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 Research Scientist II
 The Water Institute
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EDUCATION

University of South Florida	Tampa, FL	Biology	MS, 2017
Whitman College	Walla Walla, WA	Biology	BS, 2013

RESEARCH INTERESTS

Estuarine and coastal management, conservation, and restoration with an emphasis on ecosystem services and ecosystem monitoring.

PROFESSIONAL EXPERIENCE

The Water Institute	Research Scientist II, Department of Coastal Ecology	2024–Present
	Research Scientist I, Department of Coastal Ecology	2021–2023
	Research Associate II, Department of Coastal Ecology	2019–2021
Sediment Ecology Lab, Dauphin Island Sea Lab	Laboratory Manager & Research Technician	2017–2019

CERTIFICATIONS

- Professional in Project Management (PPM), Global Association for Quality Management, 2022
- Motorboat Operator Certification, Dauphin Island Sea Lab, DOI, 2018
- Open Water Dive Certification, NAUI, 2007

NOTABLE PROJECTS

Principle Investigator/Monitoring the Effects of Coastal Wetland Restoration on Fish and Invertebrates—Monitoring and Adaptive Management Activity Implementation Plan: Phase 1 Current

The Water Institute, National Oceanic and Atmospheric Administration

The Water Institute, in close collaboration with NOAA Restoration Center, is working to identify appropriate reference ranges and restoration targets for nektonic fish and invertebrate species utilizing wetlands, coastal, and nearshore habitat restoration projects based on Louisiana Department of Wildlife and Fisheries (LDWF) Fisheries Independent Monitoring Program (FIMP) data. This work also includes development of a three-year fixed area data collection plan for Barataria and Terrebonne basin.

Principle Investigator/Monitoring and Assessment of the Upper Barataria Large-Scale Marsh Creation Restoration Project: Phase 2 Current

The Water Institute, National Oceanic and Atmospheric Administration

The Water Institute, in close collaboration with NOAA Restoration Center, is working to implement and report on ecological monitoring for a 1,190 acre marsh creation project in Barataria Basin. This project involved data collection activities and synthesis reporting on project performance.

Principle Investigator/Lower Trophic Level Monitoring for Barataria Basin: Phase 2.1 Planning Phase Current

The Water Institute, National Oceanic and Atmospheric Administration

The Water Institute, in close collaboration with NOAA Restoration Center, the U.S. Geological Survey, and many academic partners, is working to plan for the implementation of a large-scale data collection effort in Barataria Basin. The Water Institute is leading the development of a monitoring implementation plan to provide a framework for managing all the elements of multi-partner field campaigns and subsequent data collection efforts.

Project Manager/Mobile City-Wide Resilience Assessment and Plan Current

The Water Institute, City of Mobile

The Water Institute has been tasked with performing a resilience assessment and developing a resilience plan for Mobile, AL. In close collaboration with the City's Chief Resilience Office and key internal and external stakeholder groups, work is ongoing to ensure that Mobile has the capacity to survive, adapt, and thrive in the face of acute shocks or chronic stressors it may experience.

Principle Investigator/Monitoring and Assessment of the Upper Barataria Large-Scale Marsh Creation Restoration Project: Phase 1 2023–2024

The Water Institute, National Oceanic and Atmospheric Administration

The Water Institute, in close collaboration with NOAA Restoration Center, is working to advance the design and implementation of ecological monitoring for a 1,190 acre marsh creation project in Barataria Bay. This project involved revision of the original project-specific monitoring and adaptive management (MAM) plan to collect a suite of ecological data over a period of 20 years, an associated synthesis reporting framework, and a data management plan.

PUBLISHED WORKS

Peer-Reviewed Publications

- Kiskaddon, E., Dalyander, P. S., DeJong, A., McHugh, C., Parfait, J., Littman, A., Hemmerling, S. A., & Dausman, A. (2023). Evaluation of emission reduction and other societal and environmental outcomes: Structured decision making for the Louisiana climate action plan. *Journal of Environmental Management*, 345(118936).
- Liu, B., Sevick, T., Jung, H., Kiskaddon, E., & Carruthers, T. (2023). Quantifying the potential contribution of submerged aquatic vegetated to coastal carbon capture in a delta system from field and Landsat 8/9-Operational Land Imager (OLI) data with deep convolutional neural network. *Remote Sensing*, 15(3765).
- Gadeken, K., Kiskaddon, E., Moore, J., & Dorgan, K. (2022). The weird and wonderful world of worms. *Frontiers for Young Minds*, 10.
- Lee, K. M., Venegas, G. R., Ballard, M. S., Dorgan, K. M., Kiskaddon, E., McNeese, A. R., & Wilson, P. S. (2022). Impacts of infauna, worm tubes, and shell hash on sediment acoustic variability and deviation from the viscous grain shearing model. *The Journal of the Acoustical Society of America*, 152(4), 2456–2474.
- Kiskaddon, E., Bienn, H., Hemmerling, S. A., Dalyander, S., Grismore, A., Parfait, J., Miner, M. D., Cameron, C., Hopkins, T. E., Allen, Y., Jones-Farrand, D., Martin, M., Tirpak, B. E., Green, M., Rhinehart, K., & Carruthers, T. JB. (2022). Supporting habitat restoration in the northern Gulf of Mexico through synthesis of data on multiple and interacting benefits and stressors. *Journal of Environmental Management*, 318, 115589.
- Kiskaddon, E., Gadeken, K., Berke, S., Bell, S., Moore, J., & Dorgan, K. (2022). Oil disturbance reduces infaunal family richness but does not affect phylogenetic diversity. *Frontiers in Environmental Science*.
- Berke, S., Dorgan, K., Kiskaddon, E., Bell, S., Gadeken, K., Clemo, W., Keller, E., & Caffray, T. (2022). Shallow infaunal responses to the Deepwater Horizon event: Implications for studying future oil spills. *Frontiers in Environmental Science*.
- Carruthers, T. J. B., Kiskaddon, E. P., Baustian, M. M., Darnell, K. M., Moss, L. C., Perry, C. L., & Stagg, C. (2021). Tradeoffs in habitat value to maximize natural resource benefits from coastal restoration in a rapidly eroding wetland: Is monitoring land area sufficient? *Restoration Ecology*.
- La Peyre, M., Sable, S., Taylor, C., Watkins, K., Kiskaddon, E., & Baustian, M. (2021). Effects of sample gear on estuarine nekton assemblage assessments and food web model simulations. *Ecological Indicators*, 133.
- Dorgan, K., Parker, R., Ballentine, W., Berke, S., Kiskaddon, E., Gadeken, K., Weldin, E., Clemo, W., Caffray, T., Budai, S., & Bell, S. (2020). Investigating the sublethal effects of oil exposure on infaunal behavior, bioturbation, and sediment oxygen consumption. *Marine Ecology Progress Series*, 635, 9–24.
- Dorgan, K., Ballentine, W., Lockridge, G., Kiskaddon, E., Ballard, M., Lee, K., & Wilson, P. (2020). Impacts of simulated infaunal activities on acoustic wave propagation in marine sediments. *The Journal of Acoustical Society of America*, 147(812).
- Kiskaddon, E., Chernicky, K., & Bell, S. (2019). Resource use by and trophic variability of *Armases cinereum* (Crustacea, Brachyura) across human-impacted mangrove transition zones. *PLoS ONE*, 14(2), e0212448.

Technical Reports

- Kiskaddon, E., Baustian, M., Sable, S., Nelson, J., Stauffer, B., Glaspie, C., Bargu, S., Sutor, M., Polito, M. (2022). Developing a Plan to Assess Lower Trophic Levels of the Barataria Estuary: Summary of Existing Data and Data Gap Analysis. The Water Institute of the Gulf, Dynamic Solutions, University of Louisiana at Lafayette, and Louisiana State University. Supported by the National Oceanic and Atmospheric Administration (NOAA). Baton Rouge, LA.
- NOAA. (2022). MAM Activity Implementation Plan: Lower Trophic Level Monitoring for Barataria Basin. Produced for and funded by the National Oceanic and Atmospheric Administration. (supporting author).
- DeJong, A., Dalyander, P.S., Kiskaddon, E., Parfait, J., Dausman, A.M., McHugh, C., Misra, S., Hemmerling, S. (2022). Consequence Analysis of a Hypothetical Portfolio of Climate Strategies: In Support of the Climate Initiatives Task Force Development of a Louisiana Climate Action Plan. The Water Institute of the Gulf. Prepared for and funded by the Louisiana’s Governor’s Office of Coastal Activities. Baton Rouge, LA.
- DeJong, A., Dalyander, P.S., Parfait, J., Kiskaddon, E., Dausman, A.M., McHugh, C., Misra, S., Hemmerling, S. (2022). Consequence Analysis of the Draft Portfolio of Climate Strategies and Actions: In Support of the Climate Initiatives Task Force Development of a Louisiana Climate Action Plan. The Water Institute of the Gulf. Prepared for and funded by the Louisiana’s Governor’s Office of Coastal Activities. Baton Rouge, LA.

- DeJong, A., Dalyander, P.S., Kiskaddon, E. (2022). USACE Southwestern Division Strategic Response Plan: Interim Workshop Synthesis. The Water Institute of the Gulf. Supported by the USACE SWD. Baton Rouge, LA.
- Kiskaddon, E., Baustian, M., Sable, S., Nelson, J., Stauffer, B., Glaspie, C., Bargu, S., Sutor, M., Polito, M. (2021). Developing a Plan to Assess Lower Trophic Levels of the Barataria Estuary: Sources and Extent of Existing Data. The Water Institute of the Gulf, Dynamic Solutions, University of Louisiana at Lafayette, and Louisiana State University. Supported by the National Oceanic and Atmospheric Administration (NOAA). Baton Rouge, LA.
- Deepwater Horizon Louisiana Trustee Implementation Group. (2021). Louisiana Trustee Implementation Group Monitoring and Adaptive Management Strategy (LA TIG MAM Strategy). Baton Rouge, 55 p. (supporting author).
- Kiskaddon, E., Bienn, H., Hemmerling, S., Dalyander, S., Grismore, A., Parfait, J., Carruthers, T. J. B. (2021). Improving SECAS Gulf-wide Integration: Integrated data for natural resource conservation and restoration in the northern Gulf of Mexico. The Water Institute of the Gulf. Prepared for and funded by the U.S. Fish and Wildlife Service via cooperative agreement F20AC00082.
- Kiskaddon, E., Green, M., Hemmerling, S., Rhinehart, K., Carruthers, T. (2021). Application of the SECAS Gulf-wide Data Suite in Restoration Planning; Case Study of Louisiana's 2017 Coastal Master Plan. The Water Institute of the Gulf & Royal Engineers & Consultants, LLC. Prepared for and funded by the U.S. Fish and Wildlife Service via cooperative agreement F20AC00082.
- Miner, M., Dalyander, P.S., DiLeonardo, D., Windhoffer, E., Georgiou, I., Dudeck, N., Carruthers, T., Kiskaddon, E. (2021). Advancement of the Southeast Conservation Adaptation Strategy (SECAS) for Project Scale Planning: Chandeleur Islands (Breton National Wildlife Refuge) Restoration. The Water Institute of the Gulf. Prepared for and funded by the U.S. Fish and Wildlife Service.
- Liu, B., Hoonshin, J., Kiskaddon, E., Carruthers, T. (2021). Aquatic Habitat Suitability Index Calculations for Mid-Breton Sediment Diversion Environmental Impact Statement. The Water Institute of the Gulf. Prepared for and funded by the Coastal Protection and Restoration Authority. Task Order TO78.
- Liu, B., Jung, H., Kiskaddon, E., Baustian, M., Visser, J., Carruthers, T. (2020). Terrestrial Habitat Suitability Index Calculations for Mid-Breton Sediment Diversion Environmental Impact Statement. The Water Institute of the Gulf. Prepared for and funded by the Coastal Protection and Restoration Authority. Task Order TO78.
- Taylor, C., La Peyre, M.K., Sable, S., Kiskaddon, E., Baustian, M. (2020). Gear Comparison Study for Sampling Nekton in Barataria Basin Marshes. Produced for and funded by the Coastal Protection and Restoration Authority. Task Order TO65.
- Cameron, S. C., Kiskaddon, E., Parfait, J., McInnis, A., Courtois, A., Carruthers, T. J. B., (2020). Southeast Conservation Blueprint Mechanics. The Water Institute of the Gulf. Prepared for and funded by the U.S. Fish and Wildlife Service. Baton Rouge, LA.
- Hemmerling, S. A., McHugh, C. M., DeMyers, C., Bienn, H. C., DeJong, A., Parfait, J., Kiskaddon, E. (2020). A community-informed framework for quantifying risk and resilience in southeast Louisiana. The Water Institute of the Gulf. Baton Rouge, LA.

Conference Proceedings and Presentations

- Kiskaddon, E., Zink, I., Doyle, S., Reeves, D., Doerr, J., Leo, J., Carle, M., Marshall, E., & Carruthers, T. (2024) *FIMP data analysis to inform reference ranges and restoration targets for nekton in Barataria and Terrebonne Basins*. [Oral presentation]. American Fisheries Society Louisiana Chapter.
- Kiskaddon, E., Baustian, M., Zink, I., Doerr, J., Leo, J., Schupp, C., Giordano, S., Gothreaux, C., & Glaspie, C. (2022, 2023). *Development of a lower trophic level baseline inventory and monitoring program to support restoration of living resources in Barataria Estuary, LA* [Oral presentation]. Benthic Ecology Meeting Society; American Fisheries Society Louisiana Chapter; Gulf Estuarine Research Society; Restore Americas estuaries Coastal and Estuarine Summit; State of the Coast.
- Kiskaddon, E., Bienn, H., Hemmerling, S., Dalyander, P. S., Grismore, A., Parfait, J., Miner, M., Hopkins, T. E., Allen, Y., Jones-Farrand, D., Martin, M., Tirpak, B. S., & Carruthers, T. (2021, November). *A strategic conservation blueprint for natural resource management in the northern Gulf of Mexico* [Oral, virtual]. Coastal and Estuarine Research Federation meeting.