Paul Julian II

SwampThingEcology.org SwampThingPaul

Professional Summary

Broad-based experience with range of ecosystems and disciplines. Knowledgable in statistical and spatial analysis of environmental data including chemical, hydrologic and ecological data on the landscape scale.

Education

2018 Ph.D. Soil and Water Science

University of Florida

Gainesville, Florida

 Dissertation: Biogeochemical controls of water column productivity and nutrient cycling in semitropical wetlands. A case study from the Everglades Stormwater Treatment Areas.

2010 M.Sc. Environmental Science

Florida Gulf Coast University

Fort Myers, Florida

• Thesis: Habitat Selection by the Florida Panther in Response to Melaleuca Removal within Big Cypress National Preserve.

2005 B.Sc. Biochemistry

Benedictine College

Atchison, Kansas

• Senior Project: The Quantitative Study of Mercury in Atchison Area Water Sources.

Professional Experience

2011 - Present Everglades Technical Lead

Florida Department of Environmental Protection

Fort Myers/Tallahassee, Florida

- Perform water quality compliance calculations.
- Support federal and state restoration planning efforts.
- · Conduct data mining and analysis of environmental data.
- Synthesize and author technical reports.
- Participate in multi-agency regulatory and science review team.
- Technical review of submittals consistent with the Clean Water Act.

2016 - 2018 Graduate Research Assistant

University of Florida

Gainesville/Fort Pierce, Florida

- Analysis of water quality and soil nutrient data.
- · Aid in writing quarterly and annual reports.
- Participate in project workshops and present project related results to stakeholders, and scientific communities at national and international conferences.

2015 - 2015 Adjunct Faculty

Florida Gulf Coast University

Fort Myers, Florida

• Instructor of undergraduate Scientific Process

2010 - 2011 **Biological Scientist**

Florida Fish and Wildlife Research Institute

Saint Petersburg, Florida

- Operation of boats in marine and estuarine environments.
- Collect environmental samples (i.e. water, vegetation, sediment/soil) for analysis according to acceptable standardized methods.
- Geostatistical analysis, photo-interpretation, spatial analysis, and writing reports/summaries

2008 - 2009 HLB Lab Manager

University of Florida

Immokalee, Florida

- Analysis of plant samples for agricultural pathogens including Huanglongbing (HLB; Citrus Greening).
- Analyses include advanced molecular biological techniques including DNA/RNA isolations, RFPL, PCR, RT-PCR and qPCR.
- Field sampling, data entry and report writing.
- · Maintain everyday laboratory operation.
- Interact and consult with growers.

2007 - 2008 Graduate Research Assistant

Florida Gulf Coast University

Fort Myers, Florida

 Analysis of existing water quality data to aid in the selection of water quality targets for southwest Florida.

2007 - 2008 Technical Director/Chemist

HBEL Inc.

Lehigh Acres/Fort Myers, Florida

- Analyze drinking water, waste water and environmental samples according approved protocols.
- Writing technical reports and grants, data entry and field sampling.
- Maintain everyday laboratory operation.
- Interact with current and potential clients.

2005 - 2007 Staff Chemist II

Mote Marine Laboratory

Sarasota, Florida

- Operation of boats in marine and estuarine environments.
- Collect and analyse sediment and water samples from marine, estuarine and freshwater environments.
- Maintain a variety of instruments, manage field operations, and data entry.

Informatics and Programming

Expertise: R, R-Studio, Git/Github, Markdown, LaTex, MS Access

Familiarity: Python, QGIS, HTML, Inkscape

- Programming Portfolio: swampthingecology.org/WorkExamples.html.
- **Julian**, P and D Helsel (*In Development*) NADA2: Nondetects and Data Analysis for Environmental Data 2. R-Package Version 0.1.0.
- Julian, P (2020) EPGMr:Implementation of the Everglades Phosphorus Gradient Model in R. R-Package Version 1.0.0. https://CRAN.R-project.org/package=EPGMr
- Julian, P (2019) AnalystHelper: Helper functions developed over the years to extract and format data. R-Package Version 0.1.0. https://github.com/SwampThingPaul/AnalystHelper

Publications

Google Scholar Citations = 142 H-Index = 7 i10-Index = 5

In Prep/Submitted

- 1. **Julian**, P, S Gerber and AJ Reisinger. (*In Prep*). Just rolling along: Translating stream nutrient spiraling concepts to wetland nutrient uptake and transport mechanisms.
- 2. **Julian**, P, and TZ Osborne (*In revision*). Understanding potential drivers of aquatic metabolism in a subtropical treatment wetland. *Aquatic Sciences*. *Pre-Print*.
- 3. Marazzi, L, P **Julian**, and R Mazebedi (*Submitted*). "Wetland Monitoring: Understanding Variability and Change in Ecological Condition". In: *Ramsar Wetlands: Value, Assessment, Management*. Ed by P Gell, N Davidson, and M Finlayson.

Peer Review

- Kominoski, JS, EE Gaiser, E Castañeda-Moya, SE Davis, S Dessu, P Julian, DY Lee, L Marazzi, VH Rivera-Monroy, and A Sola (2020). Disturbance legacies increase and synchronize nutrient concentrations and bacterial productivity in coastal ecosystems. *Ecology* 101(5).
- 2. **Julian**, P (2020). Getting the science right to protect and restore our environment. A critique of Lapointe et al. (2019) Nitrogen enrichment, altered stoichiometry, and coral reef decline at Looe Key, Florida Keys, USA: a 3-decade study. *Marine Biology* **167**(5), 68.
- 3. **Julian**, P, S Gerber, RK Bhomia, J King, TZ Osborne, and AL Wright (2020). Understanding stoichiometric mechanisms of nutrient retention in wetland macrophytes: stoichiometric homeostasis along a nutrient gradient in a subtropical wetland. *Oecologia*.
- Schafer, T, N Ward, P Julian, KR Reddy, and TZ Osborne (2020). Impacts of Hurricane Disturbance on Water Quality across the Aquatic Continuum of a Blackwater River to Estuary Complex. *Journal of Marine Science and Engineering* 8(6), 412.
- 5. Carey, J, K Jankowski, P **Julian**, L Sethna, P Thomas, and JJ Rohweder (2019). Exploring Silica Stoichiometry on a Large Floodplain Riverscape. *Frontiers in Ecology and Evolution* **7**, 346.
- 6. **Julian**, P (2019). Spatial Ecology and Conservation Modeling. Applications with R. Robert Fletcher, Marie-Josée Fortin: Book Review. *Austral Ecology*.
- 7. **Julian**, P, S Gerber, RK Bhomia, J King, TZ Osborne, AL Wright, M Powers, and J Dombrowski (2019). Evaluation of nutrient stoichiometric relationships among ecosystem compartments of a subtropical treatment wetland. Do we have "Redfield wetlands"? *Ecological Processes* 8(1), 20.
- 8. Marazzi, L, CM Finlayson, PA Gell, P **Julian**, JS Kominoski, and EE Gaiser (2018). Balancing wetland restoration benefits to people and nature. *Solutions Journal* **9**(3).
- 9. **Julian**, P and T Osborne (2018). From lake to estuary, the tale of two waters: A study of aquatic continuum biogeochemistry. *Environment Monitoring and Assessment* **190**(96), 1–24.
- 10. **Julian**, P (2017). Assessment of Upper Taylor Slough water quality and implications for ecosystem management in Everglades National Park. *Wetlands Ecology and Management* **25**(2), 191–209.
- 11. **Julian**, P (2017). Letter to the Editor regarding Surratt D, Shindle D, Yongshan W, et al. Letter to the Editor regarding: Julian P, 2017. Assessment of Upper Taylor Slough water quality and implications for ecosystem management in Everglades National Park. *Wetlands Ecology and Management*, 1–3.
- 12. **Julian**, P, R Chambers, and T Russell (2017). Iron and Pyritization in Wetland Soils of the Florida Coastal Everglades. *Estuaries and Coasts* **40**(3), 822–831.
- 13. **Julian**, P, S Gerber, AL Wright, B Gu, and TZ Osborne (2017). Carbon pool trends and dynamics within a subtropical peatland during long-term restoration. *Ecological Processes* **6**(1), 43–57.
- 14. **Julian**, P (2016). Commentary on "Mitsch et al., 2015, Protecting the Florida Everglades wetlands with wetlands: Can stormwater phosphorus be reduced to oligotrophic conditions?". *Ecological Engineering* **108**, 333–337.
- 15. **Julian**, P, AL Wright, and TZ Osborne (2016). Iron and sulfur porewater and surface water biogeochemical interactions in subtropical peatlands. *Soil Science Society of America Journal* **80**(3), 794–802.
- 16. **Julian**, P, B Gu, and AL Wright (2016). Mercury Stoichiometric Relationships in a Subtropical Peatland. *Water, Air, & Soil Pollution* **227**(12), 472.
- 17. **Julian**, P (2015). South Florida Coastal Sediment Ecological Risk Assessment. *Bulletin of environmental contamination and toxicology* **95**(2), 188–193.
- 18. **Julian**, P and B Gu (2015). Mercury accumulation in largemouth bass (Micropterus salmoides Lacépède) within marsh ecosystems of the Florida Everglades, USA. *Ecotoxicology* **24**(1), 202–214.
- 19. **Julian**, P, B Gu, and G Redfield (2015). Comment on and Reinterpretation of Gabriel et al. (2014) 'Fish Mercury and Surface Water Sulfate Relationships in the Everglades Protection Area'. *Environmental Management* **55**(1), 1–5.
- 20. **Julian**, P (2014). Reply to "Mercury Bioaccumulation and Bioaccumulation Factors for Everglades Mosquitofish as Related to Sulfate: A Re-Analysis of Julian II (2013)". *Bulletin of Environmental Contamination and Toxicology* **93**(5), 517–521.
- 21. **Julian**, P (2013). Comment on "Spatial and temporal phosphorus distribution changes in a large wetland ecosystem" by X. Zapata-Rios et al.: Commentary. *Water Resources Research* **49**(4), 2312–2313.
- 22. **Julian**, P (2013). Mercury Bio-concentration Factor in Mosquito Fish (Gambusia spp.) in the Florida Everglades. *Bulletin of Environmental Contamination and Toxicology* **90**(3), 329–332.
- 23. **Julian**, P (2013). Mercury hotspot identification in Water Conservation Area 3, Florida, USA. *Annals of GIS* **19**(2), 79–88.
- 24. **Julian**, P and M Cunningham (2013). Total mercury concentration in Florida black bear (Ursus americanus floridanus). *Florida Scientist* **76**(1).

- 25. **Julian**, P, EE III, and M Main (2012). Influence of a Large-scale Removal of an Invasive Plant (Melaleuca quinquenervia) on Home-range Size and Habitat Selection by Female Florida Panthers (Puma concolor coryi) within Big Cypress National Preserve, Florida. *Southeastern Naturalist* 11(2), 337–348.
- 26. **Julian**, P (2011). Home range dynamics of female Florida panthers in reponse to kitten production. *Florida Scientist* **74**(4).

Technical

- 1. **Julian**, P, A Gilhooly, G Payne, and S Xue (2020). "Chapter 3A: Water Quality in the Everglades Protection Areas". In: 2020 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- Julian, P, B Gu, and K Weaver (2020). "Chapter 3B: Mercury and Sulfur Environmental Assessment for the Everglades". In: 2020 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District
- 3. **Julian**, P, A Frietag, G Payne, and S Xue (2019). "Chapter 3A: Water Quality in the Everglades Protection Areas". In: 2019 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 4. **Julian**, P, B Gu, and K Weaver (2019). "Chapter 3B: Mercury and Sulfur Environmental Assessment for the Everglades". In: 2019 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- Julian, P, A Frietag, G Payne, and S Xue (2018). "Chapter 3A: Water Quality in the Everglades Protection Areas".
 In: 2018 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 6. **Julian**, P, B Gu, and K Weaver (2018). "Chapter 3B: Mercury and Sulfur Environmental Assessment for the Everglades". In: 2018 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 7. **Julian**, P (2018). "Biogeochemical controls of water column productivity and nutrient cycling in semitropical wetlands: a case study from the everglades stormwater treatment areas". PhD thesis. Gainesville, FL: University of Florida.
- 8. **Julian**, P (2017). *Numeric Interpretation of Narrative Standards for the L-28 Interceptor Canal and Big Cypress National Preserve*. Tech. rep. Tallahassee, FL: Florida Department of Environmental Protection, p. 21.
- 9. **Julian**, P, B Gu, and K Weaver (2017). "Chapter 3B: Mercury and Sulfur Environmental Assessment for the Everglades". In: 2017 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 10. **Julian**, P, G Payne, and S Xue (2017). "Chapter 3A: Water Quality in the Everglades Protection Areas". In: 2017 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 11. **Julian**, P and R Bhomia (2017). "Transect Study: Surface Water Quality Monitoring and Analysis". In: *Evaluation of Soil Biogeochemical Properties Influcing Phosphorus Flux in the Everglades Stormwater Treatment Areas (STAs): 2016-17 Annual Report*. Ed. by K Reddy. Gainesville, FL: University of Florida, pp.317–444.
- 12. **Julian**, P, B Gu, G Redfield, and K Weaver (2016). "Chapter 3B: Mercury and Sulfur Environmental Assessment for the Everglades". In: 2016 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 13. **Julian**, P, G Payne, and S Xue (2016). "Chapter 3A: Water Quality in the Everglades Protection Areas". In: *2016 South Florida Environmental Report*. West Palm Beach, FL: South Florida Water Management District.
- 14. **Julian**, P, B Gu, G Redfield, K Weaver, T Lange, P Federick, J McCray, A Wright, F Dierberg, T DeBusk, M Jerauld, W DeBusk, H Bae, and A Ogram (2015). "Chapter 3B: Mercury and Sulfur Environmental Assessment for the Everglades". In: 2015 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 15. **Julian**, P, G Payne, and S Xue (2015). "Chapter 3A: Water Quality in the Everglades Protection Areas". In: *2015 South Florida Environmental Report*. West Palm Beach, FL: South Florida Water Management District.
- 16. **Julian**, P, B Gu, R Frydenborg, T Lange, A Wright, and J McCray (2014). "Chapter 3B: Mercury and Sulfur Environmental Assessment for the Everglades". In: 2014 South Florida Environmental Report. West Palm Beach, FL: South Florida Water Management District.
- 17. **Julian**, P, G Payne, and S Xue (2014). "Chapter 3A: Water Quality in the Everglades Protection Areas". In: *2014 South Florida Environmental Report*. West Palm Beach, FL: South Florida Water Management District.
- 18. **Julian**, P, G Payne, and S Xue (2013). "Chapter 3A: Water Quality in the Everglades Protection Areas". In: *2013 South Florida Environmental Report*. West Palm Beach, FL: South Florida Water Management District.

- 19. **Julian**, P and S Hill (2012). A.R.M. Loxahatchee National Wildlife Refuge Total Phosphorus Outlier Analysis and Proposed Alternative Screening Criterion: Distribution Independent Outlier Analysis. Tech. rep. Everglades Technical Oversight Committee.
- 20. Carlson, P, L Yarbro, A Ritzmann, H McKnight, A Viaud, K Almeida, C Nosach, and P **Julian** (2011). *Seagrass recovery in Tampa Bay: Fine-scale spatial analyses to assess progress and refine restoration targets*. Tech. rep. F2698-F. St Petersburg, FL: Florida Fish and Wildlife Conservation Commission.
- 21. **Julian**, P (2010). "Habitat Selection by the Florida Panther in Response to Melaleuca Removal Within Big Cypress National Preserve". PhD thesis. Florida Gulf Coast University.
- 22. Dixon, L and P **Julian** (2005). *Philippi creek optical brigtener investigation*. Tech. rep. Sarasota, FL: Mote Marine Laboratory.

Presentations

Numerous technical presentations not listed here have been presented at meetings including technical, environmental
policy, restoration project planning and general public audiences at public meetings, workshops and technical meetings.

Invited

1. **Julian**, P, (2020). Multivariate Statistics Tips and Tricks: Intro to PCA. *Newcastle University; Modeling, Evidence and Policy Research Group Seminar.* [*Presentation*] Material](https://github.com/SwampThingPaul/PCA_Workshop)

Oral

- 1. **Julian**, P, K August, L Simpson, T Osborne, and D Surratt (2019). Hydrologic restoration of a shallow oligotrophic marl wetland. What is the soil telling us? *Greater Everglades Ecosystem Restoration. Coral Springs, FL*.
- 2. Villapando, O, J King, R Bhomia, and P **Julian** (2018). Biogeochemical response of selected STA flow-ways to different flow scenarios. en. *12th International Symposium on Biogeochemistry of Wetlands. Coral Springs, FL*.
- 3. **Julian**, P, S Gerber, A Reisinger, and K Larios. (2018). Let's take a ride downstream. Translating nutrient spiraling concepts to wetland ecosystems. *Society of Wetland Scientists Annual Meeting. Denver, CO*.
- 4. **Julian**, P and G Fletcher (2018). Don't wave the river red gums goodbye. The role of environmental flows in restoring river water quality and riparian zones along the Wimmera River. *Society of Wetland Scientists Annual Meeting. Denver, CO*.
- 5. **Julian**, P, S Gerber, RK Bhomia, J King, TZ Osborne, AL Wright, M Powers, and J Dombrowski (2018). Did you guess which thing was not like the others? Evaluation of wetland nutrient stoichiometry and homeostasis in a subtropical treatment wetland. en. *Society of Wetland Scientists Annual Meeting. Denver, CO*.
- 6. **Julian**, P, S Gerber, RK Bhomia, J King, TZ Osborne, AL Wright, M Powers, and J Dombrowski (2018). One of these things is not like the other. Evaluation of wetland nutrient stoichiometry and homeostasis in a subtropical treatment wetland. en. *12th International Symposium on Biogeochemistry of Wetlands. Coral Springs, FL*.
- 7. Osborne, TZ, M Clark, P **Julian**, N Ward, R Collins, E Philips, and P Fletcher (2018). Translating the effects of sealevel rise in urban systems to the coastal ecosystem interface. en. *12th International Symposium on Biogeochemistry of Wetlands. Coral Springs, FL*.
- 8. Gu, B and P **Julian** (2017). High Biotic Mercury in South Florida Wetlands: Fish Trophic Position and Wading Bird Redistribution. *Greater Everglades Ecosystem Restoration. Coral Springs, FL*.
- 9. Ward, N, T Dye, P **Julian**, and T Osborne (2017). Examining the effects of hurricanes Matthew and Irma on water quality in the inter-coastal waterway, St. Augustine, FL. *American Geophysical Union, New Orleans, LA*.
- 10. Villapando, O, R Bhomia, and P **Julian** (2017). Water Quality Along inflow to Outflow Gradient of the Everglades Stormwater Treatment Areas. *Greater Everglades Ecosystem Restoration. Coral Springs, FL*.
- 11. **Julian**, P, B Gu, and A Freitag (2017). Limiting Factors in Mercury Methylation Hotspot Development: The Tangled Web. *Greater Everglades Ecosystem Restoration. Coral Springs, FL*.
- 12. **Julian**, P, R Bhomia, A Wright, and T Osborne (2017). Aquatic Productivity in Subtropical Marsh Observations from the Everglades Stormwater Treatment Areas. *Society of Wetland Scientists Annual Meeting. San Juan, Puerto Rico*
- 13. **Julian**, P, AL Wright, R Chambers, J Kominoski, T Troxler, and TZ Osborne (2017). Pyrite Formation in the Coastal Everglades: Can a Fool's Gold Indicate Sea-Level Rise?. *ASA*, *CSSA* and *SSSA* International Annual Meetings. *Tampa*, FL.
- 14. **Julian**, P, AL Wright, R Bhomia, TZ Osborne, and R Villapando (2017). Aquatic Productivity in a Subtropical Marsh Along a Soil Nutrient Gradient–an Assessment of the Everglades Stormwater Treatment Areas. *ASA*, *CSSA* and *SSSA International Annual Meetings. Tampa*, FL.

- 15. Gerber, S, K Larios, and P **Julian** (2017). Data Integration and Synthesis Framework for Understanding the Phosphorus Cycling and Reduction Mechanisms in STA Flow-ways. *Greater Everglades Ecosystem Restoration. Coral Springs, FL.*
- 16. Osborne, TZ, R Bhomia, P **Julian**, and K Reddy (2017). Spatial Distribution of Soil Biogeochemical Properties in Stormwater Treatment Area 3/4 Cells 3A and 3B. ASA, CSSA and SSSA International Annual Meetings. Tampa, FL.
- 17. **Julian**, P (2016). Hydrologic restoration of the Taylor Slough Region of Everglades National Park. Changes in water quality and implications for ecosystem management. *5th University of Florida Water Institute Symposium Gainesville*, FL.
- 18. **Julian**, P, B Gu, and K Weaver (2016). Status and Trends of Landscape-Scale Mercury in South Florida and the Everglades. *7th SETAC World Congress/SETAC North America 37th. Orlando, FL*.
- 19. **Julian**, P and R Bhomia (2016). Flow way Water Quality Assessment STA-2 Cell 1 and Cell 3. *P-Flux Annual Workshop. West Palm Beach*, FL.
- 20. **Julian**, P, T Osborne, J Sadle, and L Ellis (2016). Effects Of Water Management on Water and Soil Quality in Taylor Slough. *South Florida and Caribbean Cooperative Ecosystem Studies Unit. Homestead*, FL.
- 21. **Julian**, P and A Wright (2016). Can soil nutrient stoichiometry determine mercury hotspot formation in a subtropical peatland? An Everglades case study. *Society of Wetland Scientists Annual Meeting. Corpus Christi, TX*.
- 22. **Julian**, P, T Osborne, J Castro, J Sadle, and L Ellis (2016). Interpreting effects of water management on soil nutrient cycling in an oligotrophic subtropical wetland. *Society of Wetland Scientists Annual Meeting. Corpus Christi, TX*.
- 23. Osborne, T, L Simpson, T Schafer, M Camacho, P **Julian**, N Ward, and L Laplaca (2016). Alteration of hydrology by mangrove encroachment in saltmarsh ecosystems and potential impacts to ecosystem services. *Ecological Society of American. Fort Lauderdale, FL*.
- 24. Osborne, T, L Simpson, T Schafer, M Camacho, P **Julian**, N Ward, and L Laplaca (2016). Carbon biogeochemical processes along a Mangrove-Salt Marsh ecotone. *Mangrove & Macrobenthos Meeting 4. St Augustine, FL*.
- 25. Gu, B, P **Julian**, and G Redfield (2015). Spatial and Temporal Variation of Total Mercury in Mosquitofish from Everglades Marshes. *Greater Everglades Ecosystem Restoration. Coral Springs, FL*.
- 26. **Julian**, P, B Gu, G Redfield, and Weaver (2015). An Overview of Everglades Mercury Issues: Critical Questions Remain. *Greater Everglades Ecosystem Restoration. Coral Springs, FL.*
- 27. **Julian**, P (2014). Large-Scale Water Quality Improvement Projects: An Everglades Perspective. *SLER Con. Orlando, FI*
- 28. **Julian**, P, E Everham, and M Main (2012). Influence of a large-scale removal of an invasive plant (Melaleuca quinquenervia) on home range size and habitat selection by female Florida panthers (Puma concolor coryi) within Big Cypress National Preserve. *76th Florida Academy of Science Annual Meeting. Tampa*, FL.
- 29. **Julian**, P, E Everham, A Hartley, M Main, and J Burch (2010). Reduction of Home Range Size by the Florida Panther Following Melaleuca Removal in Big Cypress National Preserve. *15th Annual Exotics Species Workshop for Southwest Florida*..
- 30. **Julian**, P, B Bovard, B Brooks, M Cassani, D Ceilley, M Cruz-Alvarez, N Demers, E Everham, A Hartley, T Knight, R Leisure, J Burch, and M Main (2008). Melaleuca research at Florida Gulf Coast University. *13th annual Exotics Species Workshop for Southwest Florida*. *Fort Myers*, FL.
- 31. **Julian**, P, M Atteberry, and P Steinbach (2005). The Quantitative Study of Mercury in Atchison Area Water Sources. *Benedictine College Discovery Day. Atchison, KS*.

Poster

- 1. **Julian**, P, AL Wright, R Chambers, J Kominoski, T Troxler, and TZ Osborne (2017). Pyrite Formation in the Coastal Everglades: Can a Fool's Gold Indicate Sea-Level Rise?. *ASA*, *CSSA* and *SSSA* International Annual Meetings. *Tampa*, FL.
- Osborne, TZ, R Bhomia, P Julian, and K Reddy (2017). Spatial Distribution of Soil Biogeochemical Properties in Stormwater Treatment Area 3/4 Cells 3A and 3B. ASA, CSSA and SSSA International Annual Meetings. Tampa, FL.
- 3. August, K, P **Julian**, and T Osborne (2018). Soil nutrient enrichment post hydrologic management: A temporal analysis of Taylor slough. *12th International Symposium on Biogeochemistry of Wetlands. Coral Springs, FL*.
- 4. **Julian**, P, G Fletcher, and A Wright (2018). River runs through it. Evaluation of groundwater and surface water connectivity and its implications on riparian biogeochemistry and ecology. *12th International Symposium on Biogeochemistry of Wetlands. Coral Springs, FL.*
- 5. **Julian**, P, J Kominoski, E Gaiser, and A Wymore (2018). Is the Everglades Ecosystem a stoichiometric deviant? An investigation of ecological stoichiometry along the aquatic continuum of the Everglades ecosystem. *Florida Coastal Everglades Long Term Ecological Research Annual Scientist Meeting. Miami, FL*.

- 6. Schafer, T, N Ward, P Julian, K Reddy, and T Osborne (2018). Effects of Hurricane Irma on dissolved organic carbon fluxes along a salinity gradient. 12th International Symposium on Biogeochemistry of Wetlands. Coral Springs, FL.
- 7. Julian, P, M Powers, R Bhomia, A Wright, and J Dombrowski (2017). Key Factors Controlling Wetland Aquatic Productivity in the Everglades Stormwater Treatment Areas. Greater Everglades Ecosystem Restoration. Coral Springs, FL.
- 8. Gu, B, N Niemeyer, and P Julian (2016). Removal of mercury from surface water by constructed wetlnds in South Florida, USA. 7th SETAC World Congress/SETAC North America 37th. Orlando, FL.
- 9. Julian, P, G Redfield, and A Wright (2015). Total Phosphorus and Total Nitrogen trends in Upper Taylor Slough, Everglades National Park, Florida. 24th Annual Southwest Florida Water Resources Conference. Fort Myers, FL.
- 10. Julian, P (2014). Ecosystem Sampling Suitability: Do my monitoring locations represent the water body? Rookery Bay GIS Symposium. Naples, FL.
- 11. Julian, P (2012). Panthers in EDEN, Florida panther (Puma concolor coryi) home range responses to hydrologic change. 75th Florida Academy of Science Annual Meeting. Tampa, FL.
- 12. Julian, P and A Naccarato (2010). Latitudinal Photo Documentation of Mangrove response to a prolonged "freeze" event. Florida Gulf Coast University Research Day. Fort Myers, FL.
- 13. Julian, P, E Everham, A Hartley, M Main, and J Burch (2010). Plant community changes in Big Cypress National Preserve in Response to Melaleuca Removal. 15th Annual Exotics Species Workshop for Southwest Florida..
- 14. Julian, P and E Estevez (2009). Historic Bathymetric Analysis of Tampa Bay. 5th Tampa Bay Area Scientific Information Symposium. St Petersburg, FL.
- 15. Julian, P, S Waterman, and M Claus (2004). Determination of Metal Concentration in the Missouri River, Atchison, Kansas. Benedictine College Discovery Day. Atchison, KS.

Teaching Experience

2018	Teacher Assistant, Earth Systems Modeling
2010	University of Florida
2015	Adjunct Faculty, Scientific Process
	Florida Gulf Coast University
Student Me	entorship

2019 Tracey Shafer, PhD research/statistics

University of Florida, Whitney Marine Lab (Osborne Lab)

2018 Kaylee August, MS research/statistics

University of Florida, Whitney Marine Lab (Osborne Lab)

Professional Service		
2019 - Present	Statewide Ecosystem Assessment of Coastal and Aquatic Resources	
	Florida Department of Environmental Protection	
2020 - Present	From Poles to Tropics: A multi-biome synthesis investigating the controls on river Si exports.	
	Long Term Ecological Research	
2016 - Present	Biogeochemistry Working Group	
	Florida Coastal Everglades Long Term Ecological Research	
2019	Silicon Stoichiometry Working Group	
	Woodstoich 4	
2017	All Scientist Meeting Program Committee	
	Long Term Ecological Research	
2017	Student Organization, Off-Campus Representative	
	Florida Coastal Everglades Long Term Ecological Research	
2017	Mercury and Sulfur Special Session co-organizer	
	Greater Everglades Ecosystem Restoration Conference	
2015	Mercury and Sulfur Special Session co-organizer	
	Greater Everglades Ecosystem Restoration Conference	

Peer Review

• Wetlands, Journal of Agriculture, Ecotoxicology, Lake and Reservoir Management, Environmental Management, Ecological Engineering, Science of the Environment, Ecology and Evolution, Journal of Paleolimnology, Ecosystems, Marine Pollution, Environmental Science and Pollution Research, Lake and Reservoir Management, Annal of GIS

Technical Review

 South Florida Environmental Report (2011 - Present), Florida State Clearinghouse, Everglades Technical Oversight Committee, Aquifer Storage and Recover Pilot Project Technical Data Review, Minnesota Sea Grant

Science Communication

05/2019	Co-organizer Society of Freshwater Science Twitter poster session
	https://biotweep.wordpress.com/2018/08/27/270818-pauljulian/
05/2018	Biotweep Visiting Curator
	https://github.com/SwampThingPaul/SFSPosterUp

Outreach

- 1. Julian, P (2019). Everglades Restoration and Water Quality. *Coccoloba Chapter of the Florida Native Plant Society.*, Fort Myers, FL.
- 2. Julian, P (2019). Everglades Restoration Update. Florida Realtors Mid-Winter Meeting, Orlando, FL.
- 3. Julian, P (2019). Everglades restoration and water quality projects. *Charlotte County Water Quality Summit, Punta Gorda. FL.*
- 4. Julian, P (2018). Reclamation to Restoration The Story of Wetlands in Florida. *World Wetland Day Celebration, Fort Myers, FL*.

Collaborators

- Stuart Van Horn South Florida Water Management District
- Sue Newman South Florida Water Management District
- Ken Weaver Florida Department of Environmental Protection
- Evelyn Gaiser Florida International University
- John Kominoski Florida International University
- Stephan Davis Everglades Foundation
- Wood Dierberg DBE Environmental Inc
- · Ashley Smyth University of Florida
- Todd Osborne University of Florida
- Alan Wright University of Florida
- · Stefan Gerber University of Florida
- Bill Walker Environmental Engineer
- Donatto Surratt National Park Service
- Luca Marazzi Earthwatch Europe
- Joanna Carey Babson College
- KathiJo Jankowski United State Geological Survey
- Lienne Sethna Indiana Unveristy
- Patrick Thomas University of Oldenburg
- Max Finlayson Charles Sturt University
- Greg Fletcher Wimmera Catchment Management Authority

Updated August 25, 2020 8