

LEONARD J. SCINTO, Ph.D.

Chair and Professor

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EDUCATION

Ph.D. University of Florida – Soil and Water Science – Wetland Biogeochemistry, minor in Environmental Engineering Science and Graduate Wetlands Certification Program. May 1997.
M.S. University of Florida – Soil Science – Wetland Biogeochemistry, minor in Environmental Engineering Science. August 1990.
B.S. Northern Illinois University - Biological Sciences, minors in Chemistry and Environmental Studies. December 1985.

Thesis and Dissertation

1990 Scinto, L.J. Seasonal variation in soil phosphorus distribution in two wetlands of South Florida. MS. Thesis, University of Florida, 261 pp.
1997 Scinto, L.J. Phosphorus cycling in a periphyton-dominated freshwater wetland. PhD Dissertation, University of Florida, 186pp.

FULL-TIME ACADEMIC EXPERIENCE

Florida International University. Chair – Department of Earth and Environment. 08/2019 – Present.
Florida International University. Professor - Department of Earth and Environment. 08/2023 – Present.
Florida International University. Associate Professor - Department of Earth and Environment. 08/2015 – 08/2023
Florida International University. Director – Soil/Sediment Biogeochemistry Laboratory. 09/2007 – 06/2018.
Florida International University. Associate Director – Southeast Environmental Research Center (SERC). 03/2014 – 01/2016.
Florida International University. Assistant Professor – Department of Earth and Environment. 08/2008 – 08/2015.
Florida International University. Interim Director – SERC. 08/2012 – 03/2014.
Florida International University. Associate Director – SERC. 08/2011 – 08/2012.
Florida International University. Assistant Research Scientist – SERC. 08/2001 – 08/2008.
Florida International University. Visiting Research Scientist – SERC. 05/1997 – 08/2001.

PART-TIME ACADEMIC EXPERIENCE

University of Florida. Pre-Doctoral Fellow: Soil and Water Science Dept. 08/1994 – 05/1997.
University of Florida. Graduate Research Assistant: Soil Science Dept. 08/1987 – 08/1994.
Northwestern University. Lecturer – Department of Biological Science. 08/1986 – 05/1987.

PUBLICATIONS IN DISCIPLINE - 45 peer-reviewed journal articles, 1 proceedings, 4 book chapters, 21 governmental reports or monographs.

*denotes graduate student or post-doctoral associate under my direct supervision, ** denotes student or post-doc under a colleagues supervision.

Peer Reviewed Articles in Professional Journals

1. Chanda, S., S. Dattamudi, K. Jayachandran, **L.J. Scinto**, and M. Bhat. (2024). Application of cyanobacteria as biofertilizer for okra (*Abelmoschus esculentus*) production with a focus on environmental and ecological sustainability. *Environments*, 11, 45. <https://doi.org/10.3390/environments11030045>
2. * Onwuka, I.S., **L.J. Scinto**, R.M. Price, and A.M. Melesse. (2023). Particulate and phosphorus dynamics in the water column and sediments of canals of the lower Everglades, Florida, USA. *STOTEN*. <https://doi.org/10.1016/j.scitotenv.2023.166508>.
3. Locke-Rodriguez, J., T. Troxler, M.C. Sukop, **L.J. Scinto**, and K. Jayachandran. (2023). Floating Flowers: Screening cut-flower species for production and phytoremediation on floating treatment wetlands in South Florida. *Environmental Advances*, 13-100405. <https://doi.org/10.1016/j.envadv.2023.100405>.
4. *Onwuka, I.S., **L.J. Scinto**, and D.C. Fugate. (2023). High-resolution estimation of suspended solids and particulate phosphorus using acoustic devices in a hydrologically managed canal in South Florida, USA. *Sensors*. 23,2281. <https://doi.org/10.3390/s23042281>.
5. Stoffella, S.L., M.S. Ross, J. Sah, R.M. Price, **L.J. Scinto**, E.A. Cline, and F.H. Sklar. (2022). Flooding and planting density shape forests in an experimental Everglades Landscape: Lessons for forest restoration. *Ecosphere*. <https://doi.org/101002/ecs2.4223>.
6. *Onwuka, I.S., **Scinto, L.J.**, Mahdavi Mazdeh, A. 2021. Comparative Use of Hydrologic Indicators to Determine the Effects of Flow Regimes on Water Quality in Three Channels across Southern Florida, USA. *Water*, 13, 2184. <https://doi.org/10.3390/w13162184>.
7. Ross, M.S., S.L. Stoffella, R. Vidales, J.F. Meeder, D.C. Kadko, **L.J. Scinto**, S.C. Subedi, and J.R. Redwine. 2021. Sea-level rise and the persistence of tree islands in coastal landscapes. *Ecosystems*. <https://doi.org/10.1007/s10021-021-00673-1>.
8. *Dattamudi, S., S. Chanda, and **L.J. Scinto**. 2021. Microbial respiration and enzyme activity downstream from a phosphorus source in the Everglades, Florida, USA. *Land*, 10, 696. <https://doi.org/10.3390/land10070696>
9. *Steinmuller, H.E., Stoffella, S.L., Vidales, R., Ross, M.S., Dattamudi, S., and **L.J. Scinto**. 2021. Characterizing hydrologic effects on soil physicochemical variation within tree islands and marshes in the coastal Florida Everglades. *Soil Sci Soc Am J*. 2021: 1-12. <https://doi.org/10.1002/saj2.20270>
10. Fugate, D.C., S. Thomas, and **L.J. Scinto**. 2021. Particle dynamics in stormwater treatment areas. *Ecological Engineering*. 160:106131.
11. **Sarker, S.K., J.S. Kominoski, E.E. Gaiser, **L.J. Scinto**, D.T. Rudnick. 2020. Quantifying effects of increased hydroperiod on wetland nutrient concentrations during early phases of freshwater restoration of the Florida Everglades. *Restoration Ecology*. 28 (6): 1561-1573. doi.org/10.1111/rec.13231.
12. **Abbas, M.M., A.M. Melesse, **L.J. Scinto**, and J.S. Rehage. 2019. Satellite estimation of chlorophyll-a using moderate resolution imaging spectroradiometer (MODIS) sensor

in shallow coastal water bodies: Validation and improvement. *Water*, 11(8), 1621; doi: 10.3390/w11081621

13. **Prieto Estrada, A.E., R.M. Price, **L.J. Scinto**, F.J.M.R. Maurasse, T.W. Dreschel, F.H. Sklar, and E.A. Cline. 2019. Lithologic controls on hydrologic and geochemical processes in constructed Everglades tree islands. *Chemical Geology*. 527, 118721
14. **Velez, T.I., N.I. Moonilall, S. Reed, K. Jayachandran, and **L.J. Scinto**. 2018. Impact of *Melaleuca quinquenervia* biochar on *Phaseolus vulgaris* growth, soil nutrients, and microbial gas flux. *J. Environ. Qual.* 47:1487-1495.
15. Sullivan, P.L., R.M. Price, M.S. Ross, S.L. Stofella, J.P. Sah, **L.J. Scinto**, E. Cline, T.W. Dreschel, and F.H. Sklar. 2016. Trees: a powerful geomorphic agent governing the landscape evolution of a subtropical wetland. *Biogeochemistry*. 128(3): 369-384.
16. **Mahmoudi, M., R. Garcia, E. Cline, R.M. Price, **L.J. Scinto**, S. Wdowinski, and F. Miralles-Wilhelm. 2015. Fine spatial resolution simulation of two-dimensional modeling of flow pulses discharge into wetlands: Case study of Loxahatchee Impoundment Landscape Assessment, the Everglades. *Journal of Hydrologic Engineering*. DOI: 10.1061/(ASCE)HE.1943-5584.0001206.
17. *Serna, A., J.H. Richards, T.G. Troxler, and **L.J. Scinto**. 2015. Vegetation and soil response to hydrology in a re-created Everglades. *Hydrobiologia*. 757:167-183. DOI: 10.1007/s10750-015-2249-6.
18. **Pisani, O., **L.J. Scinto**, J.W. Munyon, and R. Jaffe. 2015. The respiration of flocculent detrital organic matter (floc) is driven by phosphorus limitation and substrate quality in a subtropical wetland. *Geoderma*. 241-242: 272-278.
19. *Rodriguez, A., **L.J. Scinto**, A. Serna. 2014. Soil accretion influenced by elevation, tree density, and substrate of reconstructed tree islands. *Soil Sci. Soc. Am. J.* 78: 2090-2099.
20. Tai, C., Y. Li, Y. Yin, **L.J. Scinto**, G. Jiang, and Y. Cai. 2014. Methylmercury photodegradation in surface water of the Florida Everglades: Importance of dissolved organic matter-methylmercury complexation. *Environ Sci Technol.* 48:7333-7340.
21. **Chambers, L.G., S.E. Davis, T. Troxler, J.N. Boyer, A. Downey-Wall, and **L.J. Scinto**. 2014. Biogeochemical effects of simulated sea level rise on carbon loss in an Everglades mangrove peat soil. *Hydrobiologia*. 726 (1): 195-211.
22. **Sullivan, P.L., R.M. Price, F. Miralles-Wilhelm, M.S. Ross, **L.J. Scinto**, T.W. Dreschel, F.H. Sklar, and E.A. Cline. 2014. The role of recharge and evapotranspiration as hydraulic drivers of ion concentrations in shallow groundwater on Everglades tree islands, Florida (USA). *Hydrological Processes*. 28 (2): 293-304.
23. Troxler, T.G., E. Gaiser, J. Barr, J.D. Fuentes, R. Jaffe, D.L. Childers, L. Collado-Vides, V.H. Rivera-Monroy, E. Castaneda-Moya, W. Anderson, R. Chambers, M.L. Chen, C. Coronado-Molina, S.E. Davis, V. Engel, C. Fitz, J. Fourqurean, T. Frankovich, J. Kominoski, C. Madden, S.L. Malone, S.F. Oberbauer, P. Olivas, J. Richards, C. Saunders, J. Schedlbauer, **L.J. Scinto**, F. Sklar, T. Smith, J.M. Smoak, G. Starr, R.R. Twilley, K. Whelan. 2013. Integrated carbon budget models for the Everglades terrestrial-coastal-oceanic gradient – Current status and needs for inter-site comparisons. *Oceanography*. 26 (3): 98-107.
24. *Serna, A., J.H. Richards, and **L.J. Scinto**. 2013. Plant decomposition in wetlands: Effects of hydrologic variation in re-created Everglades. *Journal of Environmental Quality*. 42 (2): 562-572.
25. **Subedi, S.C., M.S. Ross, and **L.J. Scinto**. 2012. Nutrient limitation in two Everglades tree species planted on constructed tree islands. *Wetlands*. 32 (6): 1163-1173.

26. Troxler, T.G., M. Ikenaga, **L. Scinto**, J.N. Boyer, R. Condit, R. Perez, G.D. Gann, and D.L. Childers. 2012. Patterns of soil bacteria and canopy community structure related to tropical peatland development. *Wetlands*. 32 (4): 769-782.
27. Osborne, T.Z., S. Newman, D.J. Scheidt, P.I. Kalla, G.L. Bruland, M.J. Cohen, **L.J. Scinto**, and L.R. Ellis. 2011. Landscape patterns of significant soil nutrients and contaminants in the greater Everglades ecosystem: Past, present, and future. *Critical Reviews in Environmental Science and Technology*. 41: 121-148.
28. **Sullivan, P.L., R.M. Price, M.S. Ross, **L.J. Scinto**, S.L. Stoffella, E. Cline, T.W. Dreschel, and F.H. Sklar. 2011. Hydrologic processes on tree islands in the Everglades (Florida, USA): tracking the effects of tree establishment and growth. *Hydrogeology Journal*. 19 (2): 367-378.
29. Stoffella, S. L., M.S. Ross, J.P. Sah, R.M. Price, P.L. Sullivan, E.A. Cline, and **L.J. Scinto**. 2010. Survival and growth responses of eight Everglades tree species along an experimental hydrological gradient on two tree island types. *Applied Vegetation Science* 13 (4): 439-449.
30. **Yamashita, Y., **L.J. Scinto**, N. Maie and R. Jaffe. 2010. Dissolved organic matter characteristics across a subtropical wetland landscape: Application of optical properties in the assessment of environmental dynamics. *Ecosystems*. 13 (7): 1006-1019.
31. **Liu, G.L., Y. Cai, Y.X. Mao, D. Scheidt, P. Kalla, J. Richards, **L. J. Scinto**, G. Tachiev, D. Roelant, and C. Appleby. 2009. Spatial Variability in Mercury Cycling and Relevant Biogeochemical Controls in the Florida Everglades. *Environmental Science & Technology*. 43 (12): 4361-4366.
32. **Liu, G.L., Y. Cai, T. Philippi, P. Kalla, D. Scheidt, J. Richards, **L. Scinto**, and C. Appleby. 2008. Distribution of Total and MethylMercury in Different Ecosystem Compartments in the Everglades: Implications for Mercury Bioaccumulation. *Environmental Pollution*. 153 (2): 257-265.
33. **Liu, G., Y. Cai, P. Kalla, D. Scheidt, J. Richards, **L.J. Scinto**, E. Gaiser, and C. Appleby. 2008. Mercury mass budget estimates and cycling seasonality in the Florida Everglades. *Environmental Science & Technology*. 42 (6): 1954-1960.
34. *Cepero, E., A. Lawrence, L.J. Scinto, and D. Gann. 2007. Effects of the Coco and Romano causeways on coastal vegetation in Northern Cuba: A critical review from space. *Cuban Affairs Quarterly Electronic Journal*. Institute for Cuban and Cuban-American Studies, University of Miami. 2(1). www.cubanaffairsjournal.org/.
35. **Thomas, S., E. E. Gaiser, M. Gantar, **L. J. Scinto**. 2006. Quantifying the response of calcareous periphyton crusts to rehydration: A microcosm study (Florida Everglades). *Aquatic Botany*. 84 (4): 317-323.
36. Gaiser, E.E., D.L. Childers, R.D. Jones, J.H. Richards, **L.J. Scinto**, and J.C. Trexler. 2006. Periphyton responses to eutrophication in the Florida Everglades: Cross-system patterns of structural and compositional change. *Limnology and Oceanography*. 51 (1): 617-630.
37. 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 (2): 717-723.

38. Gaiser, E.E., **L.J. Scinto**, J.H. Richards, K. Jayachandran, D.L. Childers, J.C. Trexler, and R.D. Jones. 2004. Phosphorus in periphyton mats provides the best metric for detecting low-level P enrichment in an oligotrophic wetland. *Water Research*. 38 (3): 507-516.
39. **Scinto, L.J.** and K.R. Reddy. 2003. Biotic and abiotic uptake of phosphorus by periphyton in a subtropical freshwater wetland. *Aquatic Botany*. 77 (3): 203-222.
40. **Noe, G.B., **L.J. Scinto**, J. Taylor, D.L. Childers, and R.D. Jones. 2003. Phosphorus cycling and partitioning in an oligotrophic Everglades wetland ecosystem: A radioisotope tracing study. *Freshwater Biology*. 48 (11): 1993-2008.
41. Childers, D.L., R.F. Doren, R. Jones, G.B. Noe, M. Rugge, and **L.J. Scinto**. 2003. Decadal change in vegetation and soil phosphorus patterns across the Everglades landscape. *Journal of Environmental Quality*. 32 (1): 344-362.
42. **Thomas, S., E.E. Gaiser, M. Gantar, A. Pinowska, **L.J. Scinto**, and R.D. Jones. 2002. Growth of calcareous epilithic mats n the margin of natural and polluted hydrosystems: Phosphorus removal implications in the C-111 basin, Florida Everglades, USA. *Lake and Reservoir Management* 18 (4): 324-330.
43. **Noe, G. B., D. L. Childers, A.L. Edwards, E. Gaiser, K. Jayachandran, D. Lee, J. Meeder, J. Richards, **L. J. Scinto**, J. Trexler and R.D. Jones. 2002. Short-term changes in phosphorus storage in an oligotrophic Everglades wetland ecosystem receiving experimental nutrient enrichment. *Biogeochemistry* 59 (3): 239-267.
44. Reddy, K.R., E. Flaig, **L.J. Scinto**, O. Diaz, and T.A. DeBusk. 1996. Phosphorus assimilation in a stream system of the Lake Okeechobee Basin. *Water Resources Bull.* 32 (5): 901-915.
45. Reddy, K.R., O.A. Diaz, **L.J. Scinto**, and M. Agami. 1995. Phosphorus dynamics in selected wetlands and streams of the Lake Okeechobee Basin. *Ecological Engineering*. 5 (2-3): 183-207.

Proceedings and Published Abstracts

Zhang, W.H., L.J. Scinto, K. Downum, L.Q. Ma, Y. Cai. 2006. Unique arsenate and arsenite uptake systems in arsenic hyperaccumulator *Pteris vittata*. Abstracts of Papers of the American Chemical Society. *In* Abstracts of Papers of the America chemical society, 231st National Meeting of the American-Chemical Society, Atlanta, GA.

Chapters in Books

1. Troxler, T.G., G. Star, J.N. Boyer, J.D. Fuentes, R. Jaffe, S.L. Malone, J.G. Barr, S.E. Davis, C.M. Collado Vides, J.C. Breithaupt, A.K. Saha, R.M. Chambers, C.J. Madden, J.M. Smoak, J.W. Fourqurean, G. Koch, J.S. Kominoski, **L.J. Scinto**, S.F. Oberbauer, V.H. Rivera-Monroy, E. Casteneda-Moya, N.O. Schulte, S.P. Charles, J.H. Richards, D.T. Rudnick, and K.R.T. Whelan. 2018. Carbon cycles in the Florida coastal Everglades: Social-ecological transformation in the South Florida Landscape. *In* Childers, D.L., E.E. Gaiser, and L.A. Ogden (eds.) *The Coastal Everglades: The Dynamics of Social-Ecological Transformation in the South Florida Landacape*. Oxford University Press.

2. Melesse, A., and **L.J. Scinto**. 2010. *Water Degradation*, Encyclopedia of Geography, Warf, B. Editor, e-book, Sage Publishers, <http://sage-ereference.com/geography/>.
3. Childers, D.L., R.D. Jones, J.C. Trexler, C. Buzzelli, S. Dailey, A.L. Edwards, E.E. Gaiser, K. Jayachandaran, A. Kenne, D. Lee, J.F. Meeder, J.H.K. Pechman, A. Renshaw, J. Richards, M. Rugge, **L.J. Scinto**, P. Sterling, and W. Van Gelder. 2002. Quantifying the effects of low level phosphorus enrichment on unimpacted Everglades wetlands with in situ flumes and phosphorus dosing. *In* Porter, J. and Porter, K. (eds). *The Everglades, Florida Bay and Coral Reefs of the Florida Keys: An Ecosystem Sourcebook*. CRC Press. Boca Raton, FL.
4. McCormick, P.V., and **L.J. Scinto**. 1999. Influence of phosphorus loading on wetland periphyton assemblages: A case study from the Everglades. p. 301 - 319. *In* K.R. Reddy et al. (ed.) *Phosphorus biogeochemistry in subtropical ecosystems*. Lewis Publishers, Boca Raton, FL.

Government Reports or Monographs

Significant peer-reviewed (noted), non-peer reviewed Technical Publications and Final Project Reports.

- 2022 LILA (Loxahatchee Impoundment Landscape Assessment) Tree Island, Ridge, Slough Studies and Site Management. **L. J. Scinto**, R. M. Price, M. Ross, and J. Sah. Final Report Phase VI. Contract No. 4600003710 to South Florida Water Management District. 58 pp.
- 2019 Settling and entrainment properties of STA particulates. **L.J. Scinto**, S. Thomas, D.C. Fugate, R.M. Price, S.B. Dessu, D.W. Perkey, and S.J. Smith. Final Report. Contract – WO4600003032-W02-9500006758 to South Florida Water Management District. 177 pp.
- 2019 Settling and entrainment properties of STA particulates. Appendix 5C-1 44-58. 2019 South Florida Environment Report – Vol I. South Florida Water Management District. **L.J. Scinto**, S. Thomas, D.C. Fugate, S. Dessu, C. Saunders, J. King, R.M. Price, J. Smith, and D. Perkey.
- 2016 LILA (Loxahatchee Impoundment Landscape Assessment) Tree Island, Ridge, Slough Studies and Site Management. **L. J. Scinto**, R. M. Price, M. Ross, and A. Serna. Final Report Phase V. Contract No. 4600002848 to South Florida Water Management District. 140 pp.
- 2014 Ecological effects of the modified water deliveries and the comprehensive Everglades restoration plan in Northeast Shark River Slough, Everglades National Park. Final Report to the U.S. Department of the Interior, National Park Service. Task Agreement No. P11A50510, CA: H5000-10-5040. E. Gaiser, J. Richards, J. Trexler, **L. J. Scinto**, D. Gann, and J. Bransky. 50 pp.
- 2013 LILA (Loxahatchee Impoundment Landscape Assessment) Tree Island, Ridge, Slough Studies and Site Management. Contract No. 4600001816 to South Florida Water Management District. **L. J. Scinto**, R. M. Price and M. Ross. 165 pp.
- 2011 Experimentally partitioning effects of hydrologic regime on vegetation and soils to develop predictive models for restoration of freshwater wetlands. **L. J. Scinto**, J.H. Richards, and A. Serna. Final Report to the U.S. Environmental Protection Agency. EM-83298101-0. 77p.

- 2011 Soil characterization in selected stormwater treatment areas: STA5. **L. J. Scinto**, W.T. Anderson, and D.N. Johnson. Final Report to the South Florida Water Management District. No: 4500058919. 74p.
- 2011 Assessment of the cycling and compartmentalization of nitrogen and phosphorus in saturated soils, sediments and the water column in Lake Jesup, Florida. W.T. Anderson, **L.J. Scinto**, S. Nielsen, S. Thomas, D. Fugate, and R. Corbett. Final Report to the St. John's River Water Management District. No: 25044 168p.
- 2010 Soil characterization in stormwater treatment areas: STA3/4. **L.J. Scinto** and D. N. Johnson. Final Report to the South Florida Water Management District. No. 4500047691. 108p.
- 2010 Phosphorus retention and sub-surface movement through the S-332 detention basins on the eastern boundary of Everglades National Park. E. Gaiser, R.M. Price, **L.J. Scinto**, and J. Trexler. Comprehensive Final Report to Everglades National Park, CA H5297-02-0106. p. 370.
- 2009 Loxahatchee Impoundment Landscape Assessment (LILA): Tree island experiments and management. **L.J. Scinto**, R. Price, and M. Ross. Final Report submitted to the South Florida Water Management District. Contract #RS-050962-A02. SERC contribution #T447 p. 117
- 2008 Assessment of N₂-fixation in Lakes Jesup and Monroe FL. **L.J. Scinto**, S. Thomas, W. Anderson, M. Ikenaga, and C. Sinigalliano. Final Report submitted to the St. John's River Water Management District Contract #SK42812. SERC contribution #T405. p. 80.
- 2008 Monitoring, Assessment, Education, and Management of Aquatic Resources in Miami Lakes, Florida. , **L.J. Scinto** and S. Thomas. Final Report submitted to the Town of Miami Lakes, FL. Miami Lakes FL, p. 103
- 2008 Loxahatchee Impoundment Landscape Assessment (LILA): Tree Island Experiments and Management. **L. J. Scinto**, R. Price and M. Ross. , Fourth Annual Report. 67 pp.
- 2008 Phosphorus retention and sub-surface movement through the S-332 detention basins on the eastern boundary of Everglades National Park, Year 3 Final Report to Everglades National Park November 7, 2008. E. Gaiser, R. Price, **L.J. Scinto** and J. Trexler, 102 pp.
- 2007 Nubbin Slough Stormwater Treatment Area (STA) Baseline Soil Characterization. **L.J. Scinto, L.J.** Final report submitted to the South Florida Water Management District, West Palm Beach, FL Contract No. 4500000037.
- 2006 Lake Harney sediment accumulation and past water quality. W.E. Anderson, **L.J. Scinto**, E.E. Gaiser, B. Carroll, A. Quillen, and D. Johnson. Final report submitted to the St. John's River Water Management District, Palatka, FL Contract No. SH45213.
- 2004 Periphyton-based stormwater treatment project. **L.J. Scinto**, S.P. Long, J. Acevedo, and J. Haberer. Final report submitted to the South Florida Water Management District, West Palm Beach, FL Contract No.C-15858-A02.
- 2004 Lake Monroe sediment accumulation and past water quality. W.E. Anderson, E.E. Gaiser and **L.J. Scinto**. Final report submitted to the St. John's River Water Management District, Palatka, FL Contract No. SG452AA.
- 2001 Using transect sampling to relate a phosphorus addition flume study to long-term water quality Impacts in Everglades marshes. D.L. Childers., E.E. Gaiser, R.D. Jones, J.

Richards, M. Ruge, **L.J. Scinto**, and J. Trexler. Final report submitted to Everglades National Park, Homestead, FL Cooperative Agreement CA5280-9-9003.

PRESENTED PAPERS AND LECTURES (*Invited)

- 2021 American Geophysical Union, December 13-17. New Orleans LA USA.
- Mahdavi Mazdeh, A., **L.J. Scinto**, V. Pena, R. Vidales, and M.S. Ross. Effect of hydrological processes on dwarf mangroves, Study area: L31 E Canal, Miami, Florida.
- 2021 International Symposium on Biogeochemistry of Wetlands, March 22-25, Virtual.
- Moderator: Session on Dynamics of Coastal Systems
 - **L.J. Scinto**, H.E. Steinmuller, M.S. Ross, S. Stofella, R. Vidales and S. Dattamudi. Variation in soils and soil biogeochemistry along a coastal ecogeomorphic setting.
- 2021 Greater Everglades Ecosystem Restoration (GEER) April 19-22 and April 26-29, 2021. Virtual Meeting.
- Kominoski, J.S., S.E. Hoffman, E.E. Gaiser, A. Nocentini, J. Redwine, C.B. Rizzie, D.T. Rudnick, S.K. Sarker, D. Shinde, **L.J. Scinto**, F.A.C. Tobias. Bridging towards restoration: Quantifying how increases in freshwater hydroperiod are changing the ecology of Northeast Shark River Slough, Everglades National Park.
 - Vidales, R., M. Ross, and **L.J. Scinto**. Red mangrove leaf traits in variable coastal environments of the Southeast Everglades.
- 2019 Greater Everglades Ecosystem Restoration (GEER) April 17-20 Coral Springs FL.
- **Scinto, L.J.**, A. Serna, D.N. Johnson, J. H. Richards, D.J. Sheidt, and P. Kalla. Spatial distribution in Everglades nutrient budgets and their effects on biogeochemical processes.
 - Scheidt, D.J., P. Kalla, J.H. Richards, D. Gann, **L.J. Scinto**, Y. Cai and G. Li. The Everglades REMAP program: Three decades of landscape assessment for critical ecosystem indicators.
 - **Scinto, L.J.**, A. Serna (presenter), D.N. Johnson, A. Rodriguez, E. Cline, T.W. Dreschel, and F.H. Sklar. Soil building processes in re-created Everglades tree islands.
 - **Scinto, L.J.**, S. Thomas (presenter), D.C. Fugate, S.B. Dessu, D.W. Perkey, R.M. Price, S.J. Smith and C.J. Saunders. Settling and entrainment properties of STA particulates.
- 2018 *Scinto, L.J. The Florida Everglades: The ecosystem and its restoration. Invited seminar to faculty, students, and public at Universidad de Ingenieria y Tecnologia, Lima, Peru. April 19, 2018
- 2018 12th International Symposium on Biogeochemistry of Wetlands, April 23-26, 2018 Coral Springs FL USA. **L.J. Scinto**, S.B. Dessu, D.C. Fugate, J. King, D.W. Perkey, R.M. Price, J. Smith, C.J. Saunders, and S. Thomas. Settling and entrainment properties of particulates in the STAs.
- 2017 International Annual Meetings, ASA, CSSA, and SSSA, October 22-25 Tampa FL.
- **Scinto, L.J.**, A. Serna, D.N. Johnson, A. Rodriguez, E. Cline, T.W. Dreschel, and F.H. Sklar. Soil building processes in created Everglades tree islands.
 - Chanda, S., A. Serna, S. Dattamudi, D.N. Johnson, J. H. Richards, **L.J. Scinto**, D.J. Scheidt, and P. Kalla. Spatial distribution in Everglades nutrient budgets and their effects on biogeochemical processes.

- Dattamudi, S., **L.J. Scinto**, S. Chanda, D.N. Johnson, and C. Pulido. Potential effects of hydrologic loading on nutrient content, microbial activity, and other ecological parameters in Northeast Shark River Slough (NESS) of Everglades National Park (ENP).
 - Pulido, C., **L.J. Scinto**, S. Chanda, S. Dattamudi, D.N. Johnson, and E. Herrera. Effects of dry down and rehydration on sediment phosphorus storage in stormwater treatment areas (STAs).
- 2017 Greater Everglades Ecosystem Restoration (GEER) April 17-20 Coral Springs FL.
- **Scinto, L.J.**, A. Serna, D.N. Johnson, J. H. Richards, D.J. Scheidt, and P. Kalla. Spatial distribution in Everglades nutrient budgets and their effects on biogeochemical processes.
 - Scheidt, D.J., P. Kalla, J.H. Richards, D. Gann, **L.J. Scinto**, Y. Cai and G. Li. The Everglades REMAP program: Three decades of landscape assessment for critical ecosystem indicators.
 - **Scinto, L.J.**, A. Serna (presenter), D.N. Johnson, A. Rodriguez, E. Cline, T.W. Dreschel, and F.H. Sklar. Soil building processes in re-created Everglades tree islands.
 - **Scinto, L.J.**, S. Thomas (presenter), D.C. Fugate, S.B. Dessu, D.W. Perkey, R.M. Price, S.J. Smith and C.J. Saunders. Settling and entrainment properties of STA particulates.
- 2016 Ecological Society of America. 101st Annual Meeting August 7-12, Ft. Lauderdale FL.
- **Scinto, L.J.**, A. Serna, A. Rodriguez, E. Cline, T.W. Dreschel, and F.H. Sklar. Litterfall, decomposition, and soil building in constructed Everglades tree islands.
 - Ross, M.S., J.F. Meeder, **L.J. Scinto**, D.E. Ogurcak, J.P. Sah, and K. Zhang. Does freshwater augmentation affect the productivity of P-limited dwarf mangrove forests?
- 2015 *Scinto, L.J. Ecological impacts of nutrient inputs: Phosphorus. Everglades Science Symposium: South Florida Natural Resources Center. December 7, 2015. Everglades National Park, Homestead FL.
- 2015 Greater Everglades Ecosystem Restoration (GEER) April 21-23 Coral Springs FL.
Co-organized (Dreschel, T.W. and Scinto, L.J.) Special Session #22: Everglades Hydrology, Peat Accretion and Loss: Effects of Carbon Exchange and Water Retention.
- **Scinto, L. J.**, A. Serna, D. Johnson, A.F. Rodriguez, F.H. Sklar, E. Cline, and T.W. Dreschel. Soil accretion on constructed Everglades tree islands: Production and decomposition affected by water levels.
 - Scheidt, D.J., D. Johnson, **L.J. Scinto**, P. Kalla. Decadal variation in Everglades peat soil at the landscape scale: Results of R-EMAP 1995-2014.
 - Richards, J.H., E.E. Gaiser, D. Gann, **L.J. Scinto**, and J. Trexler. Assessment of the ecological status and trends of northeastern Shark River Slough.
 - Sullivan, P.L., R.M. Price, L. Sternberg, J. Sah, **L.J. Scinto**, M.S. Ross, E. Cline, T.W. Dreschel, and F.H. Sklar. Hydrogeochemical response of experimental Everglades tree islands (Florida, USA): Identifying feedback mechanisms associated with early tree growth and differing geologic materials.
 - Kalla, P., D.J. Scheidt, P. Betts, L. Pounds, G. Lui, **L.J. Scinto**, Y. Cai, and K. Jones. Everglades REMAP 2013/2014: Sulfur and related provisional findings for mercury.
 - Jayachandran, K., **L.J. Scinto**, and M. Ross. Phosphatase enzymes activity in phosphorus rich Everglades tree island ecosystem.
- 2014 Scinto, L.J. Assessment of aquatic resources in the Town of Miami Lakes, FL USA. Florida Lake Management Society, 25th Annual Technical Symposium. Stuart FL June 2014.

- 2013 International Annual Meetings, ASA, CSSA, and SSSA, Tampa FL. November 2013.
- ***Scinto, L. J.**, A. Serna Salazar, M. Ross, R. Price, F. H. Sklar, T. Dreschel, and E. Cline. Soil, water, and vegetation interactions in tree island development at LILA: A physical model of the Everglades.
 - Serna, A., **L. J. Scinto**, A. F. Rodriguez and R. Schroeder. Carbon budget estimation from reconstructed (LILA) tree islands in the Everglades. Poster.
 - Rodriguez, A. F., **L. J. Scinto**, D. Johnson, and A. Serna. Characterization of newly accreted soils on reconstructed (LILA) tree islands in the Everglades. Poster.
- 2013 **Scinto, L. J.**, A. Rodriguez, A. Serna, and M. Ross. Man-made tree islands for restoration purposes in the Everglades. National Conference on Ecosystem Restoration, Chicago IL. July, 2013.
- 2013 ***Scinto, L. J.** Monitoring, assessment and management of aquatic resources in South Florida. South Florida Aquatic Plant Management Society, General Session Meeting, Coconut Creek FL. July, 2013.
- 2012 Ninth INTECOL International Wetlands Conference/Greater Everglades Ecosystem Restoration, Orlando FL.
- Scinto, L.J.**, R. Schroeder, A. Serna, E. Cline, T. Dreschel, and F. Sklar. Carbon budget estimation from Everglades tree Islands: Balancing soil accretion and CO₂ efflux.
- Schroeder, R., **L.J. Scinto**, A. Serna, E. Cline, T. Dreschel, and F. Sklar. Estimating annual soil carbon release from Everglades tree islands. Poster.
 - Price, R.M., P.L. Sullivan, M.S. Ross, L.J. Scinto, E. Cline, T. Dreschel, and F. Sklar. The role of groundwater flow in Everglades landscape restoration. Poster.
- 2011 Nielsen, S., W.T. Anderson, D.R. Corbett, D.C. Fugate, **L.J. Scinto**, S. Thomas, and S. Brandt-Williams. Understanding sediment dynamics in a shallow, hypereutrophic lake within the Middle St. Johns River: Lake Jesup, FL: Abstract OS33C-1682, presented at the 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- 2010 Greater Everglades Ecosystem Restoration, Naples FL. July, 2010.
- **Scinto, L.J.**, G. Noe, L. Larsen, and J. Harvey. Decomposition of flocculent detrital organic matter (Floc) in Everglades ridge and slough.
 - Meeder, J., and **L.J. Scinto**. Coastal hypoxia in South Florida associated with projected sea level rise and Holocene organic carbon sediment export.
- 2010 **Scinto, L.J.** Assessment of N₂-fixation in Lakes Jesup and Monroe FL. **Invited** seminar presentation to the St. John's River Water Management District, Palatka FL, March 18th.
- 2010 Anderson, W.T., S.M. Nielsen, **L.J. Scinto**, S. Thomas, D.C. Fugate, D.R. Corbett, and S. Brandt-Williams. Assessing sediment dynamics of the Middle St. Johns River Basin, Lake Jesup, Florida, USA: *Eos Trans. AGU*, 91(52), Fall Meet. Suppl. Abstract OS31B-1427.
- 2009 Anderson, W.T., S.M. Nielsen, **L.J. Scinto**, S. Thomas, D.C. Fugate, and S. Brandt-Williams. Using sediment traps in a shallow eutrophic system, lessons learned at Lake Jesup, Middle St. Johns River Basin, Florida: *Eos Trans. AGU*, 90(52), Fall Meet. Suppl. Abstract B53A-0375.
- 2008 **Scinto, L.J.**, W. Anderson, S. Thomas, S. Brandt-Williams, C. Rebenack. Understanding nitrogen fixation in two shallow eutrophic lakes in Central Florida. *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract H21 H-0929. San Francisco, CA.
- 2008 Greater Everglades Ecosystem Restoration, Naples FL. July, 2008.
- *Session Moderator: Biogeochemistry of Contaminants.

- **Scinto, L.J.**, J.H. Richards, P. Kalla, E.E. Gaiser, Y. Cai, D. Scheidt, and T. Phillipi. Trends in biogeochemical processes across the Greater Everglades Landscape – Results of R-EMAP III.
 - Dreschel, T., E. Cline, **L.J. Scinto**, R. Desliu, and F. Sklar. Implementation and operation of a large Everglades Physical Model: The Loxahatchee Impoundment Landscape Assessment (LILA).
 - M. Kline, M.S. Ross, **L.J. Scinto**, and J.H. Richards. A comparison of adjacent ridge and slough vegetative communities.
 - T.Z. Osbourne, S. Newman, P.I. Kalla, D.J. Scheidt, G. Bruland, M.J. Cohen, and **L.J. Scinto**. Landscape scale patterns of significant nutrients and contaminants in the Greater Everglades Ecosystem: Past, present and future.
 - K. R. Reddy, S. Newman, **L.J. Scinto**, J.R. White, and M.S. Koch. Phosphorus biogeochemistry of the Everglades Ecosystem.
- 2008 **Scinto, L.J.**, S. Thomas, W.E. Anderson, M. Ikenaga, C. Sinigalliano, and S. Brandt-Williams. Assessment of N₂-fixation in Lakes Jessup and Monroe, Florida. Florida Lake Management Society and the North American Lake Management Society, Southeast Regional Conference. Sandestin FL.
- 2006 Greater Everglades Ecosystem Restoration, Lake Buena Vista, FL, July 2006.
- **Scinto, L.J.**, P.I. Kalla, D.J. Scheidt, and R.J. Lewis. Biogeochemical indicators across the Greater Everglades Landscape – Results of R-EMAP III.
 - Scheidt, D.J., and **L.J. Scinto**, Soil subsidence in the public Everglades.
 - Cline, E., and **L.J. Scinto**, A review of, and future directions for research at the Loxahatchee Impoundment Landscape Assessment (LILA) Project.
 - Invited Panelist – Defining success in Everglades tree islands.
- 2005 **Scinto, L.J.**, J. Haberer, and S. Long. Sediment accretion and long term sequestration of phosphorus and carbon in periphyton-dominated stormwater treatment areas. 9th International Symposium on Biogeochemistry in Wetlands. Baton Rouge, LA.
- 2003 **Scinto, L.J.**, D.L. Childers, E.E. Gaiser, R.D. Jones, M. Rugge, and J. Trexler. Changes in ecosystem macronutrient budgets, microbial characteristics, and vegetation patterns along phosphorus-enrichment gradients in Everglades wetlands. Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem. Palm Harbor, FL.
- 2000 Boyer, J.N., D. Childers, R. Jaffe, R.D. Jones, and **L.J. Scinto**. What we already know about the water quality/nutrient status of the Florida Coastal Everglades LTER and its Environs. LTER All Scientists Meeting, Snowbird, UT.
- 2000 Gaiser, E. E., **L.J. Scinto**, J. H. Richards, D. L. Childers, J. D. Trexler, K. Jayachandran and R. D. Jones. Nutrients sequestered in microbial mats reflect remote source water quality in Everglades National Park. Greater Everglades Ecosystem Restoration Science Conference. Naples, FL.
- 1999 **Scinto, L.J.**, K. Jayachandran, and R.D. Jones. Determination of microbial parameters in flooded peat soils using fluorescent compounds. Sixth Symposium on Biogeochemistry of Wetlands. July 11-14. Ft. Lauderdale, FL.
- 1999 **Scinto, L.J.** Identifying phosphorus concentrations that will protect the Everglades: A flume dosing experiment. Poster presented at the South Florida Restoration Science Forum. May 17-19. Boca Raton, FL.

- 1995 **Scinto, L.J.** Phosphorus Dynamics in a Freshwater Wetland as Influenced by Periphytic Activity. American Society of Agronomy, St. Louis, MO. Agronomy Abstracts. p. 333.
- 1994 **Scinto, L.J.** Phosphorus Uptake Kinetics in a Periphyton Dominated Freshwater Wetland. American Society of Agronomy, Seattle, WA. Agronomy Abstracts. P. 417.
- 1992 **Scinto, L.J.** Phosphorus Assimilation Capacity of Stream Sediments and Wetland Soils. American Society of Agronomy, Minneapolis, MN. Agronomy Abstracts. p. 57.

WORK IN PROGRESS

Research in Progress.

- 2024 Identification of Lake Worth Lagoon pollutant load source areas and efficacy of surface water management upgrades designed to improve water quality. US EPA. EPA-1-R4-SFL-2023-01. R.W. Parkinson, **L.J. Scinto**, M. Ceccopieri, and P. Gardianli. 06/2024 – 05/2027. \$488,243. **Co-PI**
- 2023 Evaluating the climate resiliency and long-term performance of various types of green infrastructure to reduce land-based pollution in Biscayne Bay and mitigate floods and urban heat islands. US EPA. PID 800017283. A. Ebrahimian, A. Leon, and **L.J. Scinto**. 06/2023 – 05/2026. \$736,832. **Co-PI**

FUNDED RESEARCH

Total research grants as principal investigator (PI) = \$4,221,455.

Total research grants as Co-PI = \$12,433,021.

Total administrative grants = \$994,552.

Total career funding of all grants = \$17,649,028.

- 2023 Evaluating the climate resiliency and long-term performance of various types of green infrastructure to reduce land-based pollution in Biscayne Bay and mitigate floods and urban heat islands. US EPA. PID 800017283. A. Ebrahimian, A. Leon, and L.J. Scinto. 06/2023 – 05/2026. \$736,832. **Co-PI**
- 2021 Quantifying life cycle and phosphorus uptake and release from periphyton and phytoplankton communities. Phase 1: Short-term metagenomics and particulate analysis. South Florida Water Management District. 4600004018-WO02 through Florida Gulf Coast University. B. Rosen, S.E. Thomas, D. Fugate, and **L.J. Scinto**. 07/2021 to 9/2022, \$128,533. **Co-PI** (\$7808 to Scinto).
- 2021 The uses of cyanobacteria biofertilizers to increase crop productivity, improve soil health, and agricultural sustainability in Florida. Southern SARE Research and Education P#LS21-354. S.K. Dattamudi, K. Jayachandran, L.J. Scinto, M. Bhat, and S. Chanda. 09/2020 – 08/2023. \$300,000. **Co-PI**
- 2020 Loxahatchee impoundment landscape assessment (LILA) tree island, ridge, and slough studies. South Florida Water Management District. 4600003710. R. Price, **L.J. Scinto**, J. Sah, and M. Ross. 10/2020 to 12/2023, \$231,000. **Co-PI**
- 2020 Are the Everglades in danger of receiving increased phosphorus loads from canals? The critical role of discharge in Everglades restoration. Everglades Foundation. Everglades

- Foundation Fellowship for PhD support. **L.J. Scinto (PI)**, I. Onwuka (recipient) 01/2021 to 12/2022, \$25,000.
- 2017 Assessing near-field and landscape scale ecological effects of the modified water deliveries and comprehensive Everglades restoration plan projects in Northeast Shark River Slough, Everglades National Park. P14AC01704. E. Gaiser, J. Kominoski, **L.J. Scinto**, and J. Trexler. 09/2017 to 08/2019. \$326,523. **Co-PI**
- 2017 Loxahatchee impoundment landscape assessment (LILA) tree island, ridge, and slough studies. South Florida Water Management District. 4600003710. **L.J. Scinto**, R. Price, and M. Ross. 10/2017 to 12/2021, \$326,554. **PI**
- 2016 Settling and entrainment properties of Stormwater Treatment Area (STA) particulates. South Florida Water Management District. Technical environmental services support of the restoration strategies (RS) science plan, **L.J. Scinto** - Program Manager. Agreement 4600003032 / PO 950000 Work Order 4600003032-WO02. **L.J. Scinto**, R. Price, S.E. Thomas, and D. Fugate. 03/2016 – 10/2017. \$425, 983. **PI**
- 2016 Ecosystem dynamics in the White Zone: history, drivers, and restoration implications. US. National Park Service. Contract ID P16AC01727. M. Ross, L.J. Scinto, J. Sah, A. Wachnicka. 10/2016 – 09/30/2021. \$274,623. **Co-PI**
- 2016 Assessing near-field and landscape scale ecological effects of the modified water deliveries and comprehensive Everglades restoration plan projects in Northeast Shark River Slough, Everglades National Park. F/K/A/P14AC01639-P16AC00032-MCA. J. Kominoski, E. Gaiser, **L.J. Scinto**, and J. Trexler. 10/2016 to 09/2021. \$326,523. **Co-PI**
- 2015 Doctoral education in interdisciplinary agriculture and natural resources sciences. National Institute of Food & Agriculture. Contract ID 2015-38420-23702. K. Jayachandran, M.G. Bhat, and **L.J. Scinto**. 07/2015 – 06/2020. \$238,500. **Co-PI**
- 2014 Assessing near-field and landscape scale ecological effects of the modified water deliveries and comprehensive Everglades restoration plan projects in Northeast Shark River Slough, Everglades National Park. P14AC01639. **L.J. Scinto**, E. Gaiser, D. Gann, J. Richards, and J. Trexler. 09/2014 to 08/2017. \$422,000. **PI**
- 2014 South Florida Ecosystem Restoration Task Force Office of the Executive Director. CA# P11AT50647. Department of the Interior, Everglades National Park. 10/2012 to 9/2016. Administrative Grant through SERC. 03/2014 = \$550,300. **PI**
- 2013 Loxahatchee impoundment landscape assessment (LILA) tree island, ridge, slough studies and site management. South Florida Water Management District. 4600002848. **L.J. Scinto**, R. Price, and M. Ross. 10/2013 to 09/2016, \$510,000. **PI**
- 2013 Monitoring, modeling and assessment of the Everglades ecosystem: R-EMAP Phase IV; United States Environmental Protection Agency and Department of the Interior/National Park Service. **L.J. Scinto** - **PI** for Biogeochemistry 07/2013 to 12/2015, \$60,327. Full Project with J.H. Richards and Y. Cai \$267k.
- 2012 LILA (Loxahatchee impoundment landscape assessment) tree island, ridge and slough studies. South Florida Water Management District, 4500070962. **L.J. Scinto**, R. Price, and M. Ross. 11/2012 to 09//2013, \$49,962. **PI**
- 2012 South Florida Ecosystem Restoration Task Force Office of the Executive Director. CA# P11AT50647. Department of the Interior, Everglades National Park. 10/2012 to 9/2016. Administrative Grant through SERC. 10/2012 \$444,252. **PI**

- 2011 Soil characterization in selected Stormwater Treatment Areas – STA5. South Florida Water Management District. 4500058919. **L.J. Scinto**, W.E. Anderson. \$49,852. 03/2011 to 09/2011. **PI**
- 2009 Loxahatchee impoundment landscape assessment (LILA) tree island, ridge, slough studies and site management. South Florida Water Management District. 4600001816. **L.J. Scinto**, R. Price, and M. Ross. 06/2009 to 12/2012, \$700,000. **PI**
- 2009 Soil Characterization in Stormwater Area-3/4. South Florida Water Management District. 4500047691. **L.J. Scinto**. 09/2009 to 03/2011, \$47,923. **PI**
- 2009 Everglades floc decomposition experiments. U.S. Geological Survey. #1045550008. **L.J. Scinto**. 09/2009 to 03/2011, \$49,743. **PI**
- 2009 Interim service contract for site management at LILA. South Florida Water Management District. **L.J. Scinto**. 04/2009 to 09/2009, \$21,318. **PI**
- 2009 Water Quality/Soils and Ecological Effects of Pilot Spreader Swales along Tamiami Trail in Everglades National Park. Department of the Interior/National Park Service - Everglades National Park. CA H5000060104. E.E. Gaiser, **L.J. Scinto**, J. Richards and J. Trexler. 05/2009 to 04/2014, \$1,024,708. **Co-PI**
- 2008 Development of a spatially explicit water velocity data set for LILA. South Florida Water Management District. #4500023423. **L.J. Scinto** and P. Harlem. 09/2008 to 10/2009, \$49,875. **PI**
- 2008 Assessment of the cycling and compartmentalization of nitrogen and phosphorus in saturated soils, sediments, and the water column in Lake Jesup Florida. St. John’s River Water Management District. Contract # 25044. W.E. Anderson, **L.J. Scinto**, S. Thomas, and D. Fugate. 07/2008 to 09/2011, \$310,000. **Co-PI**
- 2006 Hydrologic models for creation and restoration of tree islands and freshwater wetlands. U.S. Environmental Protection Agency. EM-83298101. **L.J. Scinto** and J. Richards. 09/2006 to 09/2011, \$193,400. **PI**
- 2006 Monitoring, assessment, education, and management of aquatic resources in Miami Lakes, Florida. Town of Miami Lakes, FL. **L.J. Scinto**. 06/2006 to 02/2008, \$50,000.- **PI**
- 2006 Assessment of N-fixation in Lakes Jesup and Monroe, Florida. St. John’s River Water Management District. SK42812. **L.J. Scinto**, W. Anderson, M. Ikenaga, C. Sinigalliano, and S. Thomas. 11/2006 to 01/2008, \$249,953. **PI**
- 2006 Baseline soil characterization of the Nubbin Slough Pilot Stormwater Treatment Areas in the Lake Okeechobee Watershed. South Florida Water Management District. #4500000037. **L.J. Scinto**. 06/2006 to 03/2007, \$113,596. **PI**
- 2005 Loxahatchee impoundment landscape assessment (LILA) tree island experiments and site management. South Florida Water Management District. RS050962. **L.J. Scinto**, R. Price, and M. Ross. 04/2005 to 09/2009, \$605,000. **PI**
- 2005 Developing ecosystem response indicators to hydrologic and nutrient modification in Northeast Shark River Slough, Everglades National Park. Department of the Interior/National Park Service - Everglades National Park. CA H5297-05-0099. E.E. Gaiser, D. Childers, **L.J. Scinto**, and J. Trexler. 06/2005 to 06/2009, \$407,261. **Co-PI**
- 2005 Retention and subsurface flow through the S-332 Detention Basins. Department of the Interior/National Park Service – Everglades National Park. CA H5297-02-0106. E.E. Gaiser, D. Childers, R. Price, **L.J. Scinto**, and J. Trexler. 06/2005 to 06/2009. \$505,000. **Co-PI**

- 2005 Monitoring, modeling and assessment of the Everglades ecosystem: R-EMAP Phase III; FIU subcontract. Department of the Interior/National Park Service. J.H. Richards, Y. Cai, D. Childers, E.E. Gaiser, T. Philippi, and **L.J. Scinto**. 05/2005 to 09/2008, \$784,000. **Co-PI**
- 2004 Lake Harney sediment accumulation and past water quality. St. Johns River Water Management District. W.T. Anderson, E.E. Gaiser, **L.J. Scinto**. 06/2004 to 09/2005, \$94,164. **Co-PI**
- 2003 Sample collection and laboratory analysis at STA-2 field site. Professional Service Industries, Inc. /South Florida Water Management District. **L.J. Scinto**. 07/2003 to 11/2004, \$127,000. **PI**
- 2003 Sediment nutrient characteristics and paleolimnological reconstruction of Lake Monroe, FL, USA. St. Johns River Water Management District. W.T. Anderson, E.E. Gaiser, **L.J. Scinto**. 06/2003 to 12/2004, \$132,000. **Co-PI**
- 2003 U.S. Department of Energy to Hemispheric Center for Environmental Technology (HCET/FIU) sub-account for Special Technical and Analytical Services. Parent Grant DE-FG26-00NT40806. Using Monitored Natural Attenuation Processes for the Remediation of Trichloroethylene Contaminated Soils and Groundwater. 07/2003 to 11/2004, \$20,000/annum (\$40k total). **PI**
- 2001 Periphyton design and analysis for the C-51 (STA 1 – East) Project. U.S. Department of the Army. R. D. Jones, E. E. Gaiser, M. Gantar, **L. J. Scinto**. 08/2001 to 08/2003, \$792,000. **Co-PI**
- 2000 Evaluation of the potential use of periphyton-dominated storm water treatment areas for phosphorus reduction in the Southern Everglades. U.S. Department of Interior. R. D. Jones, E. E. Gaiser, M. Gantar, **L. J. Scinto**. 09/2000 to 09/2002, \$580,000. **Co-PI**
- 1999 Research integration of natural advanced treatment technologies. South Florida Water Management District. R. D. Jones, E. E. Gaiser, M. Gantar, **L. J. Scinto**. 01/1999 to 01/2001, \$570,000. **Co-PI**
- 1998 Using transect sampling to relate a phosphorus addition flume study to long-term water quality impacts in Everglades marshes. U.S. Department of Interior/National Park Service. D. Childers, C. Buzzelli, E. Gaiser, R. Jones, J. Richards, **L.J. Scinto**, J. Trexler. 11/1998 to 11/1999. \$241,000. **Co-PI**
- 1996 Numerical interpretation of Class III narrative nutrient water quality criteria for Everglades wetlands. U.S. Department of Interior/National Park Service and South Florida Water Management District. D. Childers, R. Jones, J. Trexler. \$4,600,000 for 5 years. Biogeochemistry component: **L.J. Scinto** and R.D. Jones: \$55,000 annually, Soils and Microbial Processes components: K. Jayachandran and **L.J. Scinto**: \$50,000 annually. 01/1996 to 12/2003. **Co-PI**
- 1994 Phosphorus retention by periphyton. South Florida Water Management District. K.R. Reddy and **L.J. Scinto**. Funded dissertation research. 08/1994 to 12/1996, \$128,000. **Co-PI**

PROPOSALS SUBMITTED BUT NOT FUNDED

Too numerous to list. Shown are examples since.

- 2020 Using green stormwater infrastructure to increase resilience to sea level rise, flooding, and coastal pollution in urban Southeast Florida. National Oceanic and Atmospheric

- Administration (NOAA). Ebrahimian, A., H. Fuentes, L.J. Scinto, J. Obeysekera, and T. Troxler. \$750,000. **Co-PI.**
- 2014 Interdisciplinary scientific support for the springs protection initiative. RFQ#27789. St. John's River Water Management District. Institutional (FIU) application, **L.J. Scinto** PI – biogeochemistry section. \$3 million total.
- 2013 Out of Africa: Dust in the Earth System. National Science Foundation. NSF: FESD Preliminary Proposal. Clement et al., **L.J. Scinto**, collaborator. FIU = \$335k.
- 2013 Development of a collaborative-research augmented immersive environment for computation and visualization in disaster readiness and response. National Science Foundation. NSF MRI 13-517. Newman et al., **L.J. Scinto**, collaborator. \$1.2 million.
- 2012 An interdisciplinary graduate traineeship in the data-driven engineering of sustainable built environments. National Science Foundation. NSF IGERT 11-533. Mirmiran et al. **L.J. Scinto**, collaborator. \$2.7 million.
- 2011 Improving TMDL and waste load allocation permit limits by determination and application of new sediment diagenesis input parameters in current water quality models: STREAMS II. U.S. Environmental Protection Agency through Cadmus Inc. **Scinto, L.J.**, W.T. Anderson, and S. Thomas. \$156k.
- 2010 South Florida wetlands mercury hotspot study. South Florida Water Management District. Y. Cai, **L.J. Scinto**, and G. Liu. \$615k.
- 2009 Paradox of nutrient-rich, warm climate peatlands: plant- vs. microbial-mediated C dynamics. National Science Foundation. T. Troxler, J. Boyer, **L.J. Scinto**, and R. Jaffe. \$651k.

PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS

- 2014 Token of appreciation medallion from the Arthur R. Marshall Loxahatchee National Wildlife Refuge for promoting the Everglades and its Restoration.
- 2014 Certificate of appreciation – South Florida Aquatic Plant Management Society
- 2012 Invited to attend presentation by Vice-President J. Biden, Senator B. Nelson, and Representative A. Hastings as a representative of FIU/SERC involved in Everglades Restoration. April 23, 2012

University

- 2012 Florida International University 2012 Top Scholar Award

OFFICES HELD IN PROFESSIONAL SOCIETIES

Professional Affiliations

- Florida Coastal Everglades Long-term Ecological Research, National Science Foundation - Collaborator.
- Ecological Society of America - Member
- American Society of Agronomy - Soil Science Society of America - Member
- Gamma Sigma Delta - Member
- South Florida Water Management District - Expert Advisor

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

Professional Service

Greater Everglades Ecosystem Restoration 2008. Moderator of symposium on biogeochemistry of contaminants.

Invited Scientific Advisor to RECOVER team (ACOE and SFWMD) for evaluation of the Central Everglades Planning Project (CEPP) Alternatives. January 18, 2013.

Participant in “Empowering capable climate communicators” 24 hour training program developing lectures and discussion on climate change knowledge and communication methods. University of Miami, Spring 2011.

Reviewer for several journals including; J. Environmental Quality, Limnology and Oceanography, Soil Science Society of America Journal, Biogeochemistry, Environmental Science and Technology, and Wetlands, Environmental Management, among others.

Reviewer of National Science Foundation proposals.

Reviewer of proposal to the US. Environmental Protection Agency.

University Service

Chair, FIU Provost’s Office Chair’s Advisory Committee. 2022 – present.

Vice-President and Parliamentarian of the College of Arts, Sciences, and Education Council of Chairs. 2019 - present

Evaluation Committee for Fleet Service, FIU 2015 - Assisted FIU Business Services with the review and selection of a new service provider for the University’s vehicle fleet as a member of a five-person committee.

Actively involved in University-wide initiatives including the development of potential Centers (e.g. Center for Sustainable Built Environments, Sea-Level Solutions Center) and writing cross-College proposals (e.g. NSF-Research Traineeship NRT Program).

Boating Safety Advisory Board: organizing member in 2010 – included detailed analysis of FIU’s boating practices, writing new procedures and policies. Ultimately this Board developed into the Scientific Boat Safety Committee (see below).

Scientific Boat Safety Committee (SBSC): since 2013 (organizing member) – responsible for ensuring that all research-related boating activities are conducted in a manner that will maximize safety. 2013 – 2016.

Southeast Environmental Research Center – Interim Director; responsible for the management, outreach and organization of a research center with 24 participating faculty and \$10 million in annual grant income. 2012 - 2014

Southeast Environmental Research Center – Two-time Associate Director: support the administration of SERC under the Director. 2011 – 2012 and 2014 – 2015.

Soil/Sediment Biogeochemistry Laboratory (SBL) – Director of an FIU Core Facility; responsible for operating a laboratory that analyzes samples for other research groups at FIU and externally. 2006 – 2018.

Radiation Control Committee Member – Responsible for advisement on policies regarding radio-isotope use at the University level.

Field Research Safety Advisory Board Member - Responsible for advisement on policies regarding Fieldwork procedures, equipment, and safety at the University level. Organizing member 2010 - 2016.

Departmental Service

Chair – 08/2019 – present.

Search and Screen Committee for Environmental Sustainability Position - 2018

CASE Curriculum Committee: 08/2018 – 08/2019

Secretary - Department of Earth and Environment: 08/2008 to 09/2013 and 2015-2016

Field Operations Center Committee Chair, SERC – Work with the SERC Director to oversee policies and procedures regarding procurement, use, and maintenance of field equipment, vehicles, boats, and airboats.

Search and Screen Committee for Energy Policy Faculty Position - 2012

Search and Screen Committee for Agroecology Research Scientist Position - 2014

Community Service

Advisor on Environmental Issues to Commissioner Marc Sarnoff of the City of Miami

Commission including partial rewrites of the City's Tree Ordinance, review of City plans for Tree Canopy development in Coconut Grove, and contributed to the Waterfront Master Plan.

2012 Miami-Dade County Public School Intel International Science and Engineering Fair – Selection committee member judging county high school science projects for advancement to State of Florida level competition.

Village of Center Grove Neighborhood Association – Member, Board of Directors.

Tree-mendous Miami - Member, Board of Directors.

King Mango Strut, Inc. - Member, Board of Directors.

TEACHING (abbreviated)

Courses Developed

ISC6153 – Environments of a Changing Planet. Developed with Dr. W. Anderson. Taught as a core requirement course for graduate students in the Department of Earth and Environment. This course is an entry graduate-level course emphasizing Global Biogeochemistry especially as influenced by anthropogenic forcing.

EVR5320 – Environmental Resource Management. Course developed for the Professional Science Master's Degree (PSM) in Environmental Policy and Management (EPM).

EVR5069/PCB4452 – Wetlands Ecology and Management and Introduction to Wetlands Ecology. Developed jointly with Drs. M. Ross and J. Richards. Taught to senior undergraduate (PCB4452) and graduate students (EVR5069) this course emphasizes the principles of ecology and management of freshwater and estuarine wetlands.

Course Taught

(S = spring semester, F = fall semester/Year/enrollment).

ISC6153 – Environments of a Changing Planet: S/2015/26; S/2016/10; S/2017/18; S/2018/17; S/2019/22; S/2020/25; S/2021/13; S/2022/27.

EVR5320 – Environmental Resource Management-PSM/EPM: F/2014/11; F/2015/13; F/2016/17; F/2017/10; F/2018/10.

EVR3011- Environmental Science and Pollution: F/2016/45; F/2017/36; F/2018/46.

EVR5069 - Wetlands Ecology and Management: F/2010/17; F/2012/19; F/2014/10; F/2016/7; F/2019/6.

PCB4452 – Introduction to Wetlands Ecology: F/2010/50; F/2012/43; F/2014/41; F/2016/16; F/2019/24.

EVR5005/5006 – Environmental Science and Sustainability: F/2008/12; F/2009/13; F/2010/9; F/2011/16; F/2013/12.

EVR5320 – Environmental Resources and Management: S/2009/13.

EVR3013 – Ecology of South Florida: S/2010/94; F/2011/154.

EVR5907, 6971, GLY6910 – Graduate independent studies, supervised research, and Master's thesis: Numerous students most semesters since 2008.

Graduate Students and Post-docs Supervised

A. Mahdavi Mazdeh, Ph.D. 2021 – 2021, Post-doc.

Havalend Steinmuller, Ph.D. 2020 – 2021, Post-doc.

Sanku Dattamudi, Ph.D. 2016 – 2018, Post-doc.

Alexandra Serna, Ph.D. 2010 – 2015, Post-doc.

Serge Thomas, Ph.D. 2008-2009, Post-doc, currently Faculty at Florida Gulf Coast University.

Carlos Pulido - Current Ph.D. student

Ikechukwu Onwuka – PhD 2023. Dissertation “Effects of discharge on water quality and sediments in South Florida’s Everglades canals, USA.

Mark Gazaleh – MS. 2016. Department of Earth and Environment, FIU. Non-Thesis

Bradley Schonhoff – MS. 2015. Department of Earth and Environment, FIU. Thesis “Gaseous carbon emissions (Methane and Carbon Dioxide) from wetland soils in a re-created Everglades landscape.

Rachel Kotkowski – MS. 2014. Department of Earth and Environment, FIU. Thesis “Environmental influences on bacterio-phytoplanktonic coupling and bacterial growth efficiency in a sub-tropical estuary.” Co-Chair with J. Boyer.

Andres Rodriguez – MS. 2013. Department of Earth and Environment, FIU. Thesis “Soil building processes in reconstructed tree islands in the Everglades, Florida.”

William Robert Millar – MS. 2013. Department of Earth and Environment, FIU. Non-Thesis

Robert Schroeder, MS. 2012. Department of Earth and Environment, FIU. Thesis “Soil carbon dioxide and methane flux from Everglades tree island and ridge landscape.”

Diana Johnson, MS. 2007, Department of Environmental Studies, FIU. Thesis “Biogeochemical analysis of recent lake sediments of Lake Harney, FL”.

Undergraduate Honors College Students Supervised

Carlos Pulido – 2017. McNair Fellow – “Effects of dry down and rehydration on sediment phosphorus storage in stormwater treatment areas (STAs).

Marie Annoual – 2012. Honors College – Senior project. “Does mud pass gas?”