

## **BRIAN DZWONKOWSKI**

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### **Education**

- 2009      Ph.D., Marine Studies w/ concentration in Physical Oceanography,  
UNIVERSITY OF DELAWARE
- 2003      M.S., Marine Studies w/ concentration in Oceanographic Remote Sensing,  
UNIVERSITY OF DELAWARE
- 1999      B.A., Mathematics (with NJ teaching certification), THE COLLEGE OF NEW  
JERSEY

### **Professional Appointments**

- 2020-Present   Associate Professor, University of South Alabama (USA), Dauphin Island, AL
- 2020-Present   Senior Marine Scientist II, Dauphin Island Sea Lab, Dauphin Island, AL
- 2018-2022   Interim Program Manager, Alabama Real-time Coastal Observing System  
(ARCOS), Dauphin Island Sea Lab (DISL), Dauphin Island, AL
- 2014-2020   Senior Marine Scientist I, Dauphin Island Sea Lab, Dauphin Island, AL
- 2014-2020   Assistant Professor, University of South Alabama (USA), Dauphin Island, AL
- 2012-2014   Research Assistant Professor, University of Maine, Orono, ME
- 2011-2012   Research Senior Marine Scientist I, Dauphin Island Sea Lab, Dauphin Island, AL
- 2009-2011   Postdoctoral Researcher, Dauphin Island Sea Lab, Dauphin Island, AL
- 2009      Postdoctoral Researcher, Physical Ocean Science and Engineering Department,  
College of Marine and Earth Studies, University of Delaware, Newark, DE
- 2007      Teaching Assistant, College of Marine and Earth Studies, University of Delaware,  
Newark, DE

- 2001-2008      Research Assistant, The Center for Remote Sensing, University of Delaware, Newark, DE
- 2000-2001      Research Assistant, The Prudential Insurance Company of America, Newark, NJ

## **Honors & Awards**

- 2023              University of South Alabama, College of Arts and Sciences, Faculty Teaching Award
- 2013              Bangor Savings Bank/Lyndon Paul LoRusso Memorial Faculty Development Travel Fund Award, University of Maine
- 2009-2010      E. Sam Fitz Award, University of Delaware, recognizing high academic achievement, professional service, and community service
- 2008              NASA Space Grant Fellowship, University of Delaware
- 2007              Prosser Research Grant Award, University of Delaware
- 2005              Delaware Sea Grant Student Award, University of Delaware
- 2004-2005      Okie Fellowship, University of Delaware
- 2002-2004      NASA Space Grant Fellowship, University of Delaware
- 2002              Okie Fellowship, University of Delaware
- 2000              Wendell B. Secor Award, The College of New Jersey, presented to the top senior mathematics majors
- 1999              Robert S. Ducan Memorial Award, The College of New Jersey, presented to the top junior mathematics major

## **Research Experience**

- 2021 - Present Mississippi Bight, Northern Gulf of Mexico - Hurricanes and Marine Heatwave and Extreme Events: This NASA project is investigating interactions between marine heatwaves, tropical cyclones, and climate modes, which addresses fundamental questions related to air-sea interaction and is improving the ‘understanding of the ocean’s role in climate variability and its prediction. Broadening the understanding of the role of the coastal ocean and its associated air-sea couplings in generating extreme events (i.e., marine heatwaves and

tropical storm intensification) is critical information needed to improve modeling and prediction efforts. The project findings will enhance the capacity to predict extreme conditions, a significant area of need for risk analysis and vulnerability assessments in coastal communities.

- 2019 - Present Coastal Mississippi and Alabama, Northern Gulf of Mexico - Hypoxia monitoring in coastal Mississippi and Alabama: The project is focuses on monitoring the dissolved oxygen conditions in the Mississippi Bight through continuous long-term measurements from a fixed mooring as well as seasonal surveys. The objective of the work is to better understanding the dissolved oxygen dynamics east of the Mississippi River Bird's foot delta.
- 2019- Present Mobile Bay, AL - NOAA Restore Science Program: The aim of this project is to determine ways in which the resilience of three key species (oysters, blue crabs, and spotted seatrout) can be enhanced under natural variability and long-term trends. In addition, this project seeks to better understand the feedbacks between these species, their ecosystem services, and fisheries management actions. Improved understanding of the responses of these species to environmental changes (current and future) and management actions will inform decisions related to economic and conservation interests of regional stakeholders.
- 2015- Present Coastal Alabama – Coastal Observing Systems: Became the Interim Project Manager of the Alabama Real-time Coastal Observing System ([arcos.disl.org](http://arcos.disl.org)) in 2018 and have been the lead investigator involved in maintaining WE-CP site, a long-term mooring station collect water column velocity and hydrographic data. ARCOS consists of 8 stations across coastal Alabama that collect and distribute real-time meteorology and water quality data. These data have been used in numerous process-oriented studies on the physical dynamics and biogeochemical characteristics of the system.
- 2019 - 2020 Coastal Mississippi and Alabama, Northern Gulf of Mexico - Rapid Response Efforts associated with the Bonnet Carré Spillway Opening: The project is quantifying the compounding impacts of a large-scale anthropogenic river diversion (opening of the Bonnet Carré Spillway) occurring in conjunction with the natural flooding cycle of local rivers. The large-scale river diversion during this specific time period in the natural hydrological cycle is expected to result in extreme hydrographic conditions which in turn will modify water quality, via enhanced potential for hypoxia and harmful algae blooms.
- 2018- 2019 Fowl River, AL - MBNEP Fowl River Marsh Study: The project addresses the range of interdisciplinary factors that impact the success of estuarine restoration efforts. One aspect of the study focuses on physical forcing and their control on the environmental conditions in which biogeochemical and ecosystem processes must

operate. The effort seeks to better understand the system salt budget and the subsequent impact on marsh health.

- 2019 - 2021 Mississippi Bight, Northern Gulf of Mexico - University of South Alabama RSDG project: Understanding turbulence in the water column and how it effects stratification is of fundamental importance to a broad range of physical and biogeochemical processes. The project is developing a new instrument capacity at the University of South Alabama that will allow measurements of turbulence in the water column from a moving platform (i.e., turbulence mooring), which will allow us to better study the impacts of near-inertial oscillations as well as other turbulence generating mechanisms and biogeochemical fluxes.
- 2016- 2018 Mississippi Bight, Northern Gulf of Mexico - NASA SUSMAP project: The life cycle of extreme hydrologic events impacts on both terrestrial and marine ecosystems. The goal of this work is to better understand the key system characteristics that determine the evolution of extreme events from their initiation in watersheds to their dissolution in the coastal ocean using satellite and in situ data sets.
- 2015- 2017 Mississippi Bight, Northern Gulf of Mexico - NOAA Harmful Algal Bloom (HAB) Response Project: During October 2015 through January 2016, a massive bloom of toxigenic *Karenia brevis* impacted Alabama coastal waters. A program of discrete water sampling was conducted at a number of locations to identify HAB species and assess the situation in around major oyster harvesting areas. In collaboration with the Robertson Lab, I have provided a physical perspective of this event from which additional HAB investigations are expected.
- 2015- 2020 Mobile Bay, AL - Center for Environmental Resiliency projects: The project addresses overarching research questions related to how and why hypoxic conditions change in response to both natural conditions and increased anthropogenic pressures present in Alabama coastal waters. The study is identifying and improving the understanding of the structure, variability, and impacts of dissolved oxygen patterns in estuarine systems of Alabama.
- 2015- 2016 Grand Bay, MS - Mississippi Water Resources Research Institute project: The project focuses on improving the understanding of water quality in Bangs Lake. The region is affected by recurrent phosphate spills from an adjacent chemical plant. A component of the project focuses on accurately describing circulation and dispersion processes in a shallow salt marsh system. This experiment involved tracking of a dye release, deployment of a short-term moorings (ADCP, CTDs, and ADVs), and the release of surface drifters.
- 2015- 2019 Mississippi Bight, Northern Gulf of Mexico - GoMRI consortium: The CONsortium for oil spill exposure pathways in COastal River-Dominated Ecosystems (CONCORDE) addresses how complex fine-scale structure and

processes in coastal waters dominated by pulsed-river plumes control the exposure, impacts and ecosystem recovery from offshore oil spills.

- 2013-2016 Penobscot Bay, ME - Interdisciplinary examination of the hydrography and general circulation of Penobscot Bay and its effect on fish populations. Physical data sets from historical and recent surveys, archived buoy data, and fish detector data are being examined to identify bio-physical interactions and relationships between environmental parameters and fish emigration routes.
- 2013-2015 Casco Bay, ME - NOAA Sea Grant project: Study of general circulation and exchange between isolated regions in Casco Bay and involves characterizing the major circulation features with Casco Bay through the analysis of velocity and density data at several inlets throughout the system
- 2012-2014 Gulf of Maine, ME: Contributing member of the Physical Oceanography Group focused on applying time series and spatial analysis techniques to various data sets from the Gulf of Maine Ocean Observing system to examine coastal processes, emphasizing across-shelf surface transport pathways
- 2010-2014 Northern Gulf of Mexico, AL - GoMRI project: Investigation of the three-dimensional Eulerian flow field and resulting Lagrangian transport pathways on the Alabama shelf project - examined the spatial and temporal variability of a shallow stratified shelf using a multi-sensor approach including multiple ADCP moorings and ship surveys, surface drifters and satellite remote sensing.
- 2009-2012 Northern Gulf of Mexico, AL - Fisheries Oceanography in Coastal Alabama (FOCAL) project: The project examined the physical processes in lower Mobile Bay and coastal water of Alabama using times series data including ship based and moored ADCP data and hydrographic data, and conduct interdisciplinary research focused on the physical-biological coupling in the coastal marine environment.
- 2008-2009 Murderkill watershed, DE - Hydrology and biogeochemistry of estuarine watersheds - examined the coupled system dynamics of a salt marsh/tributary estuarine system using times series analysis on tide and stream flow data as well as data on the water and salt fluxes into the watershed
- 2007-2008 Delaware Bay, DE - Development of multivariate real-time environmental monitoring system in Delaware Bay project - assisted in setting up and maintaining a high frequency radar site in Cape May, NJ and ADCP instruments at the Delaware Bay mouth.
- 2005 Delaware shelf, DE, R/V Cape Henlopen - Delaware Circulation And Dye Experiment (DECADE) project - assisted in the scan fish operation and collecting crab larval samples.

- 2005-2009 New Jersey shelf, NJ - Conducted time series and spatial analysis of HF radar data focused on tidal, near-inertial, and low frequency processes, emphasizing cross-shelf surface transport pathways
- 2004-2006 Delaware Bay and shelf, DE - NOAA Sea Grant project: Advanced remote sensing techniques for observing the coastal ocean, focused primarily on ocean color and SST data for coastal plume tracking
- 2002-2003 Delaware Bay, DE, R/V Cape Henlopen - Long-term trends in biogeochemistry of the Delaware Estuary - collected and processed chlorophyll samples for satellite ground truth measurements, and titration of water samples.
- 2001-2004 Delaware Bay and shelf, DE - NOAA Sea Grant project: Development and implementation of remote sensing techniques for monitoring ecosystems in Delaware Bay and adjacent coastal ocean, focused on algorithm development for satellite-based ocean color data in coastal waters

### **Publication Metrics (via google scholar)**

Citations: 1313

h-index: 24

i10-index: 39

### **Publications (Peer reviewed)** (Denotes \*student or <sup>+</sup>postdoc author mentored by Dzwonkowski)

- 55.) Oxford\*, C., **B. Dzwonkowski** and J. Goff (*Accepted 2024*) Observations of lateral variability at a deltaic-bay transition zone, Mobile Bay, Alabama. *Gulf and Caribbean Research*
- 54.) Sreeshylam\*, H., Z. Liu<sup>+</sup>, **B. Dzwonkowski**, and J. Lehrter (2024) Enhancing model temperature estimations in shallow, turbid, coastal systems, Mobile Bay, Alabama. *Ocean Modeling*, p102455.
53. Ralston, D.K., W. R. Geyer, C.C. Wackerman, **B. Dzwonkowski**, D.A. Honegger, M.C. Haller (2024) Interacting influences of tides, wind, and river discharge on the outflow plume of Mobile Bay, *Journal of Geophysical Research Oceans*. 129(9) e2024JC021288
52. Clemo, W. C., K. M. Dorgan, D.J. Wallace and **B. Dzwonkowski** (2024) Spatially variable impacts of hurricanes on shallow sediment structure. *Journal of Geophysical Research Oceans*. 129(7), p.e2023JC020820

51. Morrison, B.H., J.L. Jones, **B. Dzwonkowski** and J. Krause (2024) Tracking Vibrio: population dynamics and ecology of *Vibrio parahaemolyticus* and *V. vulnificus* in an Alabama estuary. *Microbiology Spectrum*, 12(5), pp.e03674-23.
50. **Dzwonkowski, B.**, X. Kang, B. Sahoo, J. Veeramony, S. Mitchell, and M. Xia (2023) Mixing and transport in estuaries and coastal waters: a special issue in Estuarine, Coastal, and Shelf Science. *Estuarine, Coastal, and Shelf Science*. p108370.
49. Nwankow, U, S. Howden, D. Nechaev, and **B. Dzwonkowski** (2023) Subinertial Sea Surface Heights Anomalies Estimated Using High Frequency Radar Surface Current Data in the Mississippi Bight. *Journal of Geophysical Research – Oceans*, 130(3).
48. Liu<sup>+</sup>, Z., J. Lehrter, **B. Dzwonkowski**, L. Lowe, and J. Coogan (2022), Using Dissolved Oxygen Variance to Investigate the Influence of Nonextreme Wind Events on Hypoxia in Mobile Bay, a Shallow Stratified Estuary, *Frontiers in Marine Science*. (9) p.989017
47. **Dzwonkowski, B.**, S. Fourier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2022) Hurricane Sally (2020) shifts the ocean thermal structure across the inner core during rapid intensification over the shelf, *Journal of Physical Oceanography*, 52(11), 2841-2852
46. Dykstra\*, S.L., **B. Dzwonkowski** and R Torres (2022) The role of river discharge and geometric structure on diurnal tidal dynamics, Alabama, USA. *Journal of Geophysical Research – Oceans*, 127, e2021JC018007. <https://doi.org/10.1029/2021JC018007>
45. **Dzwonkowski, B.** S. Fourier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2021) Cascading weather events amplify the coastal ocean thermal conditions prior to the shelf transit of Hurricane Sally (2020), *Journal of Geophysical Research - Oceans*. 126(12), 1-13. <https://doi.org/10.1029/2021JC017957>
44. Dykstra\*, S.L. and **B. Dzwonkowski** (2021) The role of intensifying precipitation on coastal river flooding and compound fluvial-marine events. *Water Resources Research* 52(11), p.e2020WR029363. <https://doi.org/10.1029/2020WR029363>
43. Justic, D., V. Kourafalou, G. Mariotti, S. He, R. Weisberg, Y. Androulidakis, C. Barker, A. Bracco, **B. Dzwonkowski**, C. Hu, G. Jacobs, M. Le Henaff, Y. Liu, S. Morey, J. Nittrouer, E. Overton, C. Paris, B. Roberts, K. Rose, A. Valle-Levinson, J. Wiggert (2021) A review of transport processes in the Gulf of Mexico along the river-estuary-shelf-ocean continuum and their relevance for ecological connectivity and oil transport and fate. *Estuaries and Coasts*. 1-37. <https://doi.org/10.1007/s12237-021-01005-1>
42. Gadeken, K., W. Clemo, K.M. Dorgan, M. Fung, W. Ballintine, A. Hagemayer, S. Dykstra\* and **B. Dzwonkowski** (2021) Transport of biodeposits and benthic footprint around an oyster farm, Damariscotta Estuary, Maine. *PeerJ*. 9, p.e11862. <https://doi.org/10.7717/peerj.11862>

41. Coogan\*, J., **B. Dzwonkowski**, J. Lehrter, K. Park and R. Collini (2021) Observations of dissolved oxygen and physical drivers in a shallow highly stratified estuary, *Estuarine, Coastal and Shelf Science*. 259. p.107482 <https://doi.org/10.1016/j.ecss.2021.107482>
  
40. **Dzwonkowski, B.**, J. Coogan\*, S. Fournier, G. Lockridge, K. Park and T. Lee (2020) Compounding impact of severe weather events fuels marine heatwave in the coastal ocean. *Nature Communications*. 11(1) 1-10. doi: 10.1038/s41467-020-18339-2 (Paper has received exceptional media coverage **ranking top 5% of all research outputs scored by Altimetric** including articles by the **National Geographic, The New York Times, The Guardian**, numerous other science focused websites as well as featured by a UN disaster risk reduction website.)
  
39. Axler, K.E., S. Sponaugle, C. Briseño-Avena, F. Hernandez, S. Warner, **B. Dzwonkowski**, S. Dykstra\* and R. Cowen (2020) Variability in fine-scale distributions and predator-prey relationships of larval fishes during a high discharge event in the northern Gulf of Mexico, *Marine Ecology Progress Series*. 650 37-61. doi:<https://doi.org/10.3354/meps13397>
  
38. Cole, S.M., K.M. Dorgan, W. Walton, **B. Dzwonkowski** and J. Coogan\* (2020) Seasonal and spatial patterns of mudblister worm *Polydora websteri* infestation of farmed oysters in the northern Gulf of Mexico, *Aquaculture Environment Interactions*. 12, 297-314.
  
37. Greer, A.T., A.D. Boyette, V.J. Cruz, M.K. Cambazoglu, **B. Dzwonkowski**, L.M. Chiaverano, S. Dykstra\*, C. Briseño-Avena, R.K. Cowen, and J.D. Wiggert (2020) Contrasting fine-scale distributional patterns of zooplankton driven by the formation of a diatom-dominated thin layer. *Limnology and Oceanography*. 65(9), 2236-2258. doi: 10.1002/lno.11450
  
36. Coogan\*, J., **B. Dzwonkowski**, K. Park and B. Webb (2020) Observations of restratification after a wind mixing event in a shallow highly stratified estuary, *Estuaries and Coasts*. 43(2) 272-285. <https://doi.org/10.1007/s12237-019-00689-w>
  
35. Dykstra\*, S.L. and **B. Dzwonkowski** (2020) The propagation of fluvial flood waves through a backwater-estuarine environment. *Water Resources Research* 56(2) <https://doi.org/10.1029/2019WR025743>  
 Paper featured by AGU Hydrology Section Student Subcommittee (<https://agu-h3s.org/2020/11/09/research-tidbit-where-rivers-end/>)
  
34. Fournier S., J.T. Reager, **B. Dzwonkowski**, and J. Vazquez-Cuervo (2019) Mapping freshwater origin and fate signatures as land/ocean ‘Regions of Influence’ in the Gulf of Mexico, *Journal of Geophysical Research* 124(7) 4954-4937  
**Paper featured by AGU Univere weekly – 07/24/2019**  
[https://www.magnetmail.net/actions/email\\_web\\_version.cfm?ep=QtEB41I2lk4e76VNvoP8GPHRgemRFqTudSwB5jKEceU6jw0ULsyiqxLZ1c8WBXvKz61qhMwE7\\_DOdlbGgEC4P0H6PQKrA-7XvL7T2zgH7IMtDphlG7ATud0JXsBblkDD](https://www.magnetmail.net/actions/email_web_version.cfm?ep=QtEB41I2lk4e76VNvoP8GPHRgemRFqTudSwB5jKEceU6jw0ULsyiqxLZ1c8WBXvKz61qhMwE7_DOdlbGgEC4P0H6PQKrA-7XvL7T2zgH7IMtDphlG7ATud0JXsBblkDD))



33. Coogan\*, J., **B. Dzwonkowski**, and J. Lehrter (2019) Effects of coastal upwelling and downwelling on hydrographic variability and dissolved oxygen in Mobile Bay, *Journal of Geophysical Research*, 124(2), 791-806. doi.org/10.1029/2018JC014592  
**Paper featured by GOMRI website– 08/17/2020**  
[\(https://gulfresearchinitiative.org/studies-explore-the-dynamics-of-how-offshore-oil-spills-affect-coastal-environments/\)](https://gulfresearchinitiative.org/studies-explore-the-dynamics-of-how-offshore-oil-spills-affect-coastal-environments/)
32. Lee, J., B. Webb, **B. Dzwonkowski**, A. Valle-Levinson and J. Lee (2019) Characteristics of exchange flows in a multiple-inlet microtidal-estuary: Mobile Bay, Alabama. *Journal of Marine Systems* 191, 38-50. doi.org/10.1016/j.jmarsys.2018.12.004
31. **Dzwonkowski, B.**, S. Fournier, J.T. Reager, S. Milroy, K. Park, A. Greer, A. Shiller, I. Soto, S.L. Dykstra\*, and V. Sanial (2018) Tracking the sea surface salinity and dissolved oxygen on a seasonally stratified shelf, Mississippi Bight, northern Gulf of Mexico, *Continental Shelf Research*, 169, 25-33. doi.org/10.1016/j.csr.2018.09.009
30. Vazquez-Cuervo, J., S. Fournier, **B. Dzwonkowski**, and J.T. Reager (2018) Intercomparison of in situ and remote sensing products in the Gulf of Mexico, a river-influenced system, *Remote Sensing*, 10, 1590, doi:10.3390/rs10101590
29. **Dzwonkowski, B.**, S. Fournier, K. Park, S. Dykstra\*, and J.T. Reager (2018) Water column stability and the role of velocity shear on a seasonally stratified shelf, Mississippi Bight, Northern Gulf of Mexico, *Journal of Geophysical Research*, 123, 5777-5796.  
<https://doi.org/10.101029/2017JC013G24>.
28. Coogan\*, J. and **B. Dzwonkowski** (2018) Observations of wind forcing on estuary length and salinity flux in a river-dominated, microtidal estuary, Mobile Bay, AL, *Journal of Physical Oceanography*, 1787-1802. doi:10.1175/JPO-D-17-0249.1
27. Du, J., K. Park, J. Shen, **B. Dzwonkowski**, X. Yu, and B. I. Yoon (2018) Role of baroclinicity on circulation and system flushing of a shallow, highly stratified estuary, Mobile Bay, Alabama, *Journal of Geophysical Research*, 123, 4518-4537.  
<https://doi.org/10.1029/2018JC013855>
26. Greer, A.T., A.M. Shiller, J.D. Wiggert, S.M. Parra, S.J. Warner, A.L. Deary, C. Briseño-Avena, D. Joung, A.D. Boyette, I.M. Soto, M.K. Cambazoglu, J.W. Krause, **B. Dzwonkowski**, S. Dykstra\*, T. N. Miles, L. Quas, P.J. Fitzpatrick, Y. Lau, J.A. Kastler, E. Hofmann, K.M. Martin, S.D. Howden, J.N. Moum, F.J. Hernandez, I. Church, A. Weidemann, J. Book, R.A. Arnone, S. Sponaugle, R.K. Cowen, and W.M. Graham (2018) CONCORDE: An interdisciplinary approach toward improved understanding of river-dominated coastal oceans, *Oceanography*. 31(3), 90-103  
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25. Soto, I.M., M.K. Cambazoglu, A.D. Boyette, K. Broussard, D. Sheehan, S.D. Howden, A.M. Shiller, **B. Dzwonkowski**, L. Hode, G.A. Jacobs, P.J. Fitzpatrick, R.A. Arnone, P. Mickle, G. A. Jacobs, K. Cressman (2018) Advection of *Karenia brevis* blooms from the Florida Panhandle towards the Mississippi Bight and Sound, *Harmful Algae*. 72, 46-64.  
<https://doi.org/10.1016/j.hal.2017.12.008>
24. Cambazoglu, M.K., I.M. Soto, S.D. Howden, **B. Dzwonkowski**, P.J. Fitzpatrick, Y. Lau, R.A. Arnone, and G.A. Jacobs (2017) Inflow of shelf waters into Mississippi Sound and Mobile Bay estuaries in October 2015, *Journal of Applied Remote Sensing*. 11(3), 032410  
doi:10.117/1.JRS.11.032410.
23. **Dzwonkowski, B.**, A. Greer, C. Briseno-Aveno, J. Krause, I. Soto Ramos, F. Hernandez, A. Deary, J. Wiggert, D. Joung, P. Fitzpatrick, S. O'Brien, S. Dykstra\*, Y. Lau, M. Cambazoglu, G. Lockridge, S. Howden, A. Shiller, and W.M. Graham (2017) Estuarine influence on biogeochemical properties of the Alabama shelf during the Fall season, *Continental Shelf Research*. 140(15), 96-109. <https://doi.org/10.1016/j.csr.2017.05.001>
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21. Lockridge, G., **B. Dzwonkowski**, R. Nelson, and S. Powers (2016) Development of a low-cost Arduino-based sonde for coastal applications, *Sensors*, 16, 528.  
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20. **Dzwonkowski, B.**, K. Park, and R. Collini (2015) The coupled estuarine-shelf response of a river-dominated system during the transition from low to high discharge, *Journal of Geophysical Research*, 120, 6145-6163. doi: 10.1002/2015JC010714  
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19. **Dzwonkowski, B.**, N. Pettigrew, and S. Knapp (2015) Spatial and temporal variability of the velocity and hydrographic structure in a weakly stratified system, Broad Sound, Casco Bay, Maine, *Journal of Geophysical Research*, 120, 4576-4594,  
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18. **Dzwonkowski, B.**, K. Park, Lee, J., B. Webb, and A. Valle-Levinson, (2014) Spatial variability of flow over a river-influenced inner shelf in coastal Alabama during spring, *Continental Shelf Research*, 74, 25-34.
17. **Dzwonkowski, B.**, K.-C. Wong, and W.J. Ullman (2014) Sea level and velocity characteristics of a salt marsh tidal channel of the Murderkill Estuary, Delaware, *Journal of Coastal Research*, 30, 63-74, doi: <http://dx.doi.org/10.2112/JCOASTRES-D-12-00161.1>

16. Drymon, J.M., S.P. Powers, L. Carassou, W.B. Driggers, J. Dindo, and **B. Dzwonkowski** (2013) Multi-scale analysis of the factors affecting the distribution of sharks throughout the northern Gulf of Mexico, *Fishery Bulletin*, 111, 370-380, doi: 10.7755/FB.111.4.6.
15. Lee, J., B. Webb, **B. Dzwonkowski**, K. Park, and A. Valle-Levinson, (2013), Bathymetric influences on tidal currents at the entrance to a highly stratified, shallow estuary. *Continental Shelf Research*, 58, 1-11, doi:10.1016/j.csr.2013.03.002.
14. **Dzwonkowski, B.**, and K. Park (2012) Subtidal circulation on the Alabama shelf during the Deep Water Horizon oil spill, *Journal of Geophysical Research*, 177, C03027, doi:10.1029/2011JC007664
13. **Dzwonkowski, B.**, K. Park, and L. Jiang (2011) Subtidal across-shelf surface transport and the factors that influence exchange on the Alabama shelf, *Journal of Geophysical Research*, 166, C10012, doi:10.1029/2011JC007188
12. Carassou, L., **B. Dzwonkowski**, F.J. Hernandez, S.P. Powers, K. Park, and W.M. Graham (2011) Environmental influences on juvenile fish abundances in a river-dominated coastal system, *Marine and Coastal Fisheries*, 3:1, 411-427, doi:10.1080/19425120.2011.642492.
11. **Dzwonkowski, B.**, K. Park, H.K. Ha, W.M. Graham, F.J. Hernandez, and S.P. Powers (2011) Hydrographic variability on a coastal shelf directly impacted by estuarine discharge, *Continental Shelf Research*, 31, 939-950, doi:10.1016/j.csr.2011.03.001
10. **Dzwonkowski, B.**, and K. Park (2010) Influence of wind stress and discharge on the mean and seasonal currents on the Alabama shelf of the northeastern Gulf of Mexico, *Journal of Geophysical Research*, 115, C12052, doi:10.1029/2010JC006449
9. **Dzwonkowski, B.**, B.L. Lipphardt, J.T. Kohut, X.-H. Yan, and R.W. Garvine (2010) Synoptic measurements of episodic flow events in the central Mid-Atlantic Bight, *Continental Shelf Research*, 30, 1373-1386, doi:10.1016/j.csr.2010.05.004
8. Drymon, J.M., S.P. Powers, J. Dindo, **B. Dzwonkowski**, and T. Henwood (2010) Distribution of sharks across a continental shelf in the northern Gulf of Mexico, *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science*, 2, 440-450, doi:10.1577/C09-061.1
7. **Dzwonkowski B.**, J.T. Kohut, and X.H. Yan (2009) Seasonal differences in wind-driven across-shelf forcing and response relationships in the shelf surface layer of the central Mid-Atlantic Bight, *Journal of Geophysical Research*, 114, C08018, doi:10.1029/2008JC004888

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5. Wong, K.-C., **B. Dzwonkowski**, and W.J. Ullman (2009) Temporal and spatial variability of sea level and volume flux in the Murderkill estuary, *Estuarine, Coastal and Shelf Science*, 84, 440-446, doi:10.1016/j.ecss.2009.07.008
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3. **Dzwonkowski, B.**, and X.-H. Yan (2005) Development and application of a neural network based ocean color algorithm in coastal waters, *International Journal of Remote Sensing*, 26, 1175-1200.
2. Jo, Y.-H., X.-H. Yan, **B. Dzwonkowski**, and T.W. Liu (2005) A study of the freshwater discharge from the Amazon River into the tropical Atlantic using multi-sensor data, *Geophysical Research Letters*, 32(2), L02605. doi:10.1029/2004GL021840
1. Yan, X.-H., Y.-H. Jo, **B. Dzwonkowski**, and L. Jiang (2005) Applications of Hilbert-Huang Transform to ocean-atmosphere remote sensing research. In: *Hilbert-Huang Transforms in Engineering*, Huang, N. and Attouh-Okine, N.O., Eds., Marcel Dekker, pp. 59-82.

**Publications Submitted or In Preparation** (\* Denotes student author mentored by Dzwonkowski, + Denotes postdoc author mentored by Dzwonkowski)

- 5.) Rao \*, D., **B. Dzwonkowski**, S. Fournier and G. Lockridge (*In revision 2024*) Role of tropical cyclones and salinity stratification in the expansion of coastal marine heatwave. *Nature Communications Earth and Environment*
- 4.) Clemo, W. C., K. M. Dorgan, **B. Dzwonkowski** and D.J. Wallace (*In Revision 2024*) Impacts of repeated hurricane disturbance on shallow coastal sediment macrofaunal communities. *Ecology*.
- 3.) Liu+, Z., **B. Dzwonkowski**, J. Lehrter, and L. Lowe (*Submitted 2024*), Wind influences on stratification and mixing in a wide-microtidal estuary – Mobile Bay, Alabama *Estuarine, Coastal, and Shelf Science*.
- 2.) Nwankow, U., S. Howden, D. Nechaev, and B. Dzwonkowski (Prep 2024) Contributions of wind and Loop Current to the monthly-interannual variation of sea level gradient in the Mississippi Bight. *Frontiers in Marine Science*

- 1.) Carmichael, R.H., R.N. Crim, **B. Dzwonkowski**, K. Park, M.N.Taylor, and H.K. Patterson (In prep., 2014) The trophic importance of land-derived organic matter in a freshwater dominated northern Gulf of Mexico estuary, *Limnology and Oceanography*.

### **Conference Processings Papers (not peer-reviewed)**

- 1.) Clemo, W. C., Dorgan, K. M., Wallace, D. J., and **Dzwonkowski, B.** 2023. Effects of Hurricane Sally (2020) on sediment structure and infaunal communities in coastal Alabama. *The Proceedings of the Coastal Sediments 2023*. 1055-1068.

### **Technical Reports** (\* Denotes student author mentored by Dzwonkowski)

2. **Dzwonkowski, B.** and J. Coogan\* (Accepted 2019), Subproject: High frequency salinity intrusions in Fowl River, Mobile Bay, AL. Mobile Bay National Estuaries Program Fowl River Marsh Study 2018 Final Report.
1. **Dzwonkowski, B.**, K.C. Wong, and W. Ullman (2011) Subproject: Episodic shifts in sea level and velocity characteristics of a salt marsh tidal channel, Murder Kill Estuary, Delaware. Water, Salt, and Nutrient Balances in Estuarine Salt Marsh (Murderkill river Estuary, Kent County, DE) Report B; County Office

### **Data Sets Published** (\* Denotes student author mentored by Dzwonkowski)

35. Sutton, J., Dzwonkowski, B., Krause, J., Hernandez, F., & Graham, W. (2023). Nutrient flux and physical stability drive phytoplankton biomass variability along the Alabama shelf [Data set]. Dauphin Island Sea Lab. <https://doi.org/10.57778/MCG4-F330>
34. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic data from mooring from 2020-09-30 to 2020-12-09 (NCEI Accession 0243653). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/5za5-aw02>.
33. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) wave energy converter platform (WECP) buoy hydrographic data from 2020-07-31 to 2020-09-02 (NCEI Accession 0243687). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/h08h-xk81>.
32. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic mooring data from 2020-07-17 to 2020-09-30 (NCEI Accession 0243684). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/84ay-val9>.

31. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic data from mooring from 2020-05-29 to 2020-07-17 (NCEI Accession 0243995). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/gaj9-tp70>.
30. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic data from mooring from 2020-02-28 to 2020-05-29 (NCEI Accession 0243657). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/yy2w-ad34>.
29. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic data from mooring from 2019-10-04 to 2020-02-28 (NCEI Accession 0243652). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/gnd8-5h49>.
28. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic data from mooring from 2019-08-16 to 2019-10-07 (NCEI Accession 0244000). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/4qqm-3332>.
27. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic data from mooring from 2019-07-01 to 2019-08-16 (NCEI Accession 0243655). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/q1tz-3b62>.
26. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) hydrographic data from mooring from 2019-05-16 to 2019-07-01 (NCEI Accession 0244008). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/a4vk-ts66>.
25. Dzwonkowski, Brian; Lockridge, Grant (2021). Fisheries Oceanography in Coastal Alabama (FOCAL) acoustic doppler wave and current profiler data from 2020-08-05 to 2021-06-03 (NCEI Accession 0241013). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://doi.org/10.25921/92x0-fy55>. Accessed [date].
24. Dzwonkowski, B. and G. Lockridge (2020). Fisheries Oceanography in Coastal Alabama (FOCAL) acoustic doppler wave and current profiler data 2018-06-21 to 2019-05-15 (NCEI Accession 0211052). NOAA National Centers for Environmental Information. Dataset. <https://accession.nodc.noaa.gov/0211052>.
23. Dzwonkowski, B., J. Coogan, G. Lockridge, C. Larence, and J. Wilson (2019). 2019 Summer Hypoxia Survey of Alabama Shelf CTD Data (2019-06-04 to 2019-08-02) (NCEI Accession 0206155). NOAA National Centers for Environmental Information. Dataset. <https://www.ncei.noaa.gov/archive/accession/0206155>.

22. **Dzwonkowski, B.** and G. Lockridge (2019). CTD data collected from a Fisheries Oceanography in Coastal Alabama (FOCAL) transect on 2019-06-04 (NCEI Accession 0201339). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://accession.nodc.noaa.gov/0201339>.
21. **Dzwonkowski, B., J. Coogan** (2019). MBNEP Fowl River Marsh Study at DISL (2018-05-01 to 2018-07-11), NOAA National Centers for Environmental Information. <http://accession.nodc.noaa.gov/0202224>
20. Coogan, J., **B. Dzwonkowski**, K. Park, and G. Lockridge (2019). West End CP Mooring thermistor, CTD, and ADCP Data near Mobile Bay, Alabama from 2004-10-20 to 2018-12-12. NOAA National Centers for Environmental Information. <https://data.nodc.noaa.gov/cgi-bin/iso?id=gov.noaa.nodc:0203749>
19. **Dzwonkowski, B., M. Tzeng** and G. Lockridge. (2019) Dataset for: Effects of Coastal Upwelling and Downwelling on Hydrographic Variability and Dissolved Oxygen in Mobile Bay. Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI). doi: 10.7266/n7-s40s-3785
18. Coogan\*, J. and **B. Dzwonkowski** (2019). Salinity, dissolved oxygen, water temperature, and pressure data collected from moored CTDs in Mobile Bay from 2016-07-12 to 2016-08-02 (NCEI Accession 0188979). NOAA National Centers for Environmental Information. Dataset. <https://accession.nodc.noaa.gov/0188979>.
17. Coogan\*, J. and **B. Dzwonkowski** (2018). Water temperature, salinity, and dissolved oxygen from CTD taken from small boat Pelagia in the Mobile Bay from 2016-07-14 to 2016-07-30 (NCEI Accession 0176497). Version 1.1. NOAA National Centers for Environmental Information. Dataset. <https://data.nodc.noaa.gov/cgi-bin/iso?id=gov.noaa.nodc:0176497>
16. **Dzwonkowski, B.** (2018). ADCP transect across the Mobile Bay plume on the Alabama inner shelf, March 1, 2011. Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi:10.7266/N7f769J1
15. **Dzwonkowski, B.** (2018). Acoustic Current Doppler Profiler mooring and velocity current structure data, Alabama inner shelf, Feb 10 – June 09, 2011. Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi:10.7266/N7HQ3WX9
14. **Dzwonkowski, B., K. Park** and M. Tzeng (2017) Fisheries Oceanography in Coastal Alabama (FOCAL) Velocity data from mooring, May-September 2010, Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi:10.7266/N72Z140Q

13. **Dzwonkowski, B.** G. Lockridge and J. Book. (2017) Fisheries Oceanography in Coastal Alabama (FOCAL) Mooring Dissolved Oxygen Data (Summer 2016) . Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi: 10.7266/N7QV3JXD
12. Dykstra, S., **B. Dzwonkowski**, G. Lockridge and S. O'Brien (2017) Drifter Releases in the Ebb Tidal Plume of Main Pass, Mobile Bay, Alabama. Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), DOI: 10.7266/N7TX3CFP
11. **Dzwonkowski, B.**, S. Dykstra\*, G. Lockridge and S. O'Brien (2017) CTD profiles collected during Fall survey (Sep 20 - Oct 29 2015), Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi: 10.7266/N7ZP446V
10. **Dzwonkowski, B.**, S. Dykstra\*, G. Lockridge and S. O'Brien (2017) Fisheries Oceanography in Coastal Alabama (FOCAL) Mooring DATA (Fall 2015), Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi: 10.7266/N73F4MQ6
9. **Dzwonkowski, B.**, S. Dykstra\*, G. Lockridge, and S. O'Brien (2017) CTD profiles collected during Spring survey, Apr 3-19 2016 Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI) doi: 10.7266/N7D50KCT, doi: 10.7266/N7SQ8XS9, doi: 10.7266/N75X279Z, doi: 10.7266/N7NZ862C
8. Wiggert, J.D., S. J. O'Brien, S. Dykstra\*, **B. Dzwonkowski**, D. J. Wallace and G. Lockridge. 2017. Total Suspended Solids in situ data, northern Gulf of Mexico, Mobile Bay river plume, March-April 2016. Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI). doi: 10.7266/N74Q7S2Z
7. Wiggert, J.D., S. J. O'Brien, S. Dykstra\*, **B. Dzwonkowski**, D. J. Wallace and G. Lockridge. (2017) LISST-100X (type B) grain size distribution, sediment distribution, Mobile Bay river plume, March-April 2016 . Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi: 10.7266/N7D798F3
6. Wiggert, J.D., S. J. O'Brien, S. Dykstra\*, **B. Dzwonkowski**, D. J. Wallace and G. Lockridge. (2017) LISST-100X (type B) grain size distribution, northern Gulf of Mexico, Mobile Bay river plume, October 2015 . Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi: 10.7266/N7J1016T



5. Wiggert, J.D., S. J. O'Brien, S. Dykstra\*, **B. Dzwonkowski**, D. J. Wallace and G. Lockridge. (2017) Total Suspended Solids in situ data, northern Gulf of Mexico, Mobile Bay river plume, October 2015 Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi: 10.7266/N78G8HRT
4. **Dzwonkowski, B.**, K. Park and M. Tzeng (2016) Fisheries Oceanography in Coastal Alabama (FOCAL) Mooring Data (SPRING 2011), Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi:10.7266/N77S7KTZ
3. **Dzwonkowski, B.**, G. Lockridge and S. Dykstra\* (2016). Drifter data at Main Pass, Mobile Bay Release 1 (2015/09/04). Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Gulf of Mexico Research Initiative (GoMRI), doi:10.7266/N7ZW1HW9
2. Tzeng, M.W., **B. Dzwonkowski** and K. Park. (2015a). Data Processing for a Small-Scale Long-Term Coastal Ocean Observing System Near Mobile Bay, Alabama: A Geoscience Papers of the Future (GPF) Software Set. Zendo, doi: 10.5281/zenodo.32741.
1. Tzeng, M.W., **B. Dzwonkowski** and K. Park. (2015b). Data Processing for a Small-Scale Long-Term Coastal Ocean Observing System Near Mobile Bay, Alabama: A Geoscience Papers of the Future (GPF) Workflow Diagram. Dauphin Island Sea Lab: Dzwonkowski Lab. Zenodo, doi: 10.5281/zenodo.34435.

### **Grants Awarded (Total:17,286,487; Dzwonkowski Portion: \$4,530,510)**

31. NOAA National Ocean Service, U.S. Integrated Ocean Observing System (IOOS), Gulf of Mexico Coastal Ocean Observing System Regional Association, "Expanding the availability of real-time wave data to support rip current prediction in the Mississippi Bight" **B. Dzwonkowski (PI)**, \$269,930 (10/01/2024-09/30/2029)
30. U.S. EPA, Gulf of Mexico Division, "Tracking wastewater for health and resilience in Alabama", B. Kiel-Reese (PI), S. Chadhain, R. Carmichael, **B. Dzwonkowski**, Z. Liu, (02/01/2025-01/31/2030) 5,865,797 (Dzwonkowski portion: ~\$441,686)
29. NOAA National Ocean Service, U.S. Integrated Ocean Observing System (IOOS), Gulf of Mexico Coastal Ocean Observing System Regional Association, "Coastal monitoring from Alabama's Real-Time Coastal Observing System (ARCOS)" (07/01/2024-06/30/2026) **B. Dzwonkowski (PI)**, Supplement \$81,000
28. NOAA, Mississippi Alabama Sea Grant Consortium "Infrastructure integrity assessment of floating cage oyster farms in the northern Gulf of Mexico"; (02/01/2024-01/30/2026) S. Wu (PI), Z. Liu, H. Chen, and **B. Dzwonkowski** \$197,119 (Dzwonkowski Portion \$28,607)

27. NOAA RESTORE Act, State of Alabama, “Water Quality monitoring in coastal Alabama”, (9/01/2023-8/31/2026) John Lehrter (PI), A. Robertson, **B. Dzwonkowski**, and M. Partyka, \$3,040,075 (Dzwonkowski portion \$551,408).
26. NASA Transform to Open Science (TOPS) program, “Building a framework for Science Core Carpentry from a Marine Sciences Lab”, (05/01/2023-04/30/2025) L.Lowe (PI), **B. Dzwonkowski**, and John Lehrter, \$209,446 (USA Portion)
25. NOAA National Ocean Service, U.S. Integrated Ocean Observing System (IOOS), Gulf of Mexico Coastal Ocean Observing System Regional Association, “Real-Time Water Current Velocity and Wave Data for Alabama’s Real-Time Coastal Observing System (ARCOS)” (01/01/2023-12/31/2024) **B. Dzwonkowski (PI)** and Pat David, \$143,790
24. NOAA National Ocean Service, U.S. Integrated Ocean Observing System (IOOS), Gulf of Mexico Coastal Ocean Observing System Regional Association, “Storm Supplemental Funds for Reconstruction and Repairs to Alabama’s Real-Time Coastal Observing System (ARCOS)” (09/01/2022-08/30/2024) **B. Dzwonkowski (PI)**, \$421,447
23. Alabama Center of Excellence, “Using shelf monitoring to assess multi-stressor impacts on dissolved oxygen dynamics and hypoxia in a changing coastal climate”, (07/01/2021-06/30/2024), B. Dzwonkowski (PI), J. Lehrter, and D. Tian, \$449,753.
22. Alabama Center of Excellence, “Monitoring and predicting responses of a sentinel marine megafauna to climate change and implications for the tropicalization of the northern Gulf of Mexico”, (07/01/2021-06/30/2024), R. Carmichael, C. Cloyed, N. Phillips, J. Powell, M. Ross, and B. Dzwonkowski (co-PI), \$496,526 (Dzwonkowski portion \$23,000).
21. NOAA National Ocean Service, U.S. Integrated Ocean Observing System (IOOS), Gulf of Mexico Coastal Ocean Observing System Regional Association, “Coastal monitoring from Alabama’s Real-Time Coastal Observing System (ARCOS)” (07/01/2021-06/30/2026) **B. Dzwonkowski (PI)**, \$120,000
20. NASA, Research Opportunities in Space and Earth Sciences (ROSES), Physical Oceanography Program, “An investigation of mechanisms that drive compounding connections between tropical cyclones and marine heatwaves in the coastal ocean” (02/01/2021-01/31/2025; **B. Dzwonkowski (PI)** and S. Fournier, \$420,658.
19. NOAA, NOAA HAB/Hypoxia Program, “Cyanotoxin Impacts in the Northern Gulf of Mexico following freshwater release into coastal zones from the Bonnet Carré Spillway and Hurricane Events.” (08/01/2019) A. Robertson (PI), **B. Dzwonkowski**, A. Wilson, T. Davis, A. Deming, and K. Broussard, \$11,640.
18. NOAA, Restore Science Program, “Building resilience for oysters, blue crabs, and spotted sea trout to environmental trends and variability in the Gulf of Mexico” (09/01/2019-

- 08/31/2024); J. Lehrter (PI), R. Baker, **B. Dzwonkowski**, L. Kalin, L. Lowe, D. Petrolia, S. Powers, Di Tian, and S. Yun, \$2,887,250 (Dzwonkowski portion \$234,838).
17. NOAA, Mississippi-Alabama Sea Grant Consortium, Program Development Fund, Alabama, “Impacts of compounding freshwater events on shelf dissolved oxygen: Bonnet Carré Spillway opening” (06/15/2019-07/15/2020); **Dzwonkowski (PI)** and J.Coogan \$10,000.
  16. University of South Alabama, Center for Environmental Resiliency, “Determining primary processes controlling oxygen dynamics in the Mobile Bay Estuary”, (04/01/2019-03/31/2021) J. Lehrter (co-PI) and **B. Dzwonkowski (co-PI)**, \$100,000 (Dzwonkowski portion \$50,000).
  15. University of South Alabama, Research and Scholarship Development Grant Program, “Development of an innovative turbulence mooring to advance coupled physical-biogeochemical processes”, **Dzwonkowski (PI)** and Bret Webb (05/15/2019-05/14/2020) \$24,998.
  14. NOAA, Gulf of Mexico Regional Collaboration Team, “Improving historical data access for coastal application” (09/01/2018-06/30/2020) – **B. Dzwonkowski (PI)** and R. Collini, \$12,517.
  13. Gulf of Mexico Research Initiative, RPF-IV extension, “CONsortium for oil spill exposure pathways in COastal River-Dominated Ecosystems (CONCORDE)” Responsible Conclusion” (01/01/2018-12/31/2019), Lead PI: Jerry Wiggert (PI) at USM **B. Dzwonkowski (Co-PI)** (Dzwonkowski portion \$50,000).
  12. National Fish and Wildlife Foundation Gulf Environmental Benefit Fund, “Fowl River Watershed Restoration Study” (01/01/2018-03/31/2019), R. Swann, J. Cebrian, R. Carmichael, M. Cook, A. Beebe, B. Dzwonkowski, J. Lehrter, S. Thibaut, B. Webb \$303,582; (Dzwonkowski portion \$30,000)
  11. NOAA, Restore Act Science Program, “Expansion of www.mymobilebay.com for Coastal Alabama Resource Management” (6/1/2017-5/30/2020), **B. Dzwonkowski (PI)** and R. Collini \$720,000 (Dzwonkowski portion \$514,877)  
[https://restoreactscienceprogram.noaa.gov/funded-projects/mobile-bay-tool?utm\\_medium=email&utm\\_source=GovDelivery](https://restoreactscienceprogram.noaa.gov/funded-projects/mobile-bay-tool?utm_medium=email&utm_source=GovDelivery)
  10. National Aeronautics and Space Administration, Research Opportunities in Space and Earth Sciences (ROSES), “SUSMAP: SMAP observations to trace the lifecycle of hydrologic extreme events” (09/27/2016-09/26/2019) J.T. Reager (PI), C. David, J. Vazquez, and **B. Dzwonkowski (USA co-I)**, \$444,990 (\$44,813 Dzwonkowski portion),
  9. University of South Alabama, Center for Environmental Resiliency, “Characterization of hypoxia vulnerabilities in the Mobile Bay Estuary”, (11/01/2015-10/31/2016) **B. Dzwonkowski (PI)** and K. Dorgan, \$19,959.

8. NOAA National Ocean Service, U.S. Integrated Ocean Observing System (IOOS), Gulf of Mexico Coastal Ocean Observing System Regional Association, “Maintaining and Enhancing the Alabama Real-Time Coastal Observing System” (04/01/2016-03/31/2020) Renee Collini (co-PI), Lei Hu (co-PI), and **B. Dzwonkowski**, \$150,000 (Dzwonkowski portion \$20,000)
7. University of South Alabama, Research and Scholarship Development Grant Program, “Characterization of submarine groundwater discharge to Mobile Bay” (01/01/2015-12/31/2015), Alex Beebe (PI), **Brian Dzwonkowski** (No cost collaboration), and David Allison, \$25,000
6. Gulf of Mexico Research Initiative, RPF-IV, “CONsortium for oil spill exposure pathways in COastal River-Dominated Ecosystems (CONCORDE)” (01/01/2015-12/31/2017), Lead PI: Monty Graham (PI) at USM **B. Dzwonkowski (Co-PI)**, \$217,308 (Dzwonkowski portion \$172,308)
5. University of Maine, Summer Faculty Research Competition, “Developing a regional climate change index for Maine’s Coastal Ocean” (06/01/2013-12/31/2013), **B. Dzwonkowski (PI)**, \$7,500.
4. Gulf of Mexico Research Initiative, Marine Environmental Sciences Consortium, “Investigation of the three dimensional Eulerian flow field and resulting Lagrangian transport pathways on the Alabama shelf” (12/01/2010-12/31/2011), **B. Dzwonkowski (PI)**, K. Park, B.M. Webb, and A. Valle-Levinson, \$177,975.
3. Gulf of Mexico Research Initiative, Marine Environmental Sciences Consortium, “Modeling of circulation and physical transport for the Alabama coastal waters to assess transport and distribution of oil-derived substances” (12/01/2010-12/31/2011) K. Park (PI), **B. Dzwonkowski**, B.M. Webb, and Q.J. Chen, \$129,246.
2. Gulf of Mexico Research Initiative, Marine Environmental Sciences Consortium, “Identifying transport pathways and quantifying exchange in Alabama’s coastal waters: from the shelf to the Delta” (12/01/2010-12/31/2011), B.M. Webb (PI), K. Park, **B. Dzwonkowski**, and A. Valle-Levinson, \$199,223.
1. Gulf of Mexico Research Initiative, Northern Gulf Institute, “Impacts of the Deepwater Horizon oil spill on ecosystem structure and function in Alabama’s marine waters - Task 7: Along-estuary transport of oil-derived substances in surface and subsurface waters of the ship channel of the Mobile Bay Estuary” (07/15/2010-12/31/2010) K. Park (PI), B.M. Webb, and **B. Dzwonkowski**, \$79,758

### **Grant Proposals In Preparation or Pending**

NOAA National Ocean Service, U.S. Integrated Ocean Observing System (IOOS), Gulf of Mexico Coastal Ocean Observing System Regional Association, “Glider-based monitoring of heat content in the Mississippi Bight during hurricane season” **B. Dzwonkowski (PI)**, \$47,000 (Pending 02/01/2025-01/31/2028)

NOAA RESTORE Science Program, Extended LOI, “Modeling primary production, utilizing long-term water quality, as a tool for management within nearshore coastal environments in the Northern Gulf of Mexico” DeBois, J., K. Hoadley, **B. Dzwonkowski**, Z. Liu, S. Phipps and A. Gray. \$2,493,178 (USA portion: 1,135,00) (Pending 08/22/2024)

### **Grant Proposals Submitted but NOT funded**

US EPA, Gulf of Mexico Division, “Gulf-THRIVE: Transforming Habitat, Revitalizing Communities, and Improving Water Quality for a Healthy and Resilient Gulf”, S. Wu (PI), R. Carmichael, **B. Dzwonkowski**, J. Lehrter, Z. Liu, S. Patch, Temple, Venkiteshwaran, B. Webb, W. Wu (Jul 2024 Not Funded) ~6,000,000 (Dzwonkowski portion: \$480,000)

NOAA, Climate Program Office, “Gulf Climate Action Network (GulfCAN)”, S. Wu (PI), S. Kimball, J. Lehrter, M.-W. Kang, Y. Johnson, B. Dzwonkowski, S. Patch, R. Hanks, J. Cleary, Z. Liu, F. Terbeck, D. Smyl, F. Hao, T. Sempier, \$5,500,00 (Dzwonkowski Portion: ~300,000) (Jan 2024, Not Funded)

NOAA National Marine Fisheries Service (NMFS) - HCPO, “Designing Nature-Based Solutions to Build Habitat and Resilience in an Industrial Setting Pascagoula MS”, J. Haner (PI), A. Sharky, K. Heck, E. Sparks, **B. Dzwonkowski**, S. Scyphers et al., \$1,400,000 (USA Portion; Dzwonkowski Portion: \$334,609) (Nov 2023, Not Funded)

Cooperative Institute for Research to Operations in Hydrology (CIROH), “Assimilating Multi-sensor Satellite Observations into Hydrodynamics Modeling to Advance Coastal Water Monitoring and Prediction Capabilities”, H. Liu, K. Hoadley, S. Bao, **B. Dzwonkowski**, and S. Jones , White Paper Proposal (Dec 2023, Not Funded)

Cooperative Institute for Research to Operations in Hydrology (CIROH), “Expanding monitoring in the Mobile River system to support the science of tidal rivers and the associated ecosystems”, P. David, J. Valentine, J. Lehrter, **B. Dzwonkowski**, and J. Goff, White Paper Proposal (Dec 2023, Not Funded)

USDoE, Advanced Research Project Agency – Energy, SEACO2 program, LOI, “Benthic Flux Mapping System” Jeff Coogan (PI) - \$600,000 (USA portion \$50,000) (April 2023, Not Funded)

USGS, Water Resources Research Institute Program , “The role of riparian vegetation on dynamics in Mobile-Tensaw River Delta-Mobile Bay system”; **B. Dzwonkowski (PI)**, Z. Liu, and J. Lehrter, \$23,919 (Feb 2023, Not Funded)

NOAA, Mississippi Alabama Sea Grant Consortium, LOI, “Investigating the impacts of shoal-ship channel interactions on the salinity dynamics of the Mobile Bay-Mobile Tensaw Delta system, a shallow, highly stratified estuary.”; **B. Dzwonkowski (PI)** and Z. Liu \$180,484 (Feb 2023, Not Funded)

NOAA Coastal Hypoxia Research Program, “Assessing hypoxia risks to living resources in a shelf system undergoing multiple anthropogenic modifications”, **B. Dzwonkowski (PI)**, J. Lehrter, S. Power, Z. Liu, and L. Lowe, \$1,600,000 (Jan 2023, Not Funded)

NOAA National Marine Fisheries Service (NMFS) - HCPO, “Designing Nature-Based Solutions to Build Habitat and Resilience in an Industrial Setting Pascagoula MS”, J. Haner (PI), A. Sharky, K. Heck, E. Sparks, **B. Dzwonkowski**, S. Scyphers et al., \$5,500,000 (USA Dzwonkowski Portion: \$260,619) (Sep 2022, Not Funded)

Cooperative Institute for Research to Operations in Hydrology (CIROH), “Expanding monitoring across a fluvial-marine transition to support the science of tidal rivers and the associated ecosystems”, P. David, J. Valentine, J. Lehrter, **B. Dzwonkowski**, and J. Goff, White Paper Proposal (Dec 2022, Not Funded)

NASA ROSES Program – ‘Developing a regional coupled sensing-modeling framework for informing adaptation to future coastal hazards along the northern Gulf of Mexico’, Y. Zhang, K. Park, T. Dellapena, F. Meyer, **B. Dzwonkowski**, and J. Du, \$150,000 (USA budget), (June 2022, Not Funded)

NSF Physical Oceanography Program, “Collaborative Research: Near-Inertial Motions in a River Dominated Shelf System near the Critical Latitude”, M. Busijman and **B. Dzwonkowski (USA PI)**, \$203,000 (USA portion) (Dec 2021, Not Funded).

NSF Coastlines and People Program, “Focused Hub: A research hub alliance for resilient and sustainable coastal communities and ecosystems in an era of climate change” (05/01/2021-04/30/2026) H. Mahmoud (PI), Y. Guo, B. Ellingwood, S. Cohen, N. Dimova, **B. Dzwonkowski (co-PI)**, L. Smee, K. Mach, T. Miller-Way, \$485,000 (Dzwonkowski Portion) (Dec 2021, Not Funded)

NSF Convergence Accelerator Program, “CUBEnet: An Accelerated Convergence Framework for Ocean Research and Multidisciplinary Data Availability”, J. McKenna(PI), et al. **B. Dzwonkowski**, J. Lehrter. (USA Portion: \$33,775) (June 2021, Pending)

Alabama Center of Excellence, “Assessing the impact of physical stressors on the availability of primary production to the coastal Alabama aquatic food web”, (07/01/2021-06/30/2024), S. Randi, J. Krause, and **B. Dzwonkowski (co-PI)**, \$496,985. (July 2021, Not Funded)

NOAA RESTORE Program, “Design of a Large-Scale Oyster Reef Restoration Project in Consideration of Vertically Varying Salinity, Dissolved Oxygen, and Currents”, (09/01/2021-08/31/2021), J. Lehrter, B. Dzwonkowski, Z. Liu, J. Mareska, and K. Anson, \$125,000. (July 2021, Not Funded)

NSF Coastlines and People Program, “Focused Hub: A research hub alliance for resilient and sustainable coastal communities and ecosystems in an era of climate change” (05/01/2021-04/30/2026) H. Mahmoud (PI), Y. Guo, B. Ellingwood, S. Cohen, N. Dimova, **B. Dzwonkowski (co-PI)**, K. Dorgan, L. Smee, K. Mach, T. Miller-Way, \$485,000 (Dzwonkowski Portion) (July 2021, Not Funded)

NSF Physical Oceanography Program, “Connecting Intraseasonal Thermal Events to Interannual Variability in the Coastal Ocean Climate during the Fall Transition”, (10/01/2021-09/30/2024), B. Dzwonkowski (PI), \$299,695. (Not Funded, June 2021)

NSF Physical Oceanography Program, “Collaborative Research: Understanding hypoxia and biophysical interactions forced by near-inertial events through the dissolved oxygen budget on a stratified inner shelf”, (10/01/2021-09/30/2024), J. Coogan, M. Long, B. Dzwonkowski (co-PI), \$369,000. (Not Funded, June 2021)

National Academy of Sciences, Gulf Research Program, “Seamless Gulf of Mexico forecasts: Circulation, hazards and transports from subseasonal to seasonal scales”, LOI (01/01/2022-12/31/2026), K. Park, J. Zhang, H. Moradkhani, P. Orton, A. Bracco, B. Dzwonkowski, S. Hemmerling, A. Ross, A. Azevedo, W. Shao, S. Pe’eri, ~\$450,00, USA portion. (Not Funded, May 2021).

NOAA Marine Debris Program, “Hydrological versus Biogeochemical Controls of Transport, Pathway, and Fate of Marine Debris in Mobile Bay, Alabama”, LOI, (09/01/2021-08/31/2024), Y. Lu, N. Dimova, and B. Dzwonkowski (co-PI), \$375,000. (Mar 2020, Not Funded)

GOMESA Portal, “Oyster Restoration in Middle Mobile Bay: Designing, Building, and Planning for the Future” J. Lehrter(PI), J. Mareska, J Hammon, **B. Dzwonkowski**, L. Smee and Z. Liu \$1,563,411 (Jul 2019, Not Funded)

NASA, Research Opportunities in Space and Earth Sciences (ROSES), Soil Moisture Active Passive Mission Science Team, “A global water cycle change indicator at the land-ocean interface: coupled analysis of SMAP soil moisture and coastal sea surface salinity” (11/01/2019-10/31/2022; S. Fournier (PI), J.T. Reager, C. David, J. Vazquez, and **B. Dzwonkowski** (USA co-I), \$444,990 (Jun 2019, Not Funded)

Alabama Restore Act - Alabama Restoration Project, “Assessment and Prediction of Hypoxia in Mobile Bay for Water Quality and Living Resources Management and Restoration”, J. Mareska(PI), J. Lehrter, and **B. Dzwonkowski** \$5,448,078 (Jun 2019, Pending)

National Academy of Sciences, Gulf Research Program, Healthy Ecosystems LOI, “Cloudy with a chance of trophic collapse: Turbidity alters estuarine food webs” (09/01/2019-8/31/2022); L. Smee(PI), G. Rieucan, B. Dzwonkowski, ~\$800,000 (May 2019, Not Funded)

National Academy of Sciences, Gulf Research Program, Healthy Ecosystems LOI, “Quantifying oceanic impacts of coupled physical-biogeochemical processes on estuarine systems in the Anthropocene” (09/01/2019-8/31/2022); **B. Dzwonkowski (PI)**, J. Lehrter, and R. Baker, ~\$800,000 (May 2019, Not Funded)

National Science Foundation, Physical Oceanography Program, “RAPID: Collaborative Research: Determining compound impacts of regional flooding in conjunction with a large-scale freshwater diversion: Bonnet Carré Spillway opening”, LOI, Brian **Dzwonkowski (PI)**, J. Coogan, M.K. Cambazoglu, and J. Wiggert (May 2018, Not Funded)

Alford P. Sloan Foundation, Energy and Environment Program, “Interdisciplinary high frequency estuarine system monitoring for coastal challenges in the Anthropocene”, Extended Letter of Inquiry, (01/01/2020-12/31/2023); **B. Dzwonkowski (PI)**, J. Lehrter, and R. Collini, \$1,309,677 (Apr 2019, Not Funded)

NSF, Physical Oceanography Program, “Collaborative Research: Near-inertial ocean responses to diurnal forcing over a shallow shelf at the critical latitude (NORDCLASS)” (07/01/2019-6/30/2023); **B. Dzwonkowski (PI)**, B. Webb, D. Bernstein, Jerry Wiggert, J. Moum, and S. Warner, \$2,465,330 (\$667,444 USA Portion) (Feb 2019, Not Funded)

NOAA, Mississippi Alabama Sea Grant Consortium, “Oceanic influence on estuarine systems for improved aquaculture development, restoration management, and coastal resiliency in MS/AL coastal waters”; **B. Dzwonkowski (PI)**, \$195,484 (Feb 2019, Not Funded)

Alabama Department of Conservation and Natural Resources, Alabama Gulf of Mexico Energy Security Act Program (GOMESA), “Development of infrastructure for improving resiliency to marine hazards”, J. Krause (PI) and **B. Dzwonkowski** \$1,210,146 (Jan 2019, Not Funded)

Alabama Department of Conservation and Natural Resources, Alabama Gulf of Mexico Energy Security Act Program (GOMESA), “Holistic oyster monitoring system (HOMS) to inform oyster fisheries, restoration and aquaculture decisions”, B. Walton (PI) and **B. Dzwonkowski** \$1,062,699 (Jan 2019, Not Funded)

University of South Alabama, Arts and Sciences Summer Professional Development Award (SPDA), “Characterizing contaminant transport and dispersion in the estuaries of Mississippi and Alabama”, **B. Dzwonkowski (PI)**, \$4,504 (Jan 2019, Not Funded)



Mississippi Department of Marine Resources, Mississippi Tidelands Trust Fund Program, “Evaluating flow contaminants in a Mississippi estuary”, E. Sparks (PI), K. Dillion, and **B. Dzwonkowski**, \$129,997 (Jun 2018, Not Funded)

NOAA, National Oceanography Partnership Program, “Biodiversity in Mobile Bay (Bio-MoB): Influence of Oceanographic Processes on Nearshore Biodiversity” (09/01/2018-08/31/2021); L. Smee (PI), **B. Dzwonkowski**, and Guillaume Rieucan \$1,010,445 (Dec 2018, Not Funded)

NOAA, MERHAB Program, “Coupling new high resolution technology with monitoring strategies to improve event response for combined HABS in river-influenced estuaries and coastal zones”, LOI, **B. Dzwonkowski (PI)** and A. Robertson, ~\$1,500,000 (Oct 2018, Not Funded)

National Science Foundation, Physical Oceanography Program, “RAPID: Determining shifts in hydrography and circulation due to an El Nino event on a river-dominated shelf, Mississippi Bight in the Northern Gulf of Mexico”, LOI, **B. Dzwonkowski**, (Oct 2018, Not Funded)

NOAA, National Marine Fisheries Service, Saltonstall-Kennedy Competition, “Reducing Impacts of low dissolved oxygen on shrimping efforts”, Extended LOI, **B. Dzwonkowski (PI)**, M. Drymon, R. Collini, S. Ashby, and R. Bradley, ~\$280,000 (Jul 2018, Not Funded)

NOAA, Restore Science Program, “Quantifying the ecological and economic impacts of hypoxia east of the Mississippi River”, Extended LOI, S. Ashby (PI), S. Yun, **B. Dzwonkowski**, S. Howden, S. Milroy, and R. Bradley, ~\$1,000,000 (Jul 2018, Not Funded)

National Academy of Sciences, Gulf Research Program, Early-Career Research Fellowship, (09/01/2018-8/31/2020); **B. Dzwonkowski**, \$76,000 (Feb 2018, Not Funded)

NOAA , NOS NCCOS Ocean Acidification Program, “Identification and Application of Coastal Acidification Thresholds for Eastern Oyster in Mobile Bay, Alabama” (09/01/2018-08/31/2021); J. Lehrter (PI), J. Cebrian, E. Cox, **B. Dzwonkowski**, L. Kalin, Y. Zhang, and L. Love, \$972,843 (Feb 2018, Not Funded)

NOAA, NOS NCCOS Coastal Hypoxia Research Program, “Quantify the ecological and economic impacts east of the Mississippi River” (09/01/2018-08/31/2021); S. Ashby (PI), **B. Dzwonkowski**, R. Collini, S. Yun, and S. Howden, \$825,00 (Jan 2018, Not Funded)

NSF, FSML program, “Coupled high frequency biogeochemical and physical measurements in coastal river-influenced system” (07/15/2018-07/15/2019), **B. Dzwonkowski (PI)**, K. Dorgan, J. Krause, J. Lehrter, and A. Robertson, \$268,613 (Dec 2017, Not Funded)

University of South Alabama, Research and Scholarship Development Grant Program, “Development of an innovative turbulence mooring to advance coupled physical-biogeochemical processes in the northern Gulf of Mexico”, (05/01/2018-04/31/2019), B. **Dzwonkowski (PI)** and B. Webb; \$24,998 (Mar 2018, Not Funded)

Gulf of Mexico Alliance (GOMA), Gulf Star Program, “Understanding hypoxia and hypoxia monitoring in the Mississippi Bight”, J. Lopez (PI), S. Ashby, R. Collini, **B. Dzwonkowski**, and S. Howden, ~\$39,911 (USA portion \$4,676) (Sep 2017, Not Funded)

NOAA Mississippi Alabama Sea Grant Program, Research Program “Improving the return on investment for the oyster farming industry by identifying sources of pathogen indicators to inform management and reduce harvest limitations.”, R. Carmichael (PI), K. Calci and **B. Dzwonkowski**. ~\$129,466 (Feb 2016, Not Funded)

NSF Earthcube program, RCN for Oceanography, “EarthCube RCN: Earth-Centered Communication for Cyberinfrastructure for Oceanography (EC3O): Challenges of field data collection, management, and integration”; **B. Dzwonkowski (PI)** and M. Tzeng, ~\$278,260 (Mar 2017 Not Funded)

NSF, FSML program, “High frequency biogeochemical and physical measurements in coastal river-influenced system”, **B. Dzwonkowski (PI)**, K. Dorgan, J. Krause, J. Lehrter, and A. Robertson, \$210,059 (Dec 2016, Not Funded)

Gulf of Mexico Research Initiative, RPF-IV, “CONsortium for oil spill exposure pathways in COastal River-Dominated Ecosystems (CONCORDE II)” , Lead PI: Jerry Wiggert (PI) at USM, ... **B. Dzwonkowski** (Co-PI), ~\$225,000 (budget at USA) (Mar 2017, Not Funded)

Gulf of Mexico Research Initiative, RPF-IV, “Alabama Center for Environmental Resiliency (ACER II)”, Lead PI: Kelly Dorgan (PI) at DISL, ... **B. Dzwonkowski** (Co-PI), ~\$280,000 (budget at USA) (Mar 2017, Not Funded)

National Oceanic and Atmospheric Administration, Integrated Ocean Observing System, Observing Technologies Transition program, “Transitioning coupled biogeochemical and algal monitoring systems in the northern Gulf of Mexico to support HAB and hypoxia management ”, **B. Dzwonkowski (PI)**, A. Robertson, J. Lehrter, R. Collini, D. Anderson, B. Kirkpatrick, \$2,399,977 (Mar 2017, Not Funded)

National Academy of Sciences, Gulf Research Program, Early-Career Research Fellowship, **B. Dzwonkowski**, \$76,000 (Feb 2017, Not Funded)

NOAA, Restore Act Science Program, “Transport and biological fate of nutrient and trace metal contamination to a northern Gulf of Mexico estuary”, Kevin Dillion (PI), J. Caffrey, R. Carmichael, K. Cressman, **B. Dzwonkowski**, M. Posten, M. Woodrey, \$940,00 (Sep 2016, LOI Not Funded)

NOAA, Restore Act Science Program, “Impacts of land-use, hypoxia, and suspended sediment on estuarine fish biomass and food webs structure”, J. Lehrter (PI), J. Cebrian, **B. Dzwonkowski**, K. Park, W. Patterson, \$2,400,00 (Sep 2016, Not Funded)

NOAA, Restore Act Science Program, “Linking ecosystem health and resilience across the freshwater-marine gradient using chemical tracers and bioindicator species to develop ecological models of chronic stressors, habitat quality, and trophic dynamics”, A. Robertson (PI), M. Wilson, M. Waters, W. Patterson, **B. Dzwonkowski** and John Lehrter, \$2,500,000 (Sep 2016, LOI Not Funded)

NOAA Mississippi Alabama Sea Grant Program, Aquaculture Research Competition “Improving science based management and methods for mitigation of harmful algal bloom impacts of oyster aquaculture in Alabama and Mississippi”, A. Robertson(PI), **B. Dzwonkowski**, and W. Walton \$299,873 (May 2016, Not Funded)

National Academy of Sciences, Gulf Research Program, Early-Career Research Fellowship, **B. Dzwonkowski**, \$76,000 (Feb 2016, Not Funded)

National Academy of Sciences, Gulf Research Program, Synthesis Grants LOI, “Where will contaminant transport impact fishing grounds? Engaging fishing stakeholders in alerting and validation” L. Gramer (PI), **B. Dzwonkowski**, J. Hendee, and N. Thompson (Apr 2016, LOI Not Funded)

National Science Foundation, Long-Term Ecological Research Program, “Preliminary Proposal: LTER: Resiliency of a river-dominated coastal ocean system--the Mississippi Bight Ecosystem”, A.M. Shiller (PI), F. Hernandex, J. Kastler, R. Leaf, J. Wiggert, Just Cebrian, K. Dorgan, **B. Dzwonkowski**, J. Krause, and B. Mortazavi. (Feb 2016, Planning Letter Not Funded)

National Estuarine Research Reserve System Science Collaborative, LOI: “Phosphogypsum contamination in the Grand Bay National Estuarine Research Reserve: Data collection, with end user input, to aid mitigation of impacts to ecosystem health”, K. Cressman, J. Caffrey, R. H. Carmichael, K. Dillon, B. Dzwonkowski, M. Posten, and M. Woodrey, \$206,097 (USA Budget) (Mar 2016, Planning Letter Not Funded)

Alabama Restore Act - Alabama Restoration Project, “Maintaining and Expanding Information Infrastructure for Shipping and Boating Safety and Efficiency in Mobile Bay”, R. Collini (PI) and **B. Dzwonkowski** \$1,479,606 (Jan 2015, Not Funded)

National Fish and Wildlife Foundation, “Dauphin Island Restoration and Management Support System”, **B. Dzwonkowski**, R. Collini (Co-PIs) \$1,141,000 (Sep 2016, Not funded)

University of South Alabama, Arts and Sciences Summer Professional Development Award Summer 2016, “Characterizing contaminant transport and dispersion in the estuaries of Mississippi and Alabama”, **B. Dzwonkowski**, \$4,914 (Mar 2016, Not Funded)

National Science Foundation, Physical Oceanography Program, “Collaborative Research: Variability in Resuspension and Transport Pathways of Particulate Matter in the Mississippi Sound and its Barrier Island Passes”, J. Wiggert (PI), **B. Dzwonkowski**, D. Wallace, and S. Howden \$265,298 (budget at USA) (Dec 2016, Not Funded)

National Science Foundation, Physical Oceanography Program, “RAPID: Determining shifts in hydrography and circulation due to a potentially record breaking El Nino event on a river-dominated shelf, Mississippi Bight in the Northern Gulf of Mexico”, **B. Dzwonkowski**, (Oct 2016, LOI Not Funded)

National Aeronautics and Space Administration, Physical Oceanography Program, “RAPID: Determining shifts in hydrography and circulation due to a potentially record breaking El Nino event on a river-dominated shelf, Mississippi Bight in the Northern Gulf of Mexico”, **B. Dzwonkowski**, (Oct 2016, LOI Not Funded)

National Fish and Wildlife Foundation, Gulf Coast Conservation Grants Program, “Maintaining and utilizing real-time observations in Mobile Bay for conservation and resource management” R. Collini (PI) and B. Dzwonkowski (\$156,084, Nov 2015, Not Funded)

NOAA Mississippi Alabama Sea Grant, Program Development Proposal “Characterization contaminant dispersion of a surface plume in a shallow, micro-tidal estuarine system”, **B. Dzwonkowski (PI)**, \$9,944 (Jun 2015, Not Funded)

Gulf of Mexico Research Initiative, RPF-V, “CONsortium for oil spill exposure pathways in COastal River-Dominated Ecosystems Gulf Consortium for Cetacean Health and Abundance in Nearshore and Coastal Ecosystems (Gulf-CHANCE)” Lead PI Ruth Carmichael (DISL), **B. Dzwonkowski** (Participant), \$98,000 (budget at USA) (Mar 2015, Not Funded)

Gulf of Mexico Research Initiative, RPF-V, “Variability in resuspension and transport pathways of particulate matter in the Mississippi Sound and its Barrier Island Passes” Lead PI M. Buijisman (USM), **B. Dzwonkowski** (co-PI), ~\$564,000 (budget at USA) (Mar 2015, Not Funded)

Gulf of Mexico Research Initiative, RPF-V, “Oil transport and mixing onto shelf and coastal coastal ecosystems: An observation program to improve ocean monitoring and modeling on the margins of the U.S. Southern Atlantic and Gulf of Mexico” Lead PI L. Gramar (USF), **B. Dzwonkowski** (Participant), \$370,000 (budget at USA) (Mar 2015, Not Funded)

NOAA Mississippi Alabama Sea Grant Program, “Characterization of hypoxia vulnerabilities in the coastal waters of Alabama”, **B. Dzwonkowski (PI)**, \$151,000 (Feb 2015, LOI Not Funded)

Florida Centers of Excellence, Research Grants Program, “Portal for fisherman-validated satellite upwelling alerts using horizontal convection”, L. Gramer (PI), N. Thompson and **B. Dzwonkowski**, ~\$15,000 (budget at USA), (May 2015, LOI Not Funded)

National Academy of Sciences, Gulf Research Program, “Mapping cross-shelf mixing and transport in the eastern Gulf of Mexico”, L. J. Gramer (PI), N. Thompson, C. Hu, I. Kuffner, **B. Dzwonkowski**, L. McEachron, and B. Walker ~\$60,000 (budget at USA) (July 2015, LOI Not Funded)

National Academy of Sciences, Gulf Research Program, “Characterization of hypoxia vulnerabilities in the shallow, stratified estuaries of the Mississippi Bight”, **B. Dzwonkowski (PI)**, K. Park, and R. Collini, ~\$550,000 (July 2015, LOI Not Funded)

Gulf of Mexico Coastal Ocean Observing System Regional Association, “Integration of and regional Enhancements to the Gulf of Mexico Coastal Ocean Observing System: enhancement of spatial coverage of the CenGOOS mooring network” **B. Dzwonkowski (PI)** and R. Collini, \$950,000 (Jun 2015, LOI Not Funded)

Restore Act - Alabama Restoration Project, “Infrastructure advancement for Marine Observations in Coastal Alabama (IMOCA)”, **B. Dzwonkowski (PI)**, \$2,652,901 (Sep 2014, Not Funded)

Restore Act - Alabama Restoration Project, “Mobile Bay High Frequency Radar Network”, **B. Dzwonkowski (PI)**, \$2,703,298 (Sep 2014, Not Funded)

Restore Act - Alabama Restoration Project, “Comprehensive Coastal Monitoring and Community Engagement Network (COCO)”, R. Collini (PI), R. Swann, **B. Dzwonkowski**, S. Kimball \$7,926,889 (Sep 2014, Not Funded)

Restore Act - Alabama Restoration Project, “Alabama Harmful Algal Bloom (ALHAB) Program Initiative”, A. Robertson (PI), K. Gauldin, C. Nix, C. Dorsey, **B. Dzwonkowski**, A. Wilson, J. Valentine, J. Krause \$7,075,937 (Sep 2014, Not Funded)

National Science Foundation, Physical Oceanography Program, “Collaborative Research: Characterizing turbulence, stratification, flow structure in a highly stratified, micro-tidal estuarine system”, **B. Dzwonkowski (PI)** and K. Park, \$545,626 (Feb 2014, Not Funded)

National Science Foundation, Physical Oceanography Program, “Collaborative Research: Characterizing variability in flow structure and stratification of a low-discharge, meso-tidal estuarine system”, **B. Dzwonkowski (PI)** and N. Pettigrew, \$189,626 (Aug 2014, Not Funded)

National Aeronautics and Space Administration, Research Opportunities in Space and Earth Sciences (ROSES), ‘Determining the influence of circulation and discharge on

- temperature variability in a river-influenced shelf system’, **B. Dzwonkowski (PI)**, \$284,646 (Jun 2014, Not Funded).
- Gulf of Mexico Research Initiative, RPF-IV, CONsortium for oil spill exposure pathways in COastal River-Dominated Ecosystems Gulf Consortium for Cetacean Health and Abundance in Nearshore and Coastal Ecosystems (Gulf-CHANCE), R. Carmicheal (PI), Co-PI, \$206,900 (Jun 2014, Not Funded)
- National Science Foundation, Physical Oceanography Program, “Circulation and dynamics of multi-channel, weakly stratified estuarine systems”, **B. Dzwonkowski (PI)**, Neal Pettigrew, and Huijie Xue, \$671,738 (Feb 2014, Not Funded)
- Gulf of Mexico Research Initiative, RPF-IV, Hydrocarbon Transport in Estuaries Consortium (HyTEC), Arnoldo Valle-Levinson (PI), Participant (Pre-proposal Jan 2014, Not Funded)
- National Oceanic and Atmospheric Administration, Marine Sensor and Other Advanced Observing Technologies Transition program, “Operational Buoy Mounted Multi-static High Frequency Radar Network Augmentation”, N. Pettigrew (PI) and **B. Dzwonkowski**, \$999,826 (Feb 2014, Not Funded)
- National Oceanic and Atmospheric Administration, Marine Sensor and Other Advanced Observing Technologies Transition project, “Operational heat flux estimate from mid-latitudes buoy platforms”, **B. Dzwonkowski (PI)** and N. Pettigrew, \$604,605 (Feb 2014, Not Funded)
- National Aeronautics and Space Administration, Research Opportunities in Space and Earth Sciences (ROSES), ‘Assessing the role of discharge and circulation on temperature variability in a river-influenced system’, **B. Dzwonkowski (PI)**, \$260,054 (Aug 2013, Not Funded).
- Office of Naval Research, Littoral Geosciences and Optics Program, Relating in-situ particle’s concentration, size-distribution and packaging to turbulent forcing as function of depth at the inner-shelf. E. Boss (PI), **B. Dzwonkowski**, and C. R. Sherwood, \$668,099 (April 2013, Not Funded)
- NOAA Maine Sea Grant Program, “Assessing the role of interannual to interdecadal variability in coastal hydrographic distributions in the Gulf of Maine”, **B. Dzwonkowski (PI)**, and N. R. Pettigrew, \$107,697 (Feb 2013, Not Funded)
- National Science Foundation, Physical Oceanography Program, “Collaborative Research: Role of coastal setting and environmental conditions on the near-field region of discharge plumes and the transition to the far-field”, **B. Dzwonkowski (PI)**, K. Park, and B. Webb, \$394,462 (Feb 2013, Not Funded)

National Aeronautics and Space Administration, Research Opportunities in Space and Earth Sciences (ROSES), ‘Monitoring climate change impacts in marine systems through the development of a shelf ocean change indicator.’, **B. Dzwonkowski (PI)**, \$129,094 (Oct. 2012, Not Funded).

National Science Foundation, Physical Oceanography Program, ‘Multi-scale Analysis of Temperature and heat transport in a River-dominated shelf System (MATERS)’, **B. Dzwonkowski (PI)** and K. Park, \$406,466 (Aug 2012, Not Funded).

National Aeronautics and Space Administration, Research Opportunities in Space and Earth Sciences (ROSES), ‘Multi-scale Analysis of TEMperature and heat transport in a River-dominated shelf System (MATERS)’, **B. Dzwonkowski (PI)** and K. Park, \$406,466 (Jun 2012, Not Funded).

NOAA National Ocean Service, Implementation of the U.S. Integrated Ocean Observing System (IOOS), “Continued development of the Gulf of Mexico Coastal Ocean Observing System (Lead PI: A.E. Jochens at TAMU)” (10/01/2011-09/30/2012), K. Park (PI at DISL) and **B. Dzwonkowski**, \$366,823 (Accepted but not funded).

Alabama Department of Marine Resources, Alabama Coastal Research Program, “Characterizing the features and frequency of extreme water level and circulation events in Mobile Bay, Alabama” **B. Dzwonkowski (PI)** and K. Park, \$53,624 (Mar 2012, Not Funded).

National Science Foundation, Physical Oceanography Program, “Role of discharge plumes in controlling the exchange of material in the coastal environment”, **B. Dzwonkowski (PI)**, K. Park, S. Howden, and B. Webb, \$413,177 (Feb 2012, Not Funded)

Gulf of Mexico Research Initiative, RPF-II, “Cross-shelf dispersion mechanisms in the Mississippi-Alabama inner shelf” A. Valle-Levinson (PI), B. Webb, K. Park and **B. Dzwonkowski**, \$1,800,000 (Jan 2012, Not Funded)

Gulf of Mexico Research Initiative, RPF-II, “Material Exchange and Pathways of Contaminant Transport in a Multiple Inlet Gulf of Mexico Estuary ” B. Webb (PI), K. Park, A. Valle-Levinson and **B. Dzwonkowski**, \$215,730 (Jan 2012, Not Funded)

Gulf of Mexico Research Initiative, RPF-II, “Influence of shelf circulation and dynamics in the determining the transport pathways of oil and oil-derived materials on the inner shelf” **B. Dzwonkowski (PI)**, K. Park, S. Howden, and B. Webb, \$1,082,879 (Jan 2012, Not Funded)

Gulf of Mexico Research Initiative, RPF-I 2011 for Consortia, Consortium for Developing Improved Decision Support Tools for Oil Spill Response and Mitigation , University of Southern Mississippi, S. Howden (PI), Participant, \$602,620 (June 2011, Not Funded)

Gulf of Mexico Research Initiative, RPF-I, Estuary and Coastal Ocean PETroleum Research Consortium (ECO PERC), University of Florida, Y. P. Sheng (PI), Participant, \$594,976 (June 2011, Not Funded)

Gulf of Mexico Research Initiative, RPF-I, Effects of Oil Spill on Oyster Populations and Public Health in the Gulf of Mexico, Louisiana State University, C. Li (PI), Participant, (June 2011, Not Funded)

Gulf of Mexico Research Initiative, RPF-I, Marine Science Consortium, J. Valentine (PI), Participant, (June 2011, Not Funded)

### **Invited Talks**

38. **Dzwonkowski, B.**, A. Puzhankara, J. Lehrter, Z. Liu, G. Lockridge, and D. Rao (2024), Invited Speaker, An interannual perspective on the dissolved oxygen conditions on the Alabama shelf and potential drivers contributing to hypoxic events. *Gulf of Mexico Conference*, Tampa Bay, FL (Feb 19)
37. Dzwonkowski, B (2024), Invited Speaker/Session Convener, Marine heatwaves, *GCOOS Spring Meeting*, Galveston, TX (May 9).
36. Dzwonkowski, B (2023), Invited Speaker, Marine heatwaves in the Gulf of Mexico, *GCOOS Fall Meeting*, Online platform (Oct 10).
35. Dzwonkowski, B (2023), Invited Speaker, Existing and developing capacities for coastal and estuarine research in coastal Alabama, *Mississippi Sound Habitat Focus Area Workshop*, Biloxi, MS (June 6-7).
35. Dzwonkowski, B (2023), Invited Speaker, Cascading weather events amplify the coastal thermal conditions prior to the shelf transit of Hurricane Sally (2020), *University of South Mississippi Seminar Series*, Stennis Space Center, MS, Feb 17.
34. Dzwonkowski, B (2022), Invited Speaker, Cascading weather events amplify the coastal thermal conditions prior to the shelf transit of Hurricane Sally (2020), *Dauphin Island Sea Lab Seminar Series*, Dauphin Island, AL, Sep 9.
33. Dzwonkowski, B. (2022), Invited Speaker, Underwater perspective of a storm and the potential for forecast benefits, Marine Technology Society, Oceans in Action/Port Security Summit. Gulf Port, MS, Mar 9.
32. Dzwonkowski, B. (2021), Invited Speaker, Expansion of the [www.mymobilebay.com](http://www.mymobilebay.com) for coastal management application, NOAA RESTORE Program Review, Nov 14.



31. Dzwonkowski, B. (2021), Invited Speaker, Expansion of the [www.mymobilebay.com](http://www.mymobilebay.com) for coastal management application, Bi-monthly NOAA RESTORE Executive Oversight Board Meeting, Jun 2.
30. Dzwonkowski, B. (2021), Invited Panelist Speaker, Addressing cross-scale problems in the marine environment: Ocean to Shelf to Estuary Connectivity, Gulf of Mexico Conference (GOMCON), Apr 14.
29. Dzwonkowski, B. (2020) Expanding Alabama's Real-time Coastal Observing System (ARCOS) for coastal management applications. NOAA National Ocean Service Center for Operational Oceanographic Products and Services, Sep 9.
28. Dzwonkowski, B. (2020) Expanding Alabama's Real-time Coastal Observing System (ARCOS) for coastal management applications. NOAA RESTORE Science Program Webinar Series, Sep 3.
27. Dzwonkowski, B. (2020) The little buoy that could: Improving historical access in the Mississippi Bight and a case study of its use in coastal application. NOAA Gulf of Mexico Forum Webinar Series, June 8.
26. Dzwonkowski, B. (2020) Hurricanes and Heatwaves: Compounding processes drive extreme events in the coastal ocean. DISL World Ocean Celebration, Dauphin Island, AL, June 8. **Feature in GCOOS News Letter (June 2020) -**  
<https://myemail.constantcontact.com/GCOOS-News---Updates--GCOOS-Opens-Call-for-Proposals-for-5-Year-Work-Plan-and-More-News-from-Around-the-Gulf.html?soid=1116602485082&aid=Gk27sn8FUy0>
25. Dzwonkowski, B. (2019) Bonnet Carre Spillway 2019 event: Environmental impacts in the Mississippi Bight. Gulf States Marine Fisheries Commission 70<sup>th</sup> Annual Gulf Fisheries Meeting, Biloxi, Mississippi, Oct 16.
25. Dzwonkowski, B. (2019) Estuaries and their exchange with the shelf: Implications for oil spills. Sea Grant Oil Spill Seminar Series: Oil spill impacts on estuaries, Grand Bay, Mississippi, Jul 1.
24. Dzwonkowski, B. (2019) Meteorological and marine data for education efforts. Cigara PIRA: Teacher Workshop, NSF PIRA Program, University of South Alabama, Mobile Bay, AL, Jun 24.
23. Dzwonkowski, B. (2019) Tracking sea surface salinity and oxygen in the Mississippi Bight: Shelf to estuary connectivity. Gulf of Mexico Research Initiative Synthesis Core 1 Workshop: Plume & Circulation Observation & Modeling, Florida State University, Tallahassee, FL, Jan. 15.

22. Dzwonkowski, B. (2018) Aspects of dissolved oxygen conditions in the Mississippi Bight coastal region. Mississippi/Alabama Working Group meeting, Long Beach, MS, Sep 20.
21. Dzwonkowski, B. (2018) The forgotten region of freshwater influence: A tale of water column stability and the role of velocity shear on shelf stratification in the Mississippi Bight. Seminar series, Tulane University, New Orleans, Sep 14.
20. Dzwonkowski, B. (2018) Influence of estuarine-shelf exchange on the coupled bio-physical water column structure during the Fall, University of West Florida GeoScholars Seminar Series, Pensacola, FL, Apr 26.
19. Dzwonkowski, B. (2017) Impacts of river discharge on the coastal environment: Perspectives from a long-term mooring system in Mississippi Bight, 4<sup>th</sup> Annual Young Coastal Scientists and Engineers Conference, Dauphin Island, AL, Aug 21. Keynote Speaker
18. Dzwonkowski, B. (2017) Influence of estuarine-shelf exchange on the coupled bio-physical water column structure during the Fall. Mississippi State University, Starkville, MS, Mar 23.
17. Dzwonkowski, B. (2016) Influence of estuarine-shelf exchange on the coupled bio-physical water column structure during the Fall. Texas A&M University at Galveston, Galveston, TX, Nov 17.
16. Dzwonkowski, B. (2015) Role of discharge on hydrography and circulation in the coastal waters of Alabama, Department of Marine Sciences seminar series, University of Southern Mississippi, Stennis Space Center, MS, Aug 28.
15. Dzwonkowski, B. (2015) The role of river discharge on hydrography and circulation in the coastal waters of Alabama, Department of Coastal Sciences seminar series, Gulf Coast Research Laboratory, University of Southern Mississippi, Ocean Springs, MS, Apr 30.
14. Dzwonkowski, B. (2014) Transport and circulation in the coastal environment, Department of Marine Sciences Program, University of South Alabama, Mobile, AL, May 19.
13. Dzwonkowski, B. (2014) Transport and circulation in the coastal environment, Marine Sciences Program, Department of Marine Science, University of Southern Mississippi, Stennis Space Center, MS, May 1.
12. Dzwonkowski, B. (2014) Temporal and spatial variability in Broad Sound, Casco Bay, ME, Marine Science Student Organization, University of Maine, Apr. 7.
11. Dzwonkowski, B. (2014) Transport and circulation in the coastal environment, Marine Sciences Program, Department of Earth and Environmental Science, Montclair State University, Montclair, NJ, Feb 4.

10. Dzwonkowski, B. (2013) Wind-driven circulation on the inner shelf, Marine Sciences Program, Department of Natural Sciences, Savannah State University, Savannah, GA, May 30.
9. Dzwonkowski, B. (2012) Transport and circulation in the coastal environment, Department of Physical Sciences Seminar Series, Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA, Apr 16.
8. Dzwonkowski, B. (2012) Transport and circulation in the coastal environment, School of Marine Sciences Seminar Series, School of Marine Sciences, University of Maine, Orono, ME, Mar 21.
7. Dzwonkowski, B., (2011) Across-shelf surface transport and velocity structure on a coastal shelf directly influenced by estuarine outflow. Center for Ocean-Atmospheric Prediction Studies Seminar Series, Florida State University, Tallahassee, FL, Nov 17.
6. Dzwonkowski, B. (2011) From the coast to the sea: Transport and circulation in the coastal environment, Department of Ocean Seminar Series, Earth and Atmospheric Sciences, Old Dominion University, Norfolk, VA, Oct 13.
5. Dzwonkowski, B. (2011) Transport and circulation in the coastal environment, Department of Marine Science, Coastal Carolina University, Conway, SC, Aug 30.
4. Dzwonkowski, B. (2010) From estuaries to the ocean: Transport and circulation in the coastal ocean, Summer Seminar Series, Dauphin Island Sea Lab, Dauphin Island, AL, Jun 22.
3. Dzwonkowski, B., Park, K., and Ha, H.K. (2010) Variability of temperature and salinity on a coastal shelf directly impacted by estuarine discharge, Department of Marine Science Seminar Series, University of Southern Mississippi, Stennis Space Center, MS, Apr 9.
2. Dzwonkowski, B. (2009) Applications of remote sensing in studying coastal circulation, Department of Environmental Studies Seminar Series, University of West Florida, Pensacola, FL, Oct. 7.
1. Dzwonkowski, B. (2009) Synoptic observations and analyses of surface current measurements from HF radar in the central Mid-Atlantic Bight, Dauphin Island Sea Lab Seminar Series, Dauphin Island, AL, May 4.

## **Presentations**

58. **Dzwonkowski, B.**, A. Puzhankara\*, J. Lehrter, Z. Liu, and D. Rao (2024) Summer Surprise: Monitoring the persist, large-scale hypoxic event over the Mississippi-Alabama shelf in 2024, *Mississippi Alabama Sea Grant Consortium Bay and Bayous Symposium*, Biloxi, MS, Nov 19.

57. **Dzwonkowski, B.**, J. Lehrter, Z. Liu, and A. Puzhankara\* (2024) Understanding dissolved oxygen dynamics east of the Mississippi Delta, *Gulf of Mexico Alliance Water Resources Mid-Year Meeting*, Online, Oct 16.
56. **Dzwonkowski, B.**, A. Puzhankara\*, S. Fournier, J. Lehrter, G. Lockridge, Z. Liu, and D. Rao\*(2024) Characterizing impacts of river discharge during the unprecedented 2019 openings of the Bonnet Carre Spillway in the northern Gulf of Mexico, *Physics of Estuaries and Coastal Seas*, Bordeaux, France, Sep 27.
55. **Dzwonkowski, B.**, S. Fournier, Carwithen\*, R., G. Lockridge, Z. Liu<sup>+</sup>, D. Rao\*, J. Coogan, and K. Park (2023) Impact of hurricanes on the coastal ocean during the onset of the fall transition in the Mississippi Bight, northern Gulf of Mexico, *Biannual CERF Conference*, Portland, OR Nov 16.
54. **Dzwonkowski, B.**, S. Fournier, Carwithen\*, R., G. Lockridge, Z. Liu<sup>+</sup>, D. Rao\*, J. Coogan, and K. Park (2023) Variability in the thermal response of the coastal ocean to tropical cyclones in the Mississippi Bight, *Gordon Research Conference on Coastal Ocean Dynamics*, Bryant University, RI Jun 19.
53. **Dzwonkowski, B.**, J. Lehrter, D. Tian, Z. Liu, G. Lockridge, D.R.M Rao, and A. Puzhankara (2023), Characterizing hypoxia on the Alabama shelf during unprecedented 2019 opening of the Bonnet Carre Spillway, *Bays and Bayous Symposium*, Mobile, AL, Jan 24.
52. **Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2022) Hurricane Sally (2020) generates a coastal shift in the ocean thermal structure during rapid intensification, *The Gulf Of Mexico CONference (GOMCOM) 2022*, Baton Rouge, LA, Apr 26.
51. **Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2022) Cascading weather events amplify the coastal thermal conditions prior to the shelf transit of Hurricane Sally (2020), *AGU/ASLO/TOS Bi-annual Ocean Sciences Meeting*, Feb 28.
50. **Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2021) Cascading weather events amplify the coastal thermal conditions prior to the shelf transit of Hurricane Sally (2020), *AGU Fall Meeting 2021*, New Orleans, LA, Dec 15.
49. **Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2020) Evolution of the temperature conditions during the rapid intensification of Hurricane Sally (2020) over the Alabama shelf, *AGU Fall Meeting 2021*, New Orleans, LA, Dec 14.

48. **Dzwonkowski, B.**, J. Coogan, G. Lockridge and M. Long (2021) Observations of the coupled impact of near-inertial oscillations and geostrophic shear on shelf stratification, Bi-annual CERF meeting, Nov 8.
47. **Dzwonkowski, B.**, J. Coogan, S. Fournier, G. Lockridge, K. Park, and T. Lee (2021) Sequence of severe weather events generates marine heatwave in the coastal ocean: Implications for Hurricane Michael, AMS 101st Annual meeting, Jan. 11.
46. **Dzwonkowski, B.**, J. Coogan, J. Lehrter, G. Lockridge, A. Hagemeyer, and S. Dykstra (2020) Assessing the impacts of the unprecedented 2019 opening of the Bonnet Carré Spillway in the Mississippi Bight, Alabama-Mississippi Bays and Bayous Symposium, (Online Conference), Dec 1-3.
45. **Dzwonkowski, B.**, J. Coogan, S. Fournier, G. Lockridge and K. Park (2020) Compounding atmospheric events impacting shelf heat content: , Bi-annual Ocean Sciences Meeting, AGU/ALSO/TOS, San Diego, CA Feb. 17.
44. **Dzwonkowski, B.**, J. Coogan, S. Fournier G. Lockridge and K. Park (2019) Compounding atmospheric events impacting shelf heat content: Implications for Hurricane Michael, Bi-annual CERF meeting, Mobile, AL Nov 5.
43. **Dzwonkowski, B.**, J. Coogan, S. Fournier, K. Park, S. Milroy, A. Shiller, A. Greer, S.L. Dykstra, I. Soto, V. Sanial, J. Lehrter and J.T. Reager, (2019) Shelf bottom dissolved oxygen conditions and their impacts on adjacent estuarine systems in a region of freshwater influence, Mississippi Bight, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA Feb 6.
42. **Dzwonkowski, B.**, Coogan, J\*, J. Lehrter, B. Webb, R. Nelson, and J. Cebrian (2018) Salt intrusion in Fowl River, Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Nov 28.
41. **Dzwonkowski, B.**, S. Fournier, J. Coogan, J.T. Reager, S. Milroy, K. Park, A. Greer, A. Shiller, I. Soto, S.L. Dykstra, and V. Sanial (2018) Tracking the sea surface salinity and dissolved oxygen in the Mississippi Bight: Is the system primed for hypoxia?, Physics of Estuaries and Coastal Seas, Galveston, TX, Oct 19.
40. Collini, R. and **B. Dzwonkowski** (2018) Displaying TSS and turbidity on [www.mymobilebay.com](http://www.mymobilebay.com), Science Advisory Committee Meeting, Mobile, AL, May 15.
39. **Dzwonkowski, B.**, S. Fournier, K. Park, and J.T. Reager (2018) Wrong Side of the River: A tale of water column stability and the role of velocity shear on shelf stratification in the Mississippi Bight, the forgotten region of freshwater influence, AGU Ocean Conference, Portland, OR Feb 8.

38. **Dzwonkowski, B.**, S. Fournier, K. Park, and J.T. Reager (2018) Water column stability and the role of velocity shear on shelf stratification in the Mississippi Bight, the forgotten region of freshwater influence, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 4.
37. Collini, R., **B. Dzwonkowski**, and H. King (2017) Real-time observing in coastal Alabama, Mississippi Hypoxia Working Group, Long Beach, MS, Aug 12.
36. **Dzwonkowski, B.**, and S. Dykstra\* (2017) Observations of internal waves in the coastal waters of Alabama, Gordon Research Conference on Coastal Ocean Dynamics, Biddeford, ME, Jun 12.
35. **Dzwonkowski, B.**, and S. Dykstra (2017) Observations of internal waves in the coastal waters of Alabama, Gulf of Mexico Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, New Orleans, LA, Feb 9.
34. **Dzwonkowski, B.**, A.T. Greer, C. Briseno-Aveno, J. Krause, D. Joung, I. Soto Ramos, F. Hernandez, A. Deary, J. Wiggert, P. Fitzpatrick, S. O'Brien\*, S. Dykstra\*, Y. Lau, M.K. Cambazoglu, G. Lockridge, S. Howden, A.M. Shiller, and W.M. Graham (2017) Influence of estuarine-exchange on the coupled bio-physical water column structure during the fall season on the Alabama shelf, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, New Orleans, LA, Feb 9.
33. **Dzwonkowski, B.**, A. Robertson, G. Lockridge and B. Walton (2016) Red tide bloom event in coastal Alabama: A physical perspective, Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Dec 1.
32. Tzeng, M., **B. Dzwonkowski**, and K. Park (2016) Data Processing for a small-scale long-term coastal ocean observing system near Mobile Bay, Alabama, American Geophysical Union Ocean Science Meeting, New Orleans, LA, Feb 23.
31. **Dzwonkowski, B.**, and K. Park (2016) Impact of river discharge on the hydrography and circulation on the inner shelf, American Geophysical Union Ocean Science Meeting, New Orleans, LA, Feb 22.
30. **Dzwonkowski, B.**, and K. Park (2016) Role of river discharge on the hydrography and circulation on the inner shelf, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, Tampa Bay, FL, Feb 2.
29. **Dzwonkowski, B.**, K. Park, and R. Collini (2015) Characterizing the structure and evolution of the Mobile Bay discharge plume during a flood event, Coastal and Estuarine Research Federation Bi-Annual Conference, Portland, OR, Nov 11.
28. **Dzwonkowski, B.**, K. Park, and R. Collini (2015) The coupled estuarine-shelf response of a river-dominated system during the transition from low to high discharge, Oil Spill and

- Ecosystem Science Conference, Gulf of Mexico Research Initiative, Houston, TX, Feb 18.
27. **Dzwonkowski, B.**, N. Pettigrew, and S. Knapp\* (2014) Spatial and temporal variability in the along-channel velocity of a weakly stratified estuary, Broad Sound, Casco Bay, Maine, American Geophysical Union Fall Meeting, San Francisco, CA, Dec 16.
  26. **Dzwonkowski, B.**, K. Park, and S. Howden (2014) Evolution and fate of a Mobile Bay discharge plume, Alabama-Mississippi Bays and Bayous Symposium, NOAA Sea Grant, Mobile, AL, Dec 2.
  25. **Dzwonkowski, B.** (2014) High frequency radar needs of coastal Alabama, High frequency radar needs in the Gulf of Mexico webinar, GCOOS, Online, Oct 27.
  24. **Dzwonkowski, B.**, K. Park, Lee, J., B. Webb, and A. Valle-Levinson, (2013) Spatial variability in the spring seasonal velocity structure on a river-influenced inner shelf in coastal Alabama, Gordon Research Conference on Coastal Ocean Circulation Meeting, Biddeford, ME, Jun 9-14.
  23. **Dzwonkowski, B.**, K. Park, Lee, J., B. Webb, and A. Valle-Levinson, (2013) Spring seasonal velocity structure on a river-influenced inner shelf: where is the coastal current?, Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting, New Orleans, LA, Feb 17-22.
  22. **Dzwonkowski, B.**, K. Park, and L. Jiang (2012) Across-shelf surface transport and velocity structure on the Alabama shelf, American Geophysical Union Ocean Science Meeting, Salt Lake City, UT, Feb. 21.
  21. **Dzwonkowski, B.**, and K. Park (2011) Subtidal circulation on the Alabama shelf during the Deepwater Horizon oil spill, National Science and Technology Council's Joint Subcommittee on Ocean Science and Technology Deep water Horizon Oil Spill Principal Investigator Conference, Gulf of Mexico Research Initiative, St. Petersburg, FL, Oct. 5.
  20. **Dzwonkowski, B.**, K. Park, and L. Jiang (2011) Across-shelf surface transport and velocity structure on a coastal shelf directly influenced by estuarine outflow. Northern Gulf Institute Conference, Mobile, AL, May 19.
  19. **Dzwonkowski, B.**, L. Carassou, M. Drymon, K. Park, F.J. Hernandez, W.M. Graham, and S.P. Powers (2011) Impact of fresh water variability on physical and biological aspects of the marine system on the northeastern Gulf of Mexico. American Society of Limnology and Oceanography Aquatic Science Meeting, San Juan, PR, Feb.
  18. **Dzwonkowski, B.**, K. Park, H.K. Ha, W.M. Graham, F.J. Hernandez, and S.P. Powers (2010) The influence of Mobile Bay on the hydrographic variability of the inner Alabama shelf, Alabama-Mississippi Bays and Bayous Symposium, Mobile, AL, Dec

17. **Dzwonkowski, B.**, Park, K., and H.K. Ha (2010). Seasonal currents on the inner Alabama shelf, Northern Gulf Institute Conference, Mobile, AL, May 18.
16. **Dzwonkowski, B.**, K. Park, and H.K. Ha (2010). Hydrographic variability on a coastal shelf directly impacted by estuarine discharge, American Geophysical Union Ocean Science Meeting, Portland, OR, Feb.
15. Wong, K.-C., **B. Dzwonkowski**, and W. Ullman (2009) Variability of sea level and volume flux in the Murderkill River estuary, Delaware Estuary Science and Environmental Summit, Partnership for the Delaware Estuary, Cape May, NJ, Jan 11-14.
14. **Dzwonkowski, B.** (2008) Tracking flow features in the coastal zone using ocean color and high frequency radar data, 3<sup>rd</sup> Annual NASA Space Grant Research Symposium, Newark, DE, Nov 13.
13. **Dzwonkowski, B.** (2008) The application of HF radar and ocean color data to study surface circulation in the coastal zone, IEEE/OES Chile-US Workshop on Ocean Observation Systems, Vina del Mar, Chile, Nov. 4
12. **Dzwonkowski, B.**, J. Kohut, B. Lipphardt, and X.H. Yan (2008) Seasonal Patterns and Forcing Relationships in shelf surface layer on the central Mid-Atlantic Bight shelf, Physical Oceanography and Meteorology Meeting, Woods Hole, MA, Sep 23.
11. **Dzwonkowski, B.**, J. Kohut, B. Lipphardt, and X.-H. Yan (2008) Seasonal Patterns and Forcing Relationships in shelf surface layer on the central Mid-Atlantic Bight shelf, University of Delaware/Xiaman University Joint Institute for Coastal Research and Management Workshop, Newark, DE, Oct 28.
10. **Dzwonkowski, B.**, Lipphardt B., Kohut, J, Yan, X.-H., and Garvine, R. (2008) Observations of surface layer sub-inertial across-shelf flows on the mid-shelf across-shelf flow of the central Mid-Atlantic Bight, American Geophysical Union Ocean Science Meeting, Orlando, FL, Mar.
9. **Dzwonkowski, B.** (2007) Signal or Noise: Examining relatively high frequency signals from oddly sampled and gappy data, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Dec.
8. **Dzwonkowski, B.**, B. Lipphardt, J. Kohut, X.-H. Yan, and R. Garvine (2007) Observations of mid-shelf across-shelf flow in the central Mid-Atlantic Bight, Physical Ocean Science and Engineering Seminar Series, Newark, DE, Nov.
7. **Dzwonkowski, B.**, B. Lipphardt, J. Kohut, X.-H. Yan, and R. Garvine (2007) Description of shelf across-shelf flow in the central Mid-Atlantic Bight, Mid-Atlantic Bight Physical Oceanography and Meteorology Meeting, New Brunswick, NJ, Oct.



6. **Dzwonkowski, B.** (2006) EOF analysis of sub-tidal surface currents in the MAB, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Nov
5. **Dzwonkowski, B.,** and Yan X.-H. (2006) Analysis of inertial and sub-inertial surface currents from high frequency radar in the central mid-Atlantic bight. American Geophysical Union Ocean Science Meeting, Honolulu, HI, Feb.
4. **Dzwonkowski, B.** (2005) Examination of high frequency radar surface current measurements in the Mid-Atlantic Bight, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Nov
3. **Dzwonkowski, B.,** and X.-H. Yan, (2004) Tracking of a Chesapeake Bay estuarine outflow plume with satellite-based ocean color data, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Nov
2. **Dzwonkowski, B.,** and X.-H. Yan (2004) Development and application of a neural network based ocean color algorithm in coastal waters. (OS41B-02) American Geophysical Union Ocean Science Meeting, Portland, OR, Jan.
1. **Dzwonkowski, B.,** and X.-H. Yan (2003) Use of neural networks in coastal ocean color algorithm development. Coastal Zone Conference, Baltimore, MD, Jul.

**Abstracts** (Denotes \*Student or +Postdoc author mentored by Dzwonkowski)

Lehrter, J., G. de Oliveira, **B. Dzwonkowski**, H. Haas, J. Haner, L. Kalin, Z. Liu, B. Morrison, H. Sreeshylam, and D. Tian (2025) Mechanisms driving the patterns and pace of water quantity and quality changes in subtropic, river-dominated delta and estuary. *Biannual European Geophysical Union Meeting*, Vienna, Austria, Apr 27 .

Shrestha, A. Di Tian and **B. Dzwonkowski** (2024) Understanding and projecting terrestrial hydroclimate impacts on river discharge to the coastal ocean using explainable deep learning. *American Geophysical Union Fall Meeting*, Washington D.C., Dec 9 .

**Dzwonkowski, B.,** A. Puzhankara\*, J. Lehrter, Z. Liu, and D. Rao (2024) Summer Surprise: Monitoring the persist, large-scale hypoxic event over the Mississippi-Alabama shelf in 2024, *Mississippi Alabama Sea Grant Consortium Bay and Bayous Symposium*, Biloxi, MS, Nov 19.

Puzhankara\*, A., **B. Dzwonkowski**, J. Lehrter, Z. Liu, and G. Lockridge (2024) Impact of river discharge on hypoxia in the Mississippi Bight during the 2019 flood year, *Mississippi Alabama Sea Grant Consortium Bay and Bayous Symposium*, Biloxi, MS, Nov 19.

- Sreeshtylam\*, H., Z. Liu, **B. Dzwonkowski**, J. Lehrter, and J. Coogan (2024) Anthropogenic influence on the dynamics of Mobile Bay: Effects of mild to severe ship channel deepening and widening, *Mississippi Alabama Sea Grant Consortium Bay and Bayous Symposium*, Biloxi, MS, Nov 19.
- Plumlee, J., Z. Liu, R. Baker, **B. Dzwonkowski**, H. Ehrmann, J. Lehrter, and S. Powers (2024) Recruitment phenology correlates with long-term changes to temperature and salinity in a dynamic northern Gulf of Mexico estuary, *Mississippi Alabama Sea Grant Consortium Bay and Bayous Symposium*, Biloxi, MS, Nov 19.
- Rao\*, D., **B. Dzwonkowski**, S. Fournier and G. Lockridge (2024) Understanding the cross-shelf expansion of a full water column marine heatwave in a river-dominated system during hurricane season. *US-CLIVAR Optimizing Ocean Observing Networks of Detecting the Coastal Climate Signal Workshop*, Boulder, CO (Sep 23)
- Oxford\*, C., **B. Dzwonkowski** and J. Goff (2024) Salty Surge: Understanding salinity dynamics in upper Mobile Bay, AL, *Dauphin Island Sea Lab NSF REU Poster Session*, Dauphin Island, AL, Aug 1.
- Rao\*, D., B. Dzwonkowski, S. Fournier and G. Lockridge (2024) Trapping a coastal marine heatwave at depth through a hurricane season heat pump. *Graduate Student Symposium*, Dauphin Island, AL (April 21)
- Sreeshtylam\*, H., Z. Liu<sup>+</sup>, **B. Dzwonkowski**, J. Lehrter, and L. Lowe (2023) Influence of a narrow, deep ship channel and wide shallow shoals on the dynamics of Mobile Bay, Alabama, *Graduate Student Symposium*, Dauphin Island, AL (April 21)
- Puzhankara\*, A., B. Dzwonkowski, J. Lehrter, Z. Liu<sup>+</sup>, G. Lockridge, and D. Rao (2024) Interannual variability in the dissolved oxygen dynamics with physical drivers on a seasonally stratified shelf, Mississippi Bight, northern Gulf of Mexico. *Graduate Student Symposium*, Dauphin Island, AL (April 21)
- Rao\*, D., B. Dzwonkowski, S. Fournier and G. Lockridge (2024) Trapping a coastal marine heatwave at depth through a hurricane season heat pump. *AGU/ASLO Ocean Science Meeting*, New Orleans, LA (Feb 20)
- Sreeshtylam\*, H., Z. Liu<sup>+</sup>, **B. Dzwonkowski**, J. Lehrter, and L. Lowe (2023) Influence of a narrow, deep ship channel and wide shallow shoals on the dynamics of Mobile Bay, Alabama, *AGU/ASLO Ocean Science Meeting*, New Orleans, LA (Feb 20)
- Clemo, W. C., Dorgan, K. M., **Dzwonkowski, B.**, and Wallace, D. J. (2024) Impacts of repeated hurricane disturbance on shallow coastal sediment and infaunal communities, *AGU/ASLO Ocean Science Meeting*, New Orleans, LA (Feb 20)

**Dzwonkowski, B.,** A. Puzhankara, J. Lehrter, Z. Liu, G. Lockridge, and D. Rao (2024) An interannual perspective on the dissolved oxygen conditions on the Alabama shelf and potential drivers contributing to hypoxic events. *Gulf of Mexico Conference*, Tampa Bay, FL (Feb 19)

Puzhankara, A., B. Dzwonkowski, J. Lehrter, Z. Liu, G. Lockridge, and D. Rao (2024) Connecting interannual variability in the dissolved oxygen dynamics with physical drivers on a seasonally stratified shelf, Mississippi Bight, northern Gulf of Mexico. *AGU/ALSO Ocean Science Meeting*, New Orleans, LA (Feb 18)

Liu, Z., J. Lehrter, B. Dzwonkowski, and L. Lowe (2024) Coastal modeling for estuarine habitat and water quality resilience to climate change and human activity in the northern Gulf of Mexico, *AGU/ASLO Ocean Sciences Meeting*, New Orleans, LA (Feb 17).

Clemo, W. C., Dorgan, K. M., **Dzwonkowski, B.**, and Wallace, D. J. (2024) Impacts of repeated hurricane disturbance on shallow coastal sediment and infaunal communities, *Marine Geological and Biological Habitat Mapping (GeoHab) Conference*. May 6-10, 2023. Arendal, Norway.

**Dzwonkowski, B.**, S. Fournier, Carwithen\*, R., G. Lockridge, Z. Liu<sup>+</sup>, D. Rao\*, J. Coogan, and K. Park (2023) Impact of hurricanes on the coastal ocean during the onset of the fall transition in the Mississippi Bight, northern Gulf of Mexico, *Biannual CERF Conference*, Portland, OR, Nov 16.

Morrison, B., J. Jones, B. Dzwonkowski, and J. Krause (2023) Tracking Vibrio: Population dynamics and community ecology in Alabama estuaries, *Biannual CERF Conference*, Portland, OR, Nov 13.

Rao\*, D., **Dzwonkowski, B.**, Fournier, S., and Lockridge, G. (2023), “Exploring the Dynamics of Coastal Ocean Extremes: Marine Heatwaves and Landfalling Cyclones,” *Dauphin Island Sea Lab Fall Seminar Series*, Dauphin Island, AL, 3rd November 2023

Rao\*, D., **Dzwonkowski, B.**, Fournier, S., and Lockridge, G. (2023), “Evolution of Marine Heatwaves in the Continental Shelves of the Gulf of Mexico”, *National Association of Marine Laboratories (NAML) Biennial Meeting*, Brunswick, ME, 5<sup>th</sup> October 2023

Thrower\*, J., A. Puzkaran\*, Z. Liu<sup>+</sup> and **B. Dzwonkowski**, (2023) Relationships between dissolved oxygen, water column stratification and bottom boundary layer dynamics, *Dauphin Island Sea Lab NSF REU Poster Session*, Dauphin Island, AL, Aug 3.

Sreeshylam\*, H., Z. Liu<sup>+</sup>, **B. Dzwonkowski**, J. Lehrter, and L. Lowe (2023) Influence of a narrow, deep ship channel and wide shallow shoals on the dynamics of Mobile Bay, Alabama, *Gordon Research Conference on Coastal Ocean Dynamics*, Bryant University, RI Jun 20.

Liu<sup>+</sup>, Z., J. Lehrter, **Dzwonkowski, B.**, J. Coogan and L. Lowe (2023) Wind influences on hypoxia in a shallow stratified estuary, *Gordon Research Conference on Coastal Ocean Dynamics*, Bryant University, RI Jun 20.

**Dzwonkowski, B.**, S. Fournier, Carwithen\*, R., G. Lockridge, Z. Liu<sup>+</sup>, D. Rao\*, J. Coogan, and K. Park (2023) Variability in the thermal response of the coastal ocean to tropical cyclones in the Mississippi Bight, *Gordon Research Conference on Coastal Ocean Dynamics*, Bryant University, RI Jun 19.

Clemo, W. C., K. M. Dorgan, , D. J. Wallace, and **B. Dzwonkowski** (2023) Effects of Hurricane Sally (2020) on sediment structure and infaunal communities in coastal Alabama Coastal Sediments Conference. April 12. New Orleans, LA.

Rao\*, D.R.M., **B. Dzwonkowski**, and S. Fournier (2023) Rapid changes in tropical cyclone intensities over the coastal ocean: A global perspective, *Bays and Bayous Symposium*, Mobile, AL, Jan 24.

Sreeshylam\*, H., Z. Liu<sup>+</sup>, **B. Dzwonkowski**, J. Lehrter and J. Coogan (2023) Influence of a narrow, deep ship channel and wide shallow shoals on the dynamics of Mobile Bay, Alabama, *Bays and Bayous Symposium*, Mobile, AL, Jan 24.

Liu<sup>+</sup>, Z., J. Lehrter, **B. Dzwonkowski**, and L. Lowe (2023) Influences of changes in climate and land use/land cover on water quality and clarity in Wolf-Perdido Bay, *Bays and Bayous Symposium*, Mobile, AL, Jan 24.

Clemo, W., K. Dorgan, and **B. Dzwonkowski** (2023) Interactions between sediment stability and infaunal community structure following a hurricane disturbance, *Bays and Bayous Symposium*, Mobile, AL, Jan 24.

**Dzwonkowski, B.**, J. Lehrter, D. Tian, Z. Liu<sup>+</sup>, G. Lockridge, D.R.M Rao\*, and A. Puzhankara (2023) Characterizing hypoxia on the Alabama shelf during unprecedented 2019 opening of the Bonnet Carre Spillway, *Bays and Bayous Symposium*, Mobile, AL, Jan 24.

Rao\*, D.R.M., **B. Dzwonkowski**, and S. Fournier (2022) Rapid changes in tropical cyclone intensities over the coastal ocean: A global perspective, *AGU Fall Meeting 2022*, Chicago, IL, Dec 14.

Clemo, W., K. Dorgan, D. Wallace, and **B. Dzwonkowski** (2022) Interaction between sediment stability and infaunal community structure following a hurricane disturbance, *AGU Fall Meeting 2021*, Chicago, IL, Dec 14.

Liu<sup>+</sup>, Z., J. Lehrter, **B. Dzwonkowski** and L. Lowe (2022) Development of a cross-scale hydrodynamical model for Perdido Bay, *Alabama Water Resources Conference (AWRC) 2022*, Orange Beach, AL Aug 26.

Carwithen\*, R., and **B. Dzwonkowski** (2022) Variability in the thermal response of the coastal ocean to tropical cyclones: The quirky case of Hurricane Nate, Dauphin Island Sea Lab NSF REU Poster Session, Dauphin Island, AL Aug 4.

Liu<sup>+</sup>, Z., **B. Dzwonkowski**, J. Lehrter, L. Lowe, and J. Coogan (2022) Influence of wind on stratification and mixing in Mobile Bay, Alabama, a wide microtidal estuary, *12<sup>th</sup> International Workshop on Modeling the Ocean*, Anne Arbor, MI, Jun 28-Jul 1.

Liu<sup>+</sup>, Z., J. Lehrter, **B. Dzwonkowski** and L. Lowe (2022) Physical-biogeochemical response to climate change in Mobile Bay, AL, *The Gulf Of Mexico Conference (GOMCOM) 2022*, Baton Rouge, LA, Apr 26.

**Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2022) Hurricane Sally (2020) generates a coastal shift in the ocean thermal structure during rapid intensification, *The Gulf Of Mexico Conference (GOMCOM) 2022*, Baton Rouge, LA, Apr 26.

Morrison, B., J. Jones, **B. Dzwonkowski**, and J. Krause (2022) Tracking vibrio: Population dynamics and community ecology in Alabama estuaries, *The Gulf Of Mexico Conference (GOMCOM) 2022*, Baton Rouge, LA, Apr 25.

Liu<sup>+</sup>, Z., **B. Dzwonkowski**, J. Lehrter, L. Lowe, and J. Coogan (2022) Role of short term nonextreme wind on hypoxia evolution in a shallow stratified estuary - Mobile Bay, AL, *AGU/ASLO/TOS Bi-annual Ocean Sciences Meeting*, Feb 28.

Morrison, B., J. Jones, **B. Dzwonkowski**, and J. Krause (2022) Tracking vibrio: Population dynamics and community ecology in Alabama estuaries, *AGU/ASLO/TOS Bi-annual Ocean Sciences Meeting*, Feb 28.

**Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2022) Cascading weather events amplify the coastal thermal conditions prior to the shelf transit of Hurricane Sally (2020), *AGU/ASLO/TOS Bi-annual Ocean Sciences Meeting*, Feb 28.

Sreeshylam\*, H., Z. Liu<sup>+</sup>, **B. Dzwonkowski**, J.C. Lehrter, L. Lowe and M. Fung (2021) The influence of a novel salinity-based solar attenuation algorithm on modeled temperature in Mobile Bay. *AGU Fall Meeting 2021*, New Orleans, LA, Dec. 16

**Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2021) Cascading weather events amplify the coastal thermal conditions prior to the shelf transit of Hurricane Sally (2020), *AGU Fall Meeting 2021*, New Orleans, LA, Dec 15.

**Dzwonkowski, B.**, S. Fournier, G. Lockridge, Z. Liu<sup>+</sup>, J. Coogan, and K. Park (2021) Evolution of the temperature conditions during the rapid intensification of Hurricane Sally (2020) over the Alabama shelf, *AGU Fall Meeting 2021*, New Orleans, LA, Dec 14.

Liu<sup>+</sup>, Z., J. Lehrter, **B. Dzwonkowski** and L. Lowe (2021) Towards comprehensive ecosystem modeling in response to climate change in Mobile Bay, AL, *AGU Fall Meeting 2021*, New Orleans, LA, Dec 13.

**Dzwonkowski, B.**, J. Coogan, G. Lockridge and M. Long (2021) Observations of the coupled impact of near-inertial oscillations and geostrophic shear on shelf stratification, Bi-annual CERF meeting, Nov 8.

Liu<sup>+</sup>, Z., **B. Dzwonkowski**, J. Lehrter and L. Lowe (2021) Role of local mixing on system stratification: Impact of tidal inlets in Mobile Bay, AL, Bi-annual CERF meeting, Nov 7.

Deming, A., D. Moore<sup>c</sup>, T. Morgan, M. Russell, G. Vasquez, L. Albrittain<sup>e</sup> B. Baldrice, B. Mase, E. Fourgeres, K. Colegrove, A. Costidis, L. Garrison, **B. Dzwonkowski**, S. Dykstra, T. Rowles, and D. Fauquier (2021) Exposure to low salinity waters identified as cause of the 2019 Northern Gulf of Mexico Bottlenose Dolphin Unusual Mortality Event, 69<sup>th</sup> Wildlife Disease Association - 14<sup>th</sup> European Wildlife Disease Association - Joint Virtual Conference, Aug 31 – Sep 2.

Fournier, S., J.T. Reager, **B. Dzwonkowski** and J. Vazquez-Cuervo (2020) Statistical mapping of freshwater origin and fate signatures as land/ocean ‘regions of influence’ in the Gulf of Mexico, 43<sup>rd</sup> COSPAR Scientific Assembly, Sydney, AU Jan 28-Feb 4.

**Dzwonkowski, B.**, J. Coogan, S. Fournier, G. Lockridge, K. Park, and T. Lee (2021) Sequence of severe weather events generates marine heatwave in the coastal ocean: Implications for Hurricane Michael, AMS 101st Annual meeting, Jan. 11.

Wang, F., D. Tian, L. Lowe, L. Kalin, J. Lehrter and **B. Dzwonkowski** (2020) Deep learning for daily precipitation and temperature downscaling, AGU Fall Meeting, Dec 15.

Liu<sup>+</sup>, Z., **B. Dzwonkowski**, J. Lehrter, D. Ralston, L. Lowe, and J. Coogan (2020) Physical-biogeochemical response to climate change and sea level rise in the Mobile Bay, Alabama, AGU Fall Meeting, Dec 8.

Dykstra\* S. and **B. Dzwonkowski** (2020) Linking global precipitation intensification to coastal river and compound flooding, AGU Fall meeting, Dec 8.

**Dzwonkowski, B.**, J. Coogan<sup>+</sup>, J. Lehrter, G. Lockridge, A. Hagemeyer, and S. Dykstra (2020) Assessing the impacts of the unprecedented 2019 opening of the Bonnet Carré Spillway in the Mississippi Bight, Alabama-Mississippi Bays and Bayous Symposium, Dec 1-3.

- Dzwonkowski, B.**, J. Coogan<sup>+</sup>, S. Fournier, G. Lockridge and K. Park (2020) Compounding atmospheric events impacting shelf heat content, Bi-annual Ocean Sciences Meeting, AGU/ALSO/TOS, San Diego, CA Feb. 17.
- Larence\*, C., and **B. Dzwonkowski** (2020) Are Alabama upwellings broken? A comparison of burger number and velocity structure, Ocean Science meeting, AGU, San Diego, CA Feb. 20.
- Coogan<sup>+</sup>, J., **B. Dzwonkowski**, J. Lehrter, and S. Dykstra (2020) Observations from a 24-hour survey examining exchange between a deep shipping channel and shallow estuary in a microtidal system, Mobile Bay, AL, Ocean Science meeting, AGU, San Diego, CA Feb. 18.
- Dzwonkowski, B.**, J. Coogan\*, G. Lockridge and K. Park (2019) Compounding atmospheric events impacting shelf heat content: Implications for Hurricane Michael, Bi-annual Ocean Sciences Meeting, AGU/ALSO/TOS, San Diego, CA Feb. 17.
- Dykstra\* S. and **B. Dzwonkowski** (2019) Predictable to Flashy: The intensifying frequency of coastal flooding, northeast Gulf of Mexico, AGU Fall meeting, San Francisco, CA Dec 13.
- Fournier, S., J.T. Reager, B. Dzwonkowski and J. Vazquez-Cuervo (2019) Statistical mapping of freshwater origin and fate signatures as land/ocean ‘regions of influence’ in the Gulf of Mexico, AGU Fall meeting, San Francisco, CA Dec 12.
- Coogan\* J., **B. Dzwonkowski**, J. Letrher, K. Park, and R. Collini (2019) Physical drivers of dissolved oxygen in a shallow-highly stratified estuary, CERF Biannual meeting, Mobile, AL Nov 7.
- Dzwonkowski, B.**, J. Coogan\*, G. Lockridge and K. Park (2019) Compounding atmospheric events impacting shelf heat content: Implications for Hurricane Michael, Bi-annual CERF meeting, Mobile, AL Nov 5.
- Dykstra\* S. and **B. Dzwonkowski** (2019) Predictable to Flashy: Compounding impacts of discharge conveyance in a deltaic-estuarine environment, Mobile Bay, Alabama, CERF Biannual meeting, Mobile, AL Nov 5.
- Miller, M.M., A. Turner, A.E. Wilson, **B. Dzwonkowski**, P. Matson, T. Davis, and A. Robertson (2019). Spatiotemporal trends and environmental drivers of cyanobacterial blooms and microcystin production in the northern Gulf of Mexico from the 2019 Bonnet Carre Spillway Release 10<sup>th</sup> US Symposium on Harmful Algae, Orange Beach, AL Nov3-8.
- Matson, P., M.M. Miller, A. Turner, T. Davis, **B. Dzwonkowski**, A.E. Wilson, and A. Robertson (2019). Distribution, composition, and toxigenicity of microbial plankton assemblages across a salinity gradient following freshwater release of the Bonnet Carre Spillway into

Mississippi Sound. 10<sup>th</sup> US Symposium on Harmful Algae, Orange Beach, AL Nov3-8.

Webb, B., A. Beebe, R. Carmichael, J. Cebrian, J. Coogan\*, M. Cook, **B. Dzwonkowski**, J. Goff, E. Hieb, H. Horne, J. Kudulis, J. Lehrter, S. Smallegan and T. Thibaut (2018) An interdisciplinary collaboration leads to an assessment of marsh health in Fowl River, Alabama. Alabama Water Resources Conference, Gulf Shores, AL, Sep 5.

Larence\*, C., and B. Dzwonkowski (2019) Are Alabama upwellings broken? A comparison of burger number and velocity structure, Dauphin Island Sea Lab NSF REU Poster Session, Dauphin Island, AL Aug 4.

Coogan\*, J., **B. Dzwonkowski**, K. Park, and H. K Ha (2019) Bottom boundary layer and momentum dynamics in a microtidal estuary, Mobile Bay, AL, Gordon Research Conference on Coastal Ocean Dynamics, Biddeford, NH, Jun 14

Vazquez-Cuervo, J., S. Fournier, **B. Dzwonkowski**, and J.T. Reager (2019) Intercomparison of error characteristics across remote sensing products in the Gulf of Mexico, a river-influenced region, ESA Living Plant Symposium, Milan, Italy May 13-17.

Ashby, S., B. Dzwonkowski, S. Howden, J. Lopez, S. Milroy, and R. Collini (2019) From Turf to Surf: Connecting watersheds to hypoxia in the Gulf of Mexico, NOAA Central Region and Gulf of Mexico Regional Collaboration Teams, 2019 Annual Meeting, Maimi, FL Apr 9-12

O'Brien, S. J., S. L. Dykstra\*, S. M. Parra, **B. Dzwonkowski**, J. W. Book, C. Pan, M. S. Dinniman, P. J. Fitzpatrick, Y. H. Lau, K. Cambazoglu, E. Hofmann, and J. D. Wiggert (2019) Increased Suspended Sediment Concentration in Mississippi Bight during Spring 2016 evaluated using Acoustic Doppler Current Profiler Data and a Synthesis Numerical Model, U.S. Hydro Conference, Biloxi, MS, Mar 19-22.

Book, J. W., S. M. Parra, S. Dykstra\*, **B. Dzwonkowski**, S. D. Howden, S. J. Warner, J. N. Moum, C. Pan, M. K. Cambazoglu, and P. J. Fitzpatrick (2019) A Case Study of Inertial Oscillations and Diurnal Dynamics Offshore of Mobile Bay, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 7.

Dykstra\*, S. L., Dzwonkowski, B., Parra, S., Warner, S., Book, J., Moum, J., Greer, A. T., Briseno-Avena, C., (2019) Shelf convergence and transport near an ebb tidal delta, Mississippi Bight, northern Gulf of Mexico, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 7.

Greer, A.T., A.D. Boyette, M. K. Cambazoglu, V.J. Cruz, S.L. Dykstra\*, B. Dzwonkowski, C. Pan, L.M. Chiavarano, C. Briseno-Avena, R. K. Cowen, J.D. Wiggert (2019) Plankton thin layer mechanism of formation and cascading ecological impacts in the northern Gulf



of Mexico, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 6.

**Dzwonkowski, B.**, J. Coogan\*, S. Fournier, K. Park, S. Milroy, A. Shiller, A. Greer, S.L. Dykstra\*, I. Soto, V. Sanial, J. Lehrter and J.T. Reager, (2019) Shelf bottom dissolved oxygen conditions and their impacts on adjacent estuarine systems in a region of freshwater influence, Mississippi Bight, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 6.

Parra, S. M., J. W. Book, J. N. Moum, S. J. Warner, **B. Dzwonkowski**, S. Dykstra\*, I. Soto, and S. D. Howden (2019) Wind-Driven Mixing of the Mobile Bay Plume in the Northern Gulf of Mexico Shelf, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 6.

O'Brien, S. J., S. L. Dykstra\*, S. M. Parra, **B. Dzwonkowski**, J. W. Book, C. Pan, M. S. Dinniman, P. J. Fitzpatrick, Y. H. Lau, K. Cambazoglu, E. Hofmann, and J. D. Wiggert (2019) Suspended Sediment Transport in Mississippi Bight During Two Cold Front Events in Spring 2016, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 6.

Howden, S., L. Hode, M. Cambazoglu, J. Wiggert, K. Martin, M. Dinniman, **B. Dzwonkowski**, and S. Parra (2019) Connectivity of the Gulf of Mexico to the Mississippi Sound, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 6.

**Dzwonkowski, B.**, Coogan\*, J. J. Letrher, B. Webb, R. Nelson, and J. Cebrian (2018) Salt intrusion in Fowl River, Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Nov 28.

Lehrter, J., M. Fung, **Dzwonkowski, B.**, and B. Walton (2018) Characterization of marsh spit hydrographic variability in relation to marsh vegetation type, Alabama-Mississippi Bays and Bayous Symposium, Mobile, AL, Nov 28.

Reager, J.T., S. Fournier, **B. Dzwonkowski**, J. Vazquez, and C. David (2018) SMAP observations to trace the life cycle of hydrologic extreme events from land to ocean, NASA SUSMAP PI meeting, Cambridge, MA Oct 19-20

**Dzwonkowski, B.**, S. Fournier, J. Coogan\*, J.T. Reager, S. Milroy, K. Park, A. Greer, A. Shiller, I. Soto, S.L. Dykstra, and V. Sanial (2018) Tracking the sea surface salinity and dissolved oxygen in the Mississippi Bight: Is the system primed for hypoxia?, Physics of Estuaries and Coastal Seas, Galveston, TX, Oct 19.

Dykstra\*, S. and **B. Dzwonkowski** (2018) Impacts of an inland basin on an estuarine system in coastal Alabama, Physics of Estuaries and Coastal Seas, Galveston, TX, Oct 18.

- Parra, S.M., J.W. Book, J.N. Moum, S. Warner, **B. Dzwonkowski** and S. Dykstra\* (2017) Mobile Bay plume mixing in the inner shelf, Physics of Estuaries and Coastal Seas, Galveston, TX, Oct 16.
- Coogan\*, J. and **B. Dzwonkowski** (2018) Observations of stratification and wind mixing in a microtidal estuary, Mobile Bay, AL, Physics of Estuaries and Coastal Seas, Galveston, TX, Oct 14.
- Coogan\*, J. and **B. Dzwonkowski** (2018) Role of wind forcing on estuarine length and circulation in a river-dominated, microtidal estuary, Mobile Bay, AL Alabama Water Resources Conference, Orange Beach, AL, Sep 7.
- Beebe, D., R. Carmichael, J. Cebrian, M. Cook, **B. Dzwonkowski**, J. Kudulis, J. Lehrter, S. Smallegan, T. Thibaut, B. Vittor, and B. Webb (2018) Fowl River Marsh Study: If You Try Sometimes You Just Might Find You Get What You Need, Alabama Water Resources Conference Orange Beach, FL, Sep 6.
- Dykstra\*, S. and **B. Dzwonkowski** (2018) Role of a fluvial flood wave in the coastal region of Alabama, Alabama Water Resources Conference, Orange Beach, AL, Sep 6.
- Vazquez-Cuervo, J., S. Fournier, **B. Dzwonkowski**, and J.T. Reager (2018) Intercomparison of error characteristics across remote sensing products in the Gulf of Mexico, a river-influenced region, Ocean Salinity Science Team Meeting, Santa Rosa, CA. Aug 27-29.
- Collini, R. and **B. Dzwonkowski** (2018) Displaying TSS and turbidity on [www.mymobilebay.com](http://www.mymobilebay.com), Science Advisory Committee Meeting, Mobile, AL, May 15.
- Collini, R. and **B. Dzwonkowski**, (2018) Displaying TSS and turbidity on [www.mymobilebay.com](http://www.mymobilebay.com), Project Implementation Committee Meeting, Mobile, AL, May 3.
- Byron, D., Robertson, A., Heck, K., **Dzwonkowski, B.**, Carmichael, R., Valentine, J. (2018) Oil Spill Research at the Dauphin Island Sea Lab. NOAA Science of Oil Spills (SOS) Workshop, NOAA Office of Response & Restoration (OR&R) and Emergency Response Division (ERD), Dauphin Island, Alabama, United States. March 26-29.
- Dykstra\*, S.L. and **B. Dzwonkowski** (2018) A shifting tidal flood limit in the coastal environment , USA Graduate Student Research Forum, Mobile, AL, Mar 12.
- Coogan\*, J. and **B. Dzwonkowski** (2018) Investigating the response of a shallow, microtidal system to coastal upwelling condition, Mobile Bay, USA Graduate Student Research Forum, Mobile, AL, Mar 12.
- Dykstra\*, S.L. and **B. Dzwonkowski** (2018) Freshwater discharge in coastal Alabama, Gulf of Mexico Graduate Student Symposium, Mobile, AL, Mar 2.

Coogan\*, J. and **B. Dzwonkowski** (2018) Investigating the response of a shallow, microtidal system to coastal upwelling condition, Mobile Bay, Gulf of Mexico Graduate Student Symposium, Mobile, AL, Mar 2.

Coogan\*, J. and **B. Dzwonkowski** (2018) Investigating the response of a shallow, microtidal system to coastal upwelling condition, Mobile Bay, E44A-0320, AGU Ocean Science Conference, Portland, OR, Feb 15.

Wiggert, J., C. Pan, M. Dinniman, Y. Lau, P. Fitzpatrick, S. J O'Brien, C. Bouchard, L. Quas, T. Miles, M. Cambazoglu, S. Dykstra\*, **B. Dzwonkowski**, G. Jacobs, I. Church, and E. E Hofmann (2018) Controls on Planktonic Dynamics in the Mississippi Bight by estuarine-shelf exchange processes, CD33B-08, AGU Ocean Science Conference, Portland, OR Feb 14.

**Dzwonkowski, B.**, S. Fournier, K. Park, and J.T. Reager (2018) Wrong Side of the River: A tale of water column stability and the role of velocity shear on shelf stratification in the Mississippi Bight, the forgotten region of freshwater influence, E34A-0281, AGU Ocean Conference, Portland, OR Feb 14.

Rhee\*, J., J.W. Krause, and B. Dzwonkowski (2018) Nutrient flux and physical stability drive phytoplankton biomass variability along the Alabama Shelf, EP14A-0750, AGU Ocean Conference, Portland, OR Feb 14.

**Dzwonkowski, B.**, S. Fournier, K. Park, and J.T. Reager (2018) Water column stability and the role of velocity shear on shelf stratification in the Mississippi Bight, the forgotten region of freshwater influence, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 8.

Dykstra\*, S. and **B. Dzwonkowski** (2018) The role of freshwater discharge on coastal transport, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 8.

Cambazoglu, M.K., C. Pan, S. Parra, I. Soto Ramos, S. Howden, J. Wiggert, J. Book, G. Jacobs, R. Arnone, and **B. Dzwonkowski** (2018) Seasonality of across-shelf pathway patterns in Mississippi Bight. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 7.

Pan, C., M. Dinniman, P. Fitzpatrick, Y. Lau, M.K. Cambazoglu, S.M. Parra, E. Hofmann, **B. Dzwonkowski**, S. Warner, S. O'Brien, S. Dykstra, and J. Wiggert (2017) Exploring the circulation dynamics of Mississippi Sound and Bight using the CONCORDE synthesis model, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 7.

Soto, I.M., M.K. Cambazoglu, A.D. Boyette, K. Broussard, D. Sheehan, S.D. Howden, A.M. Shiller, **B. Dzwonkowski**, L. Hode, G.A. Jacobs, P.J. Fitzpatrick, R.A. Arnone, P. Mickle, G. A. Jacobs, K. Cressman (2018) Advection of *Karenia brevis* blooms from the

Florida Panhandle towards the Mississippi Bight and Sound, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 6.

Book, J., S. Parra, **B. Dzwonkowski**, S. Dykstra\*, S. Warner, J. Moum, and S. Howden (2018) Temporal varying spatial patterns in Mobile Bay outflow. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, Feb 6.

Ashby, S., **B. Dzwonkowski**, S. Howden, J. Lopez, S. Milroy, and R. Collini (2018) Mississippi/Alabama Working Group Update, 7<sup>th</sup> Annual NOAA/NGI Hypoxia Research Coordination Workshop (CHAMP), Mississippi State University Science and Technology Center, Stennis Space Center, MS, Jan 9.

Pan, C., M. Dinniman, P. Fitzpatrick, Y. Lau, M.K. Cambazoglu, S.M. Parra, E. Hofmann, **B. Dzwonkowski**, S. Warner, S. O'Brien, S. Dykstra\*, and J. Wiggert (2017) Exploring the circulation dynamics of Mississippi Sound and Bight using the CONCORDE synthesis model, AGU Fall Meeting, New Orleans, Dec. 13.

Wiggert, J., C. Pan, M. Dinniman, Y. Lau, P. Fitzpatrick, S. O'Brien, C. Bouchard, L. Quas, T. Miles, M. K. Cambazoglu, S. Dykstra\*, **B. Dzwonkowski**, G. Jacobs, I. Church, and E. Hofmann (2017) Impacts of suspended Sediment and Estuarine-Shelf Exchange Pathways on Shelf Ecosystem Dynamics in the Northern Gulf of Mexico, AGU Fall Meeting, Dec 13.

Dykstra\*, S.L. and B. Dzwonkowski (2017) Spatial shifts in tidal-fluvial environments, AGU Fall Meeting, New Orleans, LA, Dec 13.

Parra, S.M., J.W. Book, J.N. Moum, S. Warner, and B. Dzwonkowski (2017) Mobile Bay river plume mixing in the inner shelf, AGU Fall Meeting, New Orleans, LA, Dec 12.

Reager, J.T., S. Fournier, **B. Dzwonkowski**, J. Vazquez, and C. David (2017), SMAP observations to trace the life cycle of hydrologic extreme events from land to ocean, NASA SUSMAP PI meeting, Cambridge, MA Oct 19-20

Coogan, J.\* and **B. Dzwonkowski** (2017) Role of wind forcing on estuarine length and circulation in a river-dominated, microtidal estuary, Mobile Bay, AL, 4<sup>th</sup> Annual Young Coastal Scientists and Engineers Conference, Dauphin Island, AL, Aug 21.

Dykstra, S.\* and **B. Dzwonkowski** (2017) Spatial variability of tides due to discharge, 4<sup>th</sup> Annual Young Coastal Scientists and Engineers Conference, Dauphin Island, AL, Aug 21.

Collini R., **B. Dzwonkowski**, and H. King (2017) Real-time observing in coastal Alabama, Annual Mississippi Hypoxia Working Group Meeting, Long Beach, MS , Aug 12.

Rhee\*, J., J.W. Krause, and B. Dzwonkowski (2017) Nutrient flux and physical stability drive phytoplankton biomass variability along the Alabama Shelf, Dauphin Island Sea Lab NSF REU Poster Session, Dauphin Island, AL Aug 4.

Coogan\*, J. and **B. Dzwonkowski** (2017) Role of wind forcing on estuarine length and circulation in a river-dominated, microtidal estuary, Mobile Bay, AL, Gordon Research Conference on Coastal Ocean Dynamics, Biddeford, ME, Jun 14.

**Dzwonkowski, B.**, and S. Dykstra\* (2017) Observations of internal waves in the coastal waters of Alabama, Gordon Research Conference on Coastal Ocean Dynamics, Biddeford, ME, Jun 12.

Coogan\*, J. and **B. Dzwonkowski** (2017), Role of wind forcing on estuarine length and circulation in a river-dominated, microtidal estuary, Mobile Bay, AL, Gordon Research Seminar on Coastal Ocean Dynamics, Biddeford, ME, Jun 10. (**Invited Student Presentation**)

Tzeng, M., **B. Dzwonkowski**, and K. Park (2017) Data Processing for a Small-Scale Long-Term Coastal Ocean Observing System Near Mobile Bay, Alabama: A Geoscience of the Future. NSF EarthCube 2017 All Hands Meeting, Seattle, WA, Jun 8. 2017.

Carmichael, R.H., Dillon, K., J. Caffrey, **B. Dzwonkowski**, S. Holcomb, T. Berry, G. Baine, J. Sleek, R. Capps, J. G. Hall, E. Hieb, P. Dimens, E. D. Condon, Y. Li, J. Millwood, K. Cressman, C. Newman, M. Woodrey, W. Underwood (2017) Sedimentary records of recurrent phosphate spills to a coastal estuary, Alabama Academy Sciences 94<sup>th</sup> Annual Meeting, Mobile, AL (Feb 22-24).

Wiggert, J., M. Dinniman, P. Fitzpatrick, Y. Lau, C. Pan, M.K. Cambazoglu, G. Jacobs, **B. Dzwonkowski** and E. Hofmann (2017) Circulation, transport, and exchange variability in the northern Gulf of Mexico continental shelf, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, New Orleans, LA, Feb 10.

Dykstra\*, S., **B. Dzwonkowski**, S. O'Brien, and Grant Lockridge(2017) Seasonal Variability in Ebb Plume Hydrodynamics, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, New Orleans, LA, Feb 10.

O'Brien,S., S. Dykstra\*, L. Quas, **B. Dzwonkowski**, S. Howden, D. Wallace, I. Church, O. Schofield, T. Miles, and J. Wiggert (2017) Characterizing spatial and temporal changes of the suspended particulate matter in the Mississippi Sound and Mississippi Bight, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, New Orleans, LA, Feb 9.

**Dzwonkowski, B.**, and S. Dykstra\* (2017) Observations of internal waves in the coastal waters of Alabama, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, New Orleans, LA, Feb 9.

- Dzwonkowski, B.**, A.T. Greer, C. Briseno-Aveno, J. Krause, D. Joung, I. Soto Ramos, F. Hernandez, A. Deary, J. Wiggert, P. Fitzpatrick, S. O'Brien, S. Dykstra\*, Y. Lau, M.K. Cambazoglu, G. Lockridge, S. Howden, A.M. Shiller, and W.M. Graham (2017) Influence of estuarine-exchange on the coupled bio-physical water column structure during the fall season on the Alabama shelf, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, New Orleans, LA, Feb 9.
- Cambazoglu, M. K., I.M. Soto Ramos, S.D. Howden, B. Dzwonkowski, P. Fitzpatrick, and R.A. Arnone (2016) Inflow of saline offshore waters into the Mississippi Sound and Mobile Bay in October 2015 Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Nov 30.
- Dillon, K., J. Caffrey, R. H. Carmichael, B. Dzwonkowski, K. Cressman, Mark Woodrey, and W. Underwood (2016) Effects of recurrent phosphate spills to a coastal estuary. Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Dec 1.
- Dzwonkowski, B.**, A. Robertson, G. Lockridge and B. Walton (2016) Red tide bloom event in coastal Alabama: A physical perspective, Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Dec 1.
- Lockridge, G. and B. Dzwonkowski (2016) Development of a low cost Lagrangian-style drifter with Arduino controlled CTD and GPS sensors for environmental monitoring applications. Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Nov 30.
- Robertson, A., L. Novoveska, K. Baltzer, B. Dzwonkowski, and W. Walton (2016) Alabama harmful algal blooms: Crossing the boundaries of freshwater, estuarine, and coastal waters. Alabama-Mississippi Bays and Bayous Symposium, Biloxi, MS, Nov 30.
- Cressman, K., J. Caffrey, R. H. Carmichael, K. Dillon, **B. Dzwonkowski**, C. Griffin, M. Posten, and M. Woodrey (2016) What happens when phosphate spills into an estuary? Collaboratively examining phosphogypsum inputs into Grand Bay NERR to plan for the future. NERRS/NERRA annual meeting, Williamsburg, VA, Nov 13-18.
- Deary, A. L. , A. M. Hoover\*, **B. Dzwonkowski**, H. Box, A. Shiller, F. J. Hernandez, A. Weidemann, and W. M. Graham, (2016) Hydrographic characterization of a river plume in the northern Gulf of Mexico during an anomalous winter discharge event, Annual Larval Fish Conference, Fisheries Society of America, Solomons, MD, Jun.
- Hoover, A. M. \*, A. L. Deary, **B. Dzwonkowski**, H. Box, A. Shiller, F. J. Hernandez, A. Weidemann, and W. M. Graham, (2016) Assessment of larval fish diet and condition during an atypical winter freshwater-discharge event in the northern Gulf of Mexico, Annual Larval Fish Conference, Fisheries Society of America, Solomons, MD, Jun.

- Dillon, K., J. Caffrey, R. H. Carmichael, **B. Dzwonkowski**, S. Holcomb, T. Berry, G. Baine, J. Sleek, R. Capps, J. G. Hall, E. Hieb, P. Dimens, E. D. Condon, Y. Li, J. Millwood, K. Cressman, C. Newman, M. Woodrey, W. Underwood (2016) Water Quality in Bangs Lake: effects of recurrent phosphate spills to a coastal estuary: Year 2, Mississippi Water Resources Conference, Mississippi Water Resources Institute, Jackson, MS, April 5.
- Dykstra\*, S. L., Dzwonkowski, B., Lockridge, G.\*, O'Brien, S. J., Wiggert, J. (2016) Drifter Observations of an Ebb Tidal Plume Dispersion and Circulation in a Critical Estuary-Shelf Environment, Main Pass, Mobile, AL. University of South Alabama Graduate Research Forum, Mobile, AL, Mar.
- Dykstra\*, S. L., Dzwonkowski, B., Lockridge, G., O'Brien, S. J., Wiggert, J. (2016) Lagrangian Observations of a Tidal Plume through an Ebb Tidal Delta. Gulf of Mexico Graduate Student Symposium, Ocean Springs, MS, Mar.
- Coogan\*, J., and **B. Dzwonkowski** (2016) Investigating the Response of a Density Field to variable forcing conditions in a river-dominated, micro-tidal estuary, Mobile Bay, AL, Gulf of Mexico Graduate Student Symposium, Ocean Springs, MS, Mar.
- Robertson, A., L. Novoveska, W. Walton, and **B. Dzwonkowski** (2016) Harmful Algal Blooms in the northern Gulf of Mexico: *Karenia* 2015-2016. Science Advisory Council of the Mobile Bay National Estuary Program. Mobile, AL, Feb 24.
- Tzeng, M., **B. Dzwonkowski**, and K. Park (2016) Data Processing for a small-scale long-term coastal ocean observing system near Mobile Bay, Alabama, American Geophysical Union Ocean Science Meeting, New Orleans, LA, Feb 23.
- Dzwonkowski, B.**, and K. Park (2016) Impact of river discharge on the hydrography and circulation on the inner shelf, American Geophysical Union Ocean Science Meeting, New Orleans, LA, Feb 22.
- Dykstra\*, S., **B. Dzwonkowski**, G. Lockridge, S. O'Brien, and J. Wiggert (2016) Lagrangian observations of an ebb tidal plume under low discharge conditions, Main Pass, Mobile Bay, AL, American Geophysical Union Ocean Science Meeting, New Orleans, LA, Feb 22.
- O'Brien, S., P. Fitzpatrick, **B. Dzwonkowski**, D. Wallace, I. Church, and J. Wiggert (2016) Multivariate analysis of the influences of oceanic and meteorological processes on suspended particulate matter distributions on Mississippi coastal waters, American Geophysical Union Ocean Science Meeting, New Orleans, LA, Feb 22.
- Coogan\*, J., and **B. Dzwonkowski** (2016) Investigating the Response of a Density Field to variable forcing conditions in a river-dominated, micro-tidal estuary, Mobile Bay, AL, American Geophysical Union Ocean Science Meeting, New Orleans, LA, Feb 24.

- Dzwonkowski, B.**, and K. Park (2016) Impact of river discharge on the hydrography and circulation on the inner shelf, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, Tampa Bay, FL, Feb 2.
- Dykstra\*, S., **B. Dzwonkowski**, G. Lockridge, S. O'Brien, and J. Wiggert (2016) Lagrangian observations of an ebb tidal plume under low discharge conditions, Main Pass, Mobile Bay, AL, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, Tampa Bay, FL, Feb 2.
- O'Brien, S., P. Fitzpatrick, **B. Dzwonkowski**, D. Wallace, I. Church, and J. Wiggert (2016) Multivariate analysis of the influences of oceanic and meteorological processes on suspended particulate matter distributions on Mississippi coastal waters, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative, Tampa Bay, FL, Feb 3.
- Tzeng, M., **B. Dzwonkowski**, and K. Park (2015) Data Processing for a small-scale long-term coastal ocean observing system near Mobile Bay, Alabama, Annual Fall Meeting, American Geophysical Union, San Francisco, CA, Dec 18
- Baltzer, K., A. Robertson, A. Kane, T. Smith, and **B. Dzwonkowski** (2015) Investigating accumulation rates and sub-lethal behavioral effects of Caribbean ciguatoxin (C-CTX) on zebrafish (*Danio rerio*). 8<sup>th</sup> U.S. Harmful Algae Symposium, Long Beach, CA. Nov 14-18.
- Dzwonkowski, B.**, K. Park, and R. Collini (2015) Characterizing the structure and evolution of the Mobile Bay discharge plume during a flood event, Coastal and Estuarine Research Federation Bi-Annual Conference, Portland, OR, Nov 11.
- Carmichael, R.H., Dillon, K., J. Caffrey, **B. Dzwonkowski**, S. Holcomb, T. Berry, G. Baine, J. Sleek, R. Capps, J. G. Hall, E. Hieb, P. Dimens, E. D. Condon, Y. Li, J. Millwood, K. Cressman, C. Newman, M. Woodrey, W. Underwood (2015) Sedimentary records of recurrent phosphate spills to a coastal estuary, Coastal and Estuarine Research Federation (CERF) Biennial Conference, Portland, OR, Nov.
- Dykstra\*, S., **B. Dzwonkowski**, and G. Lockridge (2015) Hydrodynamic transport in a shallow, micro-tidal salt marsh system, Bangs Lake, MS, Annual Meeting, Geological Society of America, Baltimore, Maryland, Nov 2.
- Dzwonkowski, B.**, K. Park, and R. Collini (2015) The coupled estuarine-shelf response of a river-dominated system during the transition from low to high discharge, Oil Spill and Ecosystem Science Conference, Gulf of Mexico Research Initiative Houston, TX, Feb 18.



**Dzwonkowski, B.,** N. Pettigrew, and S. Knapp\* (2014) Spatial and temporal variability in the along-channel velocity of a weakly stratified estuary, Broad Sound, Casco Bay, Maine, American Geophysical Union Fall Meeting, San Francisco, CA, Dec 16.

Knapp\*, S., **Dzwonkowski, B.,** and N. Pettigrew (2014) Relationships between wind forcing, stratification, and the vertical structure of the along-channel velocity at synoptic to interannual timescales in Penobscot Bay, ME, Annual Fall Meeting, American Geophysical Union, San Francisco, CA, Dec 15.

**Dzwonkowski, B.,** K. Park, and S. Howden (2014) Evolution and fate of a Mobile Bay discharge plume, Alabama-Mississippi Bays and Bayous Symposium, Mobile, AL, Dec 2.

Knapp\*, S., **Dzwonkowski, B.,** and N. Pettigrew (2014) Wind forcing, stratification, and along-channel vertical velocity structure in Penobscot Bay at synoptic to interannual timescales. Graduate Student Symposium, University of Maine, Darling Marine Center, Walpole, ME, May 12-13.

**Dzwonkowski, B.,** K. Park, Lee, J., B. Webb, and A. Valle-Levinson, (2013) Spatial variability in the spring seasonal velocity structure on a river-influenced inner shelf in coastal Alabama, Gordon Research Conference on Coastal Ocean Circulation Meeting, Biddeford, ME, Jun 9-14.

**Dzwonkowski, B.,** K. Park, Lee, J., B. Webb, and A. Valle-Levinson, (2013) Spring seasonal velocity structure on a river-influenced inner shelf: where is the coastal current?, Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting, New Orleans, LA, Feb 17-22.

Carmichael, R.H., R.N. Crim; **B. Dzwonkowski,** K. Park, M.N. Taylor and H.K. Patterson, (2013), The tropic importance of land-derived organic matter in a freshwater dominated Northern Gulf of Mexico Estuary, Aquatic Sciences Meeting, Association for the Sciences of Limnology and Oceanography, New Orleans, LA, Feb 17-22.

**Dzwonkowski, B.,** Park, K. (Presenter), and Jiang, L., (2013) Across-shelf current and transport on a coastal shelf directly influenced by estuarine outflow. Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA, Jan 21-23.

Mortazavi B., B. Wilson, J. Chanton, K. Eller, F. Dong, D.S. Baer, M. Gupta, and **B. Dzwonkowski** (2012) High frequency measurements of methane concentrations and carbon isotopes at a marsh and landfill, Annual Fall Meeting, American Geophysical Union, San Francisco, CA, Dec 3-7.

**Dzwonkowski, B.,** Park, K., and Jiang, L., (2012) Across-shelf surface transport and velocity structure on the Alabama shelf, American Geophysical Union Ocean Science Meeting, Salt Lake City, UT, 21 Feb.

Ross, J.L., Webb, B.M., **B. Dzwonkowski**, Park, K., and Valle-Levinson, A. (2011) Lagrangian observations over a region influenced by the Mobile Bay outflow plume. 21<sup>st</sup> Biennial Conference of the Coastal and Estuarine Research Federation, Daytona Beach, FL, 6-10 Nov.

**Dzwonkowski, B.**, and Park, K., (2011) Subtidal circulation on the Alabama shelf during the Deepwater Horizon oil spill, National Science and Technology Council's Joint Subcommittee on Ocean Science and Technology Deep water Horizon Oil Spill Principal Investigator Conference, St. Petersburg, FL, 5 Oct.

**Dzwonkowski, B.**, Park, K., and Jiang, L., (2011) Across-shelf surface transport and velocity structure on a coastal shelf directly influenced by estuarine outflow. Northern Gulf Institute Conference, Mobile, AL, 18 May.

**Dzwonkowski, B.**, Park, K. (Presenter), and Jiang, L., (2011) Across-shelf surface transport and velocity structure on a coastal shelf directly influenced by estuarine outflow. In: The 16th Pacific-Asian Marginal Seas Meeting, International Council for Science, Taipei, Taiwan, 1 Apr.

**Dzwonkowski, B.**, Carassou, L., Drymon, M., Park, K., Hernandez, F.J., Graham, W.M., and Powers, S.P. (2011) Impact of fresh water variability on physical and biological aspects of the marine system on the northeastern Gulf of Mexico. American Society of Limnology and Oceanography Aquatic Science Conference, San Juan, PR, Feb.

**Dzwonkowski, B.**, Park, K., Ha, H.K., Graham, W.M., Hernandez, F.J., and Powers, S.P. (2010) The influence of Mobile Bay on the hydrographic variability of the inner Alabama shelf, Alabama-Mississippi Bays and Bayous Symposium, Mobile, AL, Dec

Carassou, L., **Dzwonkowski, B.**, Hernandez, F., Park, K., and Powers, S. (2010) Climatic and environmental Controls of fish recruitment in coastal waters dominated by riverine processes, Alabama-Mississippi Bays and Bayous Symposium, Mobile, AL, Dec

Drymon, J.M., Powers, S.P., Dindo, J., **Dzwonkowski, B.**, and Driggers, W.B. (2010) Correspondence between the distribution of some shark species and primary productivity in the Gulf of Mexico across multiple scales. International Conference on Environmental Systems. Nantes, FR, Sep.

Carassou, L., Hernandez, F., **Dzwonkowski, B.**, Park, K., and Powers, S. (2010) Relationships between climatic conditions and abundances of juvenile winter-spawned fishes during the last 25 years in Northern Gulf of Mexico, Annual Larval Fish Conference, Fisheries Society of America, Santa Fe, NM, Jun.

**Dzwonkowski, B.**, Park, K., and Ha, H.K. (2010). Seasonal currents on the inner Alabama shelf, Northern Gulf Institute Conference, Mobile, AL, May.

- Dzwonkowski, B.,** Park, K., and Ha, H.K. (2010). Hydrographic variability on a coastal shelf directly impacted by estuarine discharge, American Geophysical Union Ocean Science Meeting, Portland, OR, Feb.
- Dzwonkowski, B.** (2009) Synoptic observations and analyses of surface current measurements from HF radar in the central Mid-Atlantic Bight, Dauphin Island Sea Lab Seminar Series, Dauphin Island, AL, May.
- Wong, K.-C., **Dzwonkowski, B.**, and Ullman, W.J. (2009) Variability of sea level and volume flux in the Murderkill River estuary, Delaware Estuary Science and Environmental Summit, Cape May, NJ, Jan.
- Dzwonkowski, B.** (2008) Tracking flow features in the coastal zone using ocean color and high frequency radar data, 3<sup>rd</sup> Annual NASA Space Grant Research Symposium, Newark, DE, Nov.
- Dzwonkowski, B.** (2008) The application of HF radar and ocean color data to study surface circulation in the coastal zone, IEEE/OES Chile-US Workshop on Ocean Observation Systems, Vina del Mar, Chile, Nov.
- Dzwonkowski, B.,** Kohut, J, Lipphardt B., and Yan, X.-H. (2008) Seasonal variability in the near surface circulation on the central Mid-Atlantic Bight shelf, Mid-Atlantic Bight Physical Oceanography and Meteorology Meeting, Woods Hole, MA, Sep.
- Dzwonkowski, B.,** Lipphardt B., Kohut, J, Yan, X.-H., and Garvine, R. (2008) Observations of surface layer sub-inertial across-shelf flows on the mid-shelf across-shelf flow of the central Mid-Atlantic Bight, American Geophysical Union Ocean Science Meeting, Orlando, FL, Mar.
- Dzwonkowski, B.** (2007) Signal or Noise: Examining relatively high frequency signals from oddly sampled and gappy data, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Dec.
- Dzwonkowski, B.,** Lipphardt B., Kohut, J, Yan, X.-H., and Garvine, R. (2007) Observations of mid-shelf across-shelf flow in the central Mid-Atlantic Bight, Physical Ocean Science and Engineering Seminar Series, Newark, DE, Nov.
- Dzwonkowski, B.,** Lipphardt B., Kohut, J, Yan, X.-H., and Garvine, R. (2007) Description of shelf across-shelf flow in the central Mid-Atlantic Bight, Mid-Atlantic Bight Physical Oceanography and Meteorology Meeting, New Brunswick, NJ, Oct.
- Dzwonkowski, B.** (2006) EOF analysis of sub-tidal surface currents in the MAB, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Nov

**Dzwonkowski, B., and Yan X.-H. (2006)** Analysis of inertial and sub-inertial surface currents from high frequency radar in the central mid-Atlantic bight. American Geophysical Union Ocean Science Meeting, Honolulu, HI, Feb.

Young-Heon Jo, Yan, X-H. and **Dzwonkowski, B. (2006)** Cell structures of sea surface divergent and convergent plumes (DP/CP) and ocean's response to DP/CP within West Pacific Warm Pool. (OS25C-08), American Geophysical Union Ocean Meeting, Honolulu, HI. Feb.

**Dzwonkowski, B. (2005)** Examination of high frequency radar surface current measurements in the Mid-Atlantic Bight, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Nov

**Dzwonkowski, B., and Yan, X.-H. (2004)** Tracking of a Chesapeake Bay estuarine outflow plume with satellite-based ocean color data, Ocean/Atmosphere/Remote Sensing Seminar Series, Newark, DE, Nov

**Dzwonkowski, B., and Yan X.-H. (2004)** Development and application of a neural network based ocean color algorithm in coastal waters. (OS41B-02) American Geophysical Union Ocean Science Meeting, Portland, OR, Jan.

**Dzwonkowski, B., and Yan X.-H. (2003)** Use of neural networks in coastal ocean color algorithm development. Coastal Zone Conference, Baltimore, MD, Jul.

## **Teaching Experience**

2024            Instructor, ENV 339, Climate Change (3 credit hours), University of South Alabama, Mobile, AL, 8/2024-12/2024

2024            Guest Instructor, MAS 134, Introduction to Marine Sciences, University of South Alabama, Mobile, AL, 10/14/2024 and 10/23/2024

2024            Guest Instructor, CAS 100, First Year Experience, University of South Alabama, Mobile, AL, 10/23/2024

2024            Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2024-5/2024

2023            Instructor, MAS 331, Fundamentals of Marine Science I (3 credit hours), University of South Alabama, Mobile, AL, 8/2023-12/2023

2023            Instructor, MAS 331 Lab, Fundamentals of Marine Science I (1 credit hours), University of South Alabama, Mobile, AL, 8/2023-12/2023

2023	Guest Instructor, CAS 100, First Year Experience, University of South Alabama, Mobile, AL, 09/21/2023
2023	Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2023-5/2023
2022	Guest Instructor, MAS 331, Fundamentals of Marine Science II, University of South Alabama, Mobile, AL, (Beach Lab) 11/12/2022
2022	Instructor, MAS 577, Coastal Processes (3 credit hours), University of South Alabama, Dauphin Island, AL, 8/2022-12/2022
2022	Co-developer, MAS 331 Lab, Fundamentals of Marine Science I, University of South Alabama, Mobile, AL, 8/2022-12/2022
2022	Guest Instructor, MAS 332, Marine Science II, University of South Alabama, Mobile, AL, 2/3/2022
2022	Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2022-5/2022
2021	Instructor, MAS 331, Fundamentals of Marine Science I (3 credit hours), University of South Alabama, Mobile, AL, 8/2021-12/2021
2021	Guest Instructor, MAS 578, Marine Technology Methods, University of South Alabama, Dauphin Island, AL, 03/03/2021
2021	Guest Instructor, MAS 134, Oceanography, University of South Alabama, Mobile, AL, 2/11/2021
2021	Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2021-5/2021
2020	Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2020-5/2020
2019	Instructor, MAS 331, Fundamentals of Marine Science I (3 credit hours), University of South Alabama, Mobile, AL, 8/2019-12/2019
2019	Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2019-5/2019
2019	Guest Instructor, OCN 101, Oceanography, Dauphin Island Sea Lab, Dauphin Island, AL, 6/20/2019

- 2019      Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2019-5/2019
- 2018      Instructor, MAS 577, Coastal Processes (3 credit hours), University of South Alabama, Dauphin Island, AL, 8/2018-12/2018
- 2018      Co-Instructor, MAS 583, Graduate Student Travel course (2 credit hours), University of South Alabama, Dauphin Island, AL, 8/2018-12/2018
- 2018      Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2018-5/2018
- 2018      Guest Instructor, MAS 134, Introduction to Marine Science, University of South Alabama, Dauphin Island, AL, 4/5/2018
- 2018      Guest Instructor, MAS 334, Marine Science II, University of South Alabama, Dauphin Island, AL, 4/5/2018
- 2017      Instructor, MAS 331, Marine Science (3 credit hours), University of South Alabama, Mobile, AL, 8/2017-12/2017
- 2017      Guest Instructor, MAS 134, Ocean Sciences (3 credit hours), University of South Alabama, Mobile, AL, 10/17/2016.
- 2017      Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2017-5/2017
- 2016      Instructor, MAS 510, Oceanography and Marine Biology (3 credit hours), University of South Alabama, Mobile, AL, 1/2016-5/2016
- 2016      Instructor, MAS 590/690, Marine Sciences Seminar (1 credit hour), University of South Alabama, Dauphin Island, AL, 1/2016-5/2016
- 2016      Instructor, MAS 694, Directed Studies (3 credit hours), University of South Alabama, Mobile, AL, 1/2016-5/2016
- 2016      Guest Instructor, MAS 134, Ocean Sciences (3 credit hours), University of South Alabama, Mobile, AL, 10/18/2016.
- 2016      Instructor, MAS 601, Physical Oceanography (4 credit hours), University of South Alabama, Dauphin Island, AL, 1/2016-5/2016
- 2016      Instructor, MAS 694, Directed Studies (3 credit hours), University of South Alabama, Mobile, AL, 1/2016-5/2016

- 2015 Instructor, MAS 331, Marine Science I (3 credit hours), University of South Alabama, Mobile, AL, 8/2015-12/2015
- 2015 Guest Instructor, MAS 590/690, Special Topics: Biological & Physical Interactions (3 credit hours), University of South Alabama, Dauphin Island Sea Lab, Dauphin Island, AL, 4/9/2015.
- 2014 Instructor, SMS 400, Capstone Advisor for Caroline Garrity (2 credit hours), University of Maine, Orono, ME, 1/2014-5/2014
- 2013 Co-Instructor, SMS 541, Physical Oceanography (3 credit hours), University of Maine, Orono, ME, 9/2013-12/2013
- 2013 Instructor, SMS 497, Independent Study Advisor (Lu Han, visiting undergraduate student from China): Surface currents in Gulf of Maine (1 credit hours), University of Maine, Orono, ME, 9/2013-12/2013
- 2013 Instructor, SMS 400, Senior Capstone Advisor for Caroline Garrity (2 credit hours), University of Maine, Orono, ME, 9/2013-12/2013
- 2013 Guest Instructor, SMS 491, Estuarine Oceanography (3 credit hours), University of Maine, Darling Marine Center, Walpole, ME, 5/16/2013.
- 2012 Co-Instructor, SMS 541, Physical Oceanography (3 credit hours), University of Maine, Orono, ME, 9-12/2012.
- 2012 Guest Instructor, SMS 302, Oceanography (3 credit hours), University of Maine, Orono, ME, 10/16-18/2012.
- 2012 Participating Instructor, SMS 599, Instrumentation Seminar (1 credit hours), University of Maine, Orono, ME, 9/17/2012.
- 2011 Instructor, Workshop on Data Analysis in Matlab, Dauphin Island Sea Lab, Dauphin Island, AL, 12/14/2011-12/15/2011
- 2010 Adjunct Instructor, OCP4002 Physical Oceanography (3 credit hours), University of West Florida, Pensacola, FL, 8/2010-12/2010.
- 2010 Guest Instructor, Physical-Biological Interactions in the Sea, University of South Alabama, Dauphin Island Sea Lab, Dauphin Island, AL, 2/10/2010
- 2008 Camp Instructor of Marine Science, State 4-H Camp, Camp Barnes, Sussex County, DE, 6/14/2008

- 2007 Teaching Assistant, General Oceanography (3 credit hours), College of Marine and Earth Studies, University of Delaware, Newark, DE, 8/2007-12/2007
- 1999 Teaching Certification in Mathematics, State of New Jersey Student Teacher, Kreps Middle School, East Windsor, NJ, 8/1999-12/1999
- 1998 Student Teacher, Neil Armstrong Middle School, Bristol Township, PA, 1/1999-5/1998

### **Current Graduate Students and Postdocs Supervised:**

Avavind Puzhankara, University of South Alabama (**PhD Advisor**, Fall 2022-Present)  
 Devanarayana Rao, University of South Alabama (**PhD Advisor**, Fall 2021-Present)  
 Harikrishnan Sreeshylam, University of South Alabama (**PhD Advisor**, Spring 2021- Present)

### **Current Graduate Student Committees**

Constance Hickman, University of South Alabama (Member of Masters Committee as of Fall 2024)

Nikolas Vollmuth, University of South Alabama (Member of Masters Committee as of Fall 2024)

Brandy Armstrong, University of South Mississippi, (Member of Dissertation Committee as of Fall 2022)

Azadeh Razavi Arab, University of South Mississippi, (Member of Dissertation Committee as of Spring 2022)

Matthew Hodanbosi, University of South Alabama (Member of Dissertation Committee as of Spring 2020)

### **Previous Postdocs, Graduate Students and Graduate Student Committees**

Zhilong Liu, University of South Alabama (**Postdoc Advisor**, Sep 2020- Aug 2023)

Laia Munoz, University of South Alabama, (Member of Dissertation Committee as of Fall 2022-2024)

Tyler Jacobs, University of South Alabama, (Member of Masters Committee, Graduated Spring 2024)



William Ballentine, University of South Alabama (Member of Dissertation Committee, Graduated Fall 2023)

William ‘Cy’ Clemo, University of South Alabama (Member of Dissertation Committee, Graduated Fall 2023)

Sean McQuagge, University of South Alabama (Member of Master Committee, Graduated Spring 2022)

Jeff Coogan, University of South Alabama (**Postdoc Advisor, May 2019-Feb 2020**)

Steve Dykstra (co-advised with K. Dorgan), University of South Alabama (**PhD Advisor as of 8/2015**)

- Awarded DISL/FDA Fellowship (2019-2020)
- Awarded Best Presentation – Young Coastal Scientists & Engineers Conference (2018)
- Selected as GoMRI Student Scholar (2017)

Jeff Coogan, University of South Alabama (**PhD Advisor, Graduated Spr 2019**)

- Shipp Award – Departmental honor for best Dissertation (2020)
- Award Best Presentation - Alabama Water Resources Conference (2018)
- Selected for Oral Presentation at Gordon Research Symposium (2017)

Uchenna Nwankwo, University of Southern Mississippi (Member of Dissertation Committee, Graduated Spring 2022)

Blair Morrison, University of South Alabama (Member of Masters Committee, Graduated Summer 2021)

Kelly Correia, University of South Alabama (Member of Dissertation Committee, Graduated 2021)

Sarah Cole, University of South Alabama (Member of thesis committee, Graduated Fall 2018)

### **Undergraduate Students Supervised:**

Clara Oxford, Eckerd College (NSF REU, Summer 2024 at DISL)

Josh Thrower, Coastal Community College (NSF REU, Summer 2022 at DISL)

Cadie Barnes, University of South Alabama (Directed Studies, Spring 2023)

William Smith, University of South Alabama, (Honor’s Project, Fall 2022-Summer 2023)

Rebecca Carwithen, University of Santa Cruz (NSF REU, Summer 2022 at DISL)

Cadie Barnes, University of South Alabama (Undergraduate Intern, Summer 2022)

Ciara Larence, University of Maine at Orono (NSF REU, Summer 2019 at DISL) – **Awarded ‘Best Presentation’ at Experience Wrap-up Poster Session**

Jenny Rhee, University of Louisiana at Lafayette (NSF REU, Summer 2017 at DISL, co-adviser with Jeff Krause) – **Co-Awarded ‘Best Presentation’ at Experience Wrap-up Poster Session**

Jenine Brideau, Piedmont University (NSF REU, Summer 2016 at DISL)

Guillermo Martin (Intern, Spring/Summer 2016, co-adviser with Cebrian)

Carolyn Garrity, University of Maine (Undergraduate capstone project, 2013)

Lu Han, University of Maine (Undergraduate independent study, Fall 2013)

Nathan Laspina, University of Maine (Undergraduate intern, Summer 2013)

Brett Stacy, Humboldt University (NSF REU, Summer 2012 at DISL)

Amanda Taylor, Coastal Carolina University (NSF REU, Summer 2010 at DISL)

### **High School Students Supervised:**

Philp Gill (Intern Summer 2023)

### **Editorial and Reviewer Services for Refereed Journals and Federal Agencies**

Associate Editor for: Gulf and Caribbean Research

Guest Editor for: Estuarine, Coastal, and Shelf Science Special Issue on Mixing and Transport in Estuarine and Coastal (2021)

Reviewer for: Aquatic Ecosystem Health & Management, Continental Shelf Research; Deep-Sea Research Part I; Environmental Protection Agency (EPA); Estuarine, Coastal, and Shelf Science; Estuaries and Coasts; Geophysical Research Letters, Journal of Coastal Research; Journal of Atmospheric Sciences, Journal of Geophysical Research – Oceans; Journal of Marine Systems; Journal of Physical Oceanography; Marine Ecology Progress Series; Marine Technology Society Journal; Nature Communications, Ocean Dynamics; Ocean Modeling; and National Science Foundation (NSF), MBRACE, and Scientific Reports.

### **Professional Service**

2024            Participant – Naval Oceanographic Office (NAVO) Visit, Stennis Space Center, MS (2024/12/03)

2024            Participant, Baykeeper/USACE Ship Channel Meeting, Mobile, AL. Oct 11

2024            Committee member – University South Alabama – College of Arts and Sciences– Graduate Curriculum Committee (Sep 2024 – Mar 2025)

2024            Committee member – University South Alabama – College of Arts and Sciences– Gender Studies Committee (Sep 2024 – Mar 2025)

- 2024 Panel member – University of South Alabama – Graduate Student Orientation – Provided a prospective on expectation for graduate students, Shellby Hall, Mobile, AL (2024/08/19)
- 2024 Committee member – University South Alabama– College of Arts and Sciences – –Commencement Committee (Aug 2024 – Jul 2025)
- 2024 Participant – University of South Alabama – Summer Undergraduate Research (SURF) program - “CV – see you” - Lead a breakout session for undergraduates students on CV building, Mobile, AL (2024/07/19)
- 2024 REU Mentoring, Brown-Bag Lunch Presentation – Work Life Balance, Dauphin Island, AL. (Jul 10)
- 2024 Committee member – University of South Alabama – Angelia and Steven Stokes Undergraduate Scholarship Award (2024/07/02)
- 2024 Committee member – University South Alabama – Faculty Senate Research and Creativity Activities Committee (Aug 2024 – Present)
- 2024 Participant - REU Mentor Training, DISL/USA, Mobile, AL. (2024/04/26)
- 2024 USA Faculty Senate - College of Arts and Sciences Representative (2024/03/01)
- 2024 Participant – University of South Alabama – Stokes School of Marine Science representative for The Naval Oceanographic Office (NAVO) recruitment meeting, USA Faculty Club, Mobile, AL (2024/03/01)
- 2024 Coordinator – SSoMES Graduate Student Recruitment Weekend (2024/01/19-2024/01/21)
- 2024 RCR Training Series, University of South Alabama  
 - Collaboration: Advantages and Risks (2024/01/18)  
 - Foreign Influence and Security (2024/08/29)
- 2023 USA Department Representative – USA Student Tour - Met with potential student (2023/11/20)
- 2023 Session Co-convenor – Biannual CERF Meeting – Session Title: Mixing and transport in estuaries and coastal systems (Nov 13-14)
- 2023 Participant – SOMES TNC collaboration session (2023/10/16)

- 2023 Committee member – University South Alabama – College of Arts and Sciences–  
Sabbatical Committee (Sep 2023 – Present)
- 2023 REU Mentoring, Brown-Bag Lunch Presentation – Work Life Balance, Dauphin  
Island, AL. (Jul 12)
- 2023 Committee member – University of South Alabama – Angelia and Steven Stokes  
Undergraduate Scholarship Award (2023/07/03)
- 2023 Participant, Mississippi Sound Habitat Focus Area (HFA) Meeting, Biloxi, MS  
June 6-7.
- 2023 Participant, NSF Physical Oceanography Review Panel, May 16-19.
- 2023 Support Service, AL DCNR via John Mareska – Provided ARCOS data as well as  
pro bono expertise on Red Drum fish kill (Apr 20-May 24)
- 2023 REU Mentor Training Part II: ADVANCEGeo – Bystander Intervention,  
DISL/USA, Mobile, AL. (2023/04/14)
- 2023 USA SSoMES Representative – USA Student Tour - Met with potential student –  
Allyce Lottt (2022/03/24)
- 2023 Participant – USA SACS Accretion Team – Lecturer at DISL (2023/03/21)
- 2022-2023 RCR Training Series, University of South Alabama  
- Maximizing Research Productivity and Facilitating Multiple Projects and/or  
Collaborations (11/10/2022)  
- Authorship, Publication Practices, and Preprints (01/19/2023)  
- Export Control Compliance (02/09/2023)
- 2023 Coordinator – SSoMES Graduate Student Recruitment Weekend (2023/01/21-  
2023/01/23)
- 2022 Committee member – University South Alabama – College of Arts and Sciences–  
Graduate Curriculum Committee (Sep 2022 – Mar 2023)
- 2022 Committee member – University South Alabama – College of Arts and Sciences–  
Gender Studies Committee - Mahan-Brando Fund (Sep 2022 – Mar 2023)
- 2022 USA Department Representative – DISL Student Tour - Met with potential  
student – Kamilia Sawosko (2022/08/19)

- 2022 Alabama Coastal Fisheries Association (ACFA), ARCOS Presentation, Mobile, AL (Aug 4)
- 2022 DISL DHP programs, Classroom Presentation (July 15)
- 2022 Committee member – University of South Alabama – Angelia and Steven Stokes Undergraduate Scholarship Award (2022/07/02)
- 2022 Contributor, AL DCNR via John Mareska - Gulf States Marine Fisheries Commission - Red Drum profile (Jun 11)
- 2022 USA Department Representative – DISL Student Tour - Met with potential student – Zachery Harper (2022/06/28)
- 2022 USA Department Representative – USA Student Tour - Met with potential student – Kira Higley (2022/04/18)
- 2022 Presenter, Dauphin Island Sea Lab Foundation Board Meeting, Mobile, AL. (Apr 13)
- 2022 REU Mentor Training Part II: DEI & Mentoring Underrepresented Students, DISL/USA, Dauphin Island, AL. (Mar 24)
- 2022 Diversity and Inclusion Training (“ADVANCEGeo Program” - <https://serc.carleton.edu/advancegeo/index.html>), DISL/USA, Dauphin Island, AL. (Mar 18)
- 2022 Session Co-chair – AGU/ASLO/TOS Ocean Sciences Meeting (Feb 28-Mar 4) – Session Title: Marine Climate Extremes: PART 2
- 2022 REU Mentor Training Part I: DEI & Mentoring Underrepresented Students, DISL/USA, Dauphin Island, AL. (Feb 22)
- 2022 Committee member – University South Alabama – Research and Scholarly Development Grants (RSDG) Committee (Sep 2022 – Mar 2023)
- 2022 Committee member – University South Alabama – Fisheries Ecologist Search (Dec 2021-Mar 2022)
- 2022 Committee member – University South Alabama – Summer Professional Development Awards Committee (Jan 2022 – Feb 2022)
- 2022 Coordinator – USA Graduate Student Recruitment Weekend (2022/12/29-30)

- 2021 Outstanding Student Presentation Awards(OSPA) Judge, AGU Fall Meeting, New Orleans, LA, Dec 13-17.
- 2021 USA Department Representative – USA Student Tour - Met with potential student – Lillie Arceman (2021/12/06)
- 2021 Participant – SOMES EOB Open house – Tour guide (2021/12/06)
- 2021 Participant – Takeover Tuesday -USA School of Marine and Environmental Sciences (2021/09/14)
- 2021-Present Committee Member – University of South Alabama- Assessment Committee (2021/09/07)
- 2021 Participant – University of South Alabama – MAS Graduate Student Orientation (2021/08/15)
- 2021 Participant – University of South Alabama – School of Marine Science representative for The Naval Oceanographic Office (NAVO) recruitment meeting, Stennis Space Center, MS (2021/07/13)
- 2021 Committee member – University of South Alabama – Angelia and Steven Stokes Undergraduate Scholarship Award (2021/07/02)
- 2021 Session Co-chair – AGU Fall Meeting (Dec 13-17) – Session Title: Mixing and Transport in Estuaries and Coastal Waters
- 2021 Session Co-chair – CERF Biannual Meeting(Nov 3-8) – Session Title: Mixing and Transport in Estuaries and Coastal Waters
- 2021 Participant – GCOOS semi-annual meeting (2021/05/18)
- 2021 RCR Training Series, University of South Alabama
- Security and Science
  - Fostering the Mentor-Mentee Relationship
  - Rigor and Reproducibility
  - Data Acquisition and Management
  -
- 2021 Committee member – University of South Alabama – Research Scientist Search (2021/01/01-2021/03/01)
- 2020-Present Program Coordinator – Marine Sciences MS and PhD Programs (2020/08)

- 2020 Research highlighted in NGI's Portal (Fall issue)  
<https://www.northerngulfinstitute.org/portal/view.php?s=122Portalhttps://www.northerngulfinstitute.org/portal/view.php?s=122>
- 2020 Committee Chair – Department Review – University of South Alabama (2020/09/30-2021/08/31)
- 2020 Tenure and Promotion Committee (Member) – Marine Science Department (Aug 2020-Present)
- 2020 -Present Curriculum Committee (Chair) – Marine Science Department (Aug 2020-Present)
- 2020 -Present Graduate Coordinator – Marine Science Department (Aug 2020-Present)
- 2020 Prestation for DISL “World Ocean Day” Celebration (Jun 8)  
<https://youtu.be/NJplhRFVmQc>
- 2020 Participant, Alabama Deep-Sea Fishing Rodeo Donation Reception (Mar 3)
- 2020 Committee member – University South Alabama – Summer Professional Development Awards Committee (Sep 2019 – Feb 2020)
- 2019 Participant, NASA Ocean Salinity Science Review Panel, Crystal City, VA. Dec 2-5.
- 2019 Judge, Student Presentations, CERF Meeting, Mobile, AL, Nov 3-7.
- 2019 Member, Bottlenose Dolphin Unusual Mortality Event (UME) Environmental Investigative Team, Northeast Gulf of Mexico (Jul 2019-present)
- 2019 Diversity and Inclusion Training (“It Starts with a Conversation: Faculty and Diversity and Inclusion Training”), DISL/USA, Mobile, AL. (Spring)
- 2019 Attended Army Corps of Engineers events – Mobile Harbor modification (May 10)
- 2019 Attended Army Corps of Engineers events – Mobile Harbor modification – Oyster Focus Group Meeting (Jan 10)
- 2019 Coordinator - Dauphin Island Sea Lab Seminar Series – Spring 2019
- 2019 Committee member - DISL Vessels
- 2019 Committee member – University South Alabama – Biological Oceanographer Search

- 2018 Skimmer article ‘What could cause the Mississippi Bight to become hypoxic’ – Nov issue (<https://skimmer.disl.org/what-could-cause-the-mississippi-bight-to-become-hypoxic/>)
- 2018 Presented a ‘Board Walk Talk’, Dauphin Island Estuarium (Oct 3)
- 2018 Presentation for DISL DHP programs (Jun 11)
- 2018 Participated in Discovery Day at Dauphin Island Sea Lab (Apr 9)
- 2018 Judge, student presentation - AGU/ASLO/TOS Ocean Science Meeting (Feb 12-16)
- 2018 Co-Lead MS/AL region, NOAA/NGI 7<sup>th</sup> Annual Coastal Hypoxia Assessment and Monitoring Program (CHAMP) meeting (Jan 9-10)
- 2017 Outstanding Student Paper Awards Co-coordinators - AGU Fall Meeting (Dec 11-15)
- 2016 Mississippi-Alabama Sea Grant Bay and Bayous Symposium – Water quality session chair (Nov 30 – Dec 1)
- 2016 Participated meeting with Dr. Martin Posey for program review (Nov 10)
- 2016 USA Day (Fall Recruitment), Marine Sciences Departmental Representative (Oct 15)
- 2016 CONCORDE Mentoring workshop (Panelist) – paper writing (Aug 17)
- 2016 Prepared drifters for DISL DHP programs (Jun 22)
- 2016 Presentation for DISL DHP programs (Jun 21)
- 2016 CONCORDE mentoring program, Panelist for paper writing workshop (Aug 17)
- 2016 DISL DHP programs, Classroom Presentation (Jun 21)
- 2016 Oil Spill and Ecosystem Science Conference, Session Co-chair (as of May)
- 2016 Panelist for "Dispatches from the Gulf" film premiere at Gulf Quest National Maritime Museum of the Gulf of Mexico (April 7)
- 2016 Mississippi Alabama Sea Grant Bays and Bayous Symposium: Session Chair (as of March 22)



- 2015      Selected as a participant for the ‘Influence of the Mississippi River and its delta on the ecology of the Gulf of Mexico’ working group (NOAA RESTORE Act Science Program) (Nov)
- 2015      Field work at Bangs Lake, Grand Bay, MS (Jun 29-Jul 1)
- 2015      DISL webpage post: <http://www.disl.org/news/article/dztidalintrusion> (Jun 4)
- 2015      Attend Mobile Bay National Estuary Science Advisory Committee meeting, Mobile, AL (June 2)
- 2015      Participated in Discovery Day at Dauphin Island Sea Lab (Apr 11)
- 2015      Attend Mobile Bay National Estuary Science Advisory Committee meeting, Mobile, AL (Mar 3)
- 2015      Participated in Center for Environmental Resiliency Workshop (Jan 9)
- 2015      Participated in USA Faculty Development Day (Jan 6)
- 2015      Voting member of the Mobile Bay National Estuary Science Advisory Committee (Jan)
- 2014      Outstanding Student Paper Award (OSPA) Judge AGU Fall Meeting (Dec 15-19)
- 2014      Presentation for Gulf of Mexico Coastal Ocean Observing System (GCOOS) webinar (Oct 27).
- 2014      Attend Mobile Bay National Estuary Science Advisory Committee meeting, Mobile, AL (Oct 21)
- 2014      Attend public meeting by Gulf Coast Ecosystem Restoration Council of RESTORE Act, Daphne, AL (Oct 9)
- 2014      Co-coordinator of University of Maine School of Maine Science Seminar Series
- 2014      Judge for University of Maine Graduate Student Symposium (May 13-14)
- 2014      Panelist, Resiliency in Maine, Sea Grant Symposium, University of Maine (Apr 3)
- 2013      Judge for University of Maine Graduate Student Symposium (May 13-14)
- 2012      Dauphin Island Sea Lab Press Release “Shedding new light on coastal currents...” (Jun 7)

2012	Presentation during NOAA's Adopt a Drifter program release day (April 20)
2012	Judge for Dauphin Island Sea Lab Graduate Student Symposium
2011	Presented a 'Board Walk Talk', Dauphin Island Estuarium (Apr)
2010-2012	Participated in Discovery Day at Dauphin Island Sea Lab (Apr)
2010	Participated in NSF REU program mentoring undergraduate student (May-Aug).
2010	Presented a 'Board Walk Talk', Dauphin Island Estuarium (Apr)
2008	Attended Responsible Conduct in Research Conference (Jan)
2004-2006	Graduate Student Senator
2001-2005	Coast Day, a University of Delaware community awareness program (Oct)
2000-2009	Surfrider Foundation Member

## **Media Coverage**

2024	Interviewed by Sarah Gail Meyers of WEAR Channel 3 News – “Gulf Coast scientist talks differences in storm intensification between Milton and Sally” (Oct 09) <a href="https://www.weartv.com/news/local/dr-dzwonkowski-discusses-differences-in-storm-intensification-between-milton-and-sally">https://www.weartv.com/news/local/dr-dzwonkowski-discusses-differences-in-storm-intensification-between-milton-and-sally</a>
2024	Interviewed by Kasha Patel of <i>The Washington Post</i> – “What is making Hurricane Milton so ferocious (Oct 8) <a href="https://www.washingtonpost.com/climate-environment/interactive/2024/hurricane-milton-helene-marine-heat-wave-storms/?itid=hp-top-table-main_p001_f005">https://www.washingtonpost.com/climate-environment/interactive/2024/hurricane-milton-helene-marine-heat-wave-storms/?itid=hp-top-table-main_p001_f005</a>
2024	Interviewed by Margaret Kates of AL.com – “Dead zone off the Alabama coast larger than Rhode Island this year” (Aug 21) <a href="https://www.al.com/news/mobile/2024/08/dead-zone-off-the-alabama-coast-larger-than-rhode-island-this-year.html">https://www.al.com/news/mobile/2024/08/dead-zone-off-the-alabama-coast-larger-than-rhode-island-this-year.html</a>
2024	Featured on GCOOS website – Spring Meeting Event Wrap-up (May 7) <a href="https://gcoos.org/spring-meeting-wrap-2024/">https://gcoos.org/spring-meeting-wrap-2024/</a>
2023	Interviewed by Richard Banks of WBHM, National Public Radio – “The connection is growing between climate change and big storms” (Aug 31)

<https://wbhm.org/2023/the-connection-is-growing-between-climate-change-and-big-storms/>

- 2023 Interviewed by WEAR (ABC affiliate) – Aubrey Spears – “Scientists speak on rapid storm growth in the Gulf of Mexico ahead of Idalia landfall” (July 29) (<https://weartv.com/news/local/scientists-speak-on-rapid-storm-growth-in-the-gulf-of-mexico-ahead-of-idalia-landfall>)
- 2023 Interviewed by Raymond Zhong of the New York Times – “Hot Ocean Temperatures Could Give Hurricane Idalia a Boost” (Aug 29) <https://www.nytimes.com/2023/08/29/climate/hot-ocean-temperatures-idalia.html>
- 2023 Interviewed by WKRG (CBS affiliate) – The Four on Five – Extreme Gulf Temperatures (July 27) (<https://youtu.be/oklqieeYQgk>)
- 2023 Interviewed by John Sharp of AL.com – Dangers of Rips Current in Gulf of Mexico (July 12)
- 2022 Interviewed by FM Talk 106.5 – Midday Mobile – Sean Sullivan – Hurricanes and coastal ocean interactions (Sep 27)
- 2022 Interviewed by John Sharp of AL.com for news story on Mobile water levels (Sep 17) (<https://www.al.com/news/2022/09/hurricane-ian-impacts-alabama-coastal-setup-sucks-water-out-of-mobile-bay.html>)
- 2021 Interviewed by WEAR local ABC affiliate for news story on Gulf of Mexico hurricanes – Sep 9. <https://weartv.com/news/local/tropical-storm-intensity-tracking-theory-could-predict-future-hurricanes-strength>
- 2020 Interviewed by WKGR local CBS affiliate for news story on ARCOS – Nov 17. (<https://www.wkrg.com/digital-mojo/local-buoys-that-collect-weather-data-damaged-during-hurricanes/>)
- 2020 National Tropical Weather Conference (NTWC) Live Webinar (FOX 29 San Antonio, TX), produced by the Storm Science Network (Nov 11) - The program audience consists of broadcast meteorologists, government meteorologists, emergency managers, corporate disaster managers and other government entities that deal with tropical system impacts. ([https://www.facebook.com/NTWC2018/videos/hurricanecenter-live-marine-heatwaves-1933-hurricane-season/3499106483460233/?\\_so=\\_permalink&\\_rv=\\_related\\_videos](https://www.facebook.com/NTWC2018/videos/hurricanecenter-live-marine-heatwaves-1933-hurricane-season/3499106483460233/?_so=_permalink&_rv=_related_videos))
- 2020 Interviewed by WKGR local CBS affiliate for news story on active hurricane season

- 2020 Interviewed by WPXI, a local NBC affiliate, for news story on active hurricane season (Sep 25)  
[https://youtu.be/\\_g05O0CL1B4](https://youtu.be/_g05O0CL1B4)  
<https://youtu.be/rfVYt3w9WAo?t=724>
- 2020 Interviewed by New York Times  
<https://www.nytimes.com/2020/09/24/climate/ocean-heat-waves-blob.html>
- 2020 Interviewed by National Geographic  
<https://www.nationalgeographic.com/science/2020/10/tropical-storms-can-supercharge-hurricanes-that-follow/>
- 2020 Interviewed by The Guardian  
<https://www.theguardian.com/news/2020/sep/25/weatherwatch-did-marco-set-the-scene-for-hurricane-sally>
- 2020 Featured on UN Office for Disaster Risk Reduction (UNDRR) – PreventionWeb Global knowledge sharing platform on disaster risk reduction  
<https://www.preventionweb.net/news/view/73930>  
 The site receives an average of 100,000 visits per month.  
 Fanny Langella ([ewea@preventionweb.net](mailto:ewea@preventionweb.net))  
<https://www.undrr.org/>
- 2020 Coverage of Dzwonkowski et al. 2020 feature in ~25 general news websites/Science Aggregator websites/Institutional Press Releases
- 2020 Press Release on Dzwonkowski et al. (2020) -  
[https://eurekaalert.org/pub\\_releases/2020-09/disl-cio092220.php](https://eurekaalert.org/pub_releases/2020-09/disl-cio092220.php)
- 2020 NOAA NGI website – Highlighting Dzwonkowski et al. (2020)  
<https://www.northerngulfinstitute.org/news/story.php?d=942>
- 2020 GOMRI website – Summary of Coogan et al. (2019) -  
<https://gulfresearchinitiative.org/studies-explore-the-dynamics-of-how-offshore-oil-spills-affect-coastal-environments/>
- 2020 Press release on ARCOS WE-CP buoy  
<https://www.disl.edu/about/news/offshore-buoy-delivers-real-time-data-to-you>
- 2020 Press release – “Science That Makes Us Better Prepared for the Next Spill: Ocean Flows and Oil Transport” (May 28)  
<https://gulfresearchinitiative.org/science-that-makes-us-better-prepared-for-the-next-spill-ocean-flows-and-oil-transport/>

- 2020 Press release –“Study find delta helps to decrease the impact of river flooding”  
<https://www.disl.org/about/news/study-find-delta-decreases-impact-of-river-flooding> (Mar 4)
- 2019 NOAA Restore Science Project – highlighted by program -  
<https://restoreactscienceprogram.noaa.gov/decision-support-tool/expanded-observing-system-in-mobile-bay-reaches-over-7000-users>
- 2019 Interviewed for WKRG news story ‘Toxin Algal bloom in Mississippi’  
([https://www.fox10tv.com/news/home-values-dropping-because-of-rising-sea-levels/article\\_b1639c0c-f846-11e8-bbbd-0794d72e5059.html](https://www.fox10tv.com/news/home-values-dropping-because-of-rising-sea-levels/article_b1639c0c-f846-11e8-bbbd-0794d72e5059.html)), Jul 3.
- 2018 Interviewed for FOX10 news story ‘Home values dropping because of rising sea levels’ ([https://www.fox10tv.com/news/home-values-dropping-because-of-rising-sea-levels/article\\_b1639c0c-f846-11e8-bbbd-0794d72e5059.html](https://www.fox10tv.com/news/home-values-dropping-because-of-rising-sea-levels/article_b1639c0c-f846-11e8-bbbd-0794d72e5059.html)), Dec 4.
- 2018 Press release - ‘What could cause the Mississippi Bight to become hypoxic’ – Nov issue (<https://skimmer.disl.org/what-could-cause-the-mississippi-bight-to-become-hypoxic/>) , Nov 8.
- 2018 Work cited in Regional Publication, Lagniappe (<https://lagniappemobile.com/low-yields-prompt-cancellation-of-public-oyster-season/>), Nov 14.
- 2018 Press Release for CSR paper ‘What could cause the Mississippi Bight to become hypoxic?’ [https://www.eurekalert.org/pub\\_releases/2018-11/disl-wcc110818.php](https://www.eurekalert.org/pub_releases/2018-11/disl-wcc110818.php)
- 2018 Interviewed for ABC WLOX news story “Monitoring local conditions as red tide spreads into NW Florida” <https://abc3340.com/news/local/monitoring-local-conditions-as-red-tide-spreads-into-nw-florida> (Sep 18)
- 2018 Report on MyMobileBay.com, NOAA Restore Science Program project (Feb 14)  
<http://www.fox10tv.com/clip/14127187/fox10-outdoors-february-14-2018>
- 2017 Research featured in Northern Gulf Institute news letter (“The Portal”) article by Jonathan Harris (Aug 25)
- 2017 Report on MyMobileBay.com, NOAA Restore Science Program project (July 23)  
[https://www.al.com/news/mobile/2017/07/720000\\_grant\\_will\\_keep\\_mobile.html](https://www.al.com/news/mobile/2017/07/720000_grant_will_keep_mobile.html)
- 2017 CONCORDE project webpost highlighting work - <http://www.concorde.org/news/insights-from-hurricane-patricia-for-mixing-of-estuarine-and-continental-shelf-waters/> (May 17)

- 2015 Interviewed for FOX10 news story “Toxic red tide a “massive bloom in our are” ” (<http://www.fox10tv.com/story/30729849/toxic-red-tide-a-massive-bloom-in-our-area>) (Dec 11)
- 2015 Interviewed for ABC WLOX news story “Scientists track simulated industrial spill in Grand Bay NERR” (<http://www.wlox.com/story/29446067/scientists-track-simulated-industrial-spill-in-grand-bay-nerr>) (Jun 30)

## **Technical Skills**

MATLAB – advanced level  
MOCC Boat operations  
C++ - basic level  
Fortran – basic level  
IDL – basic level  
ArcGIS 8 – basic level

## **Society Memberships**

American Geophysical Union  
American Meteorological Society  
American Society of Limnology and Oceanography  
Coastal and Estuarine Research Federation

## **Advisors**

X.-H. Yan (University of Delaware) for M.S. and Ph.D.  
K.C. Wong and W.J. Ullman (Post-doc, University of Delaware)  
K. Park and W.M. Graham (Post-doc, Dauphin Island Sea Lab)