Curriculum Vitae

James A. Nelson

Assistant Professor
Department of Biology
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EDUCATION

2011	Florida State University Ph.D., Chemical Oceanography Supervisor: Dr. Jeffrey Chanton
2004	Florida State University B.S., Biology *Honors: Certificate in Marine Resource Ecology*

EMPLOYMENT

2015-Present	Assistant Professor, Department of Biology, University of Louisiana, Lafayette, LA
2013-2015	Assistant Research Scientist, Marine Biological Laboratory, Woods Hole, MA
2011-2013	Northeastern Climate Science Center Postdoctoral Fellow, Ecosystems Center Marine Biological Laboratory, Woods Hole, MA Mentored by Dr. Linda Deegan
2006-2011	Graduate Research Assistant, Department of Oceanography Florida State University, Tallahassee, FL

PUBLICATIONS

All publications listed are peer-reviewed. (*)Undergraduate Author (+) Graduate Student Author

In Review or Revision

Nelson, J.A., J.S. Lesser[+], W. Ryan James[+], D.P. Behringer[+], V. Furka*, J.C. Doerr. Food web response to foundation species change in a coastal ecosystem. Food Webs- *In Review*

James, W. Ryan[+], L.S. Lesser[+], S.Y. Litvin, **J. A. Nelson**, Assessment of food web recovery following restoration using resource niche metrics. Science of the Total Enviornment- *In Revision*

Lesser, J.S.[+], W.R. James[+], C.D. Stallings, R.M. Wislon, **J.A. Nelson,** Trophic niche volume decreases with increasing ecosystem productivity. Ecography- *In Revision*

In Print or Press

Nelson, J.A., D.S. Johnson, L.A. Deegan, A.C. Spivak, N.R. Moore*****. 2019. Geomorphology modifies bottom-up control on food webs. Ecosystems, 22 (2), 229-242.

Harris, J.M. [+], **J.A. Nelson**, G. Rieucau, W.P. Broussard III. 2019. Use of drones in fisheries science, Transactions of the American Fisheries Society, 148 (4), 687-697

Eggenberger, C.W.[+], R.O. Santos, T.A. Frankovich, W.R. James[+], C.J. Madden, **J.A. Nelson**, J.S. Rehage. 2019. Coupling telemetry and stable isotope techniques to unravel movement: Snook habitat use across variable nutrient environments. Fisheries Research, 218, 35-47

Dornelas, M., L. H. Antao, F. Moyes, B.E. Bates, A.E. Magurran, D. Adam,…, **J.A. Nelson**, ... & Ayyappan, N. 2018. BioTIME: A database of biodiversity time series for the Anthropocene. Global Ecology and Biogeography, 27(7), 760-786.

Wilson, R. M., R. B. Tyson, **J. A. Nelson**, B. C. Balmer, J. P. Chanton, and D. P. Nowacek. 2017. Niche Differentiation and Prey Selectivity among Common Bottlenose Dolphins (*Tursiops truncatus*) Sighted in St. George Sound, Gulf of Mexico. Frontiers in Marine Science 4, 235

Baker, H. K.*, **J. A. Nelson**, and H. M. Leslie. 2016. Quantifying Striped Bass (*Morone saxatilis*) Dependence on Saltmarsh-Derived Productivity Using Stable Isotope Analysis. Estuaries and Coasts 39 (5), 1537-1542.

Moulton, O. M.[+], M. A. Altabet, J. M. Beman, L. A. Deegan, J. Lloret, M. K. Lyons, **J. A. Nelson**, and C. A. Pfister. 2016. Microbial associations with macrobiota in coastal ecosystems: patterns and implications for nitrogen cycling. Frontiers in Ecology and the Environment 14 (4), 200-208.

Nelson, J. A., L. Deegan, and R. Garritt. 2015. Drivers of spatial and temporal variability in estuarine food webs. Marine Ecology Progress Series 533, 67-77.

Stallings, C. D., **J. A. Nelson**, K. L. Rozar, C. S. Adams, K. R. Wall, T. S. Switzer, B. L. Winner, and D. J. Hollander. 2015. Effects of preservation methods of muscle tissue from upper-trophic level reef fishes on stable isotope values ($\delta^{13}C$ and $\delta^{15}N$). PeerJ 3:e874.

Stallings, C. D., A. Mickle*, **J. A. Nelson**, M. G. McManus, and C. C. Koenig. 2015. Faunal communities and habitat characteristics of the Big Bend seagrass meadows, 2009–2010. Ecology 96 (1) 304-304.

Wilson, R., **J.A. Nelson**, B. Balmer, D. Nowacek, and J. Chanton. 2013. Stable isotope variation in the northern Gulf of Mexico constrains bottlenose dolphin (*Tursiops truncatus*) foraging ranges. Marine Biology 159, 2967-2980.

Nelson, J. A., C. D. Stallings, W. M. Landing, and J. Chanton. 2013. Biomass Transfer Subsidizes Nitrogen to Offshore Food Webs. Ecosystems 16 (6), 1130-1138.

Nelson, J. A., R. M. Wilson, F. C. Coleman, C. C. Koenig, D. DeVries, C. Gardner, and J. Chanton. 2012. Flux by fin: fish mediated carbon and nutrient flux in the northeastern Gulf of Mexico. Marine Biology 159, 365-372.

Nelson, J. A., C. W. Hanson, C. C. Koenig, and J. Chanton. 2011. Influence of diet on stable carbon isotope composition in otoliths of juvenile red drum, *Sciaenops ocellatus*. Aquatic Biology 13 (1), 89-95.

Nelson, J. A., J. P. Chanton, F. C. Coleman, and C. C. Koenig. 2010. Patterns of stable carbon isotope turnover in gag, Mycteroperca microlepis, an economically important marine piscivore determined with a non-lethal surgical biopsy procedure. Environmental Biology of Fishes 90 (3), 243-252.

FUNDING

2019

PI: "Ecological Function and Recovery of Biological Communities within Sand Shoal Habitats within the Gulf of Mexico (MM-19-01)", Funded by US Department of the Interior, Bureau of Ocean Energy Management, Award total $1,999,995/Lab Total $1,143,084

CoPI: "Collaborative Research: TIDE: Legacy effects of long-term nutrient enrichment on recovery of saltmarsh ecosystems", Funded by National Science Foundation, Award Total $1,337,907/Lab Total $141,086

PI: "Early-Career Fellowship", Funded by National Academies of Sciences, Engineering, and Medicine Gulf Research Program, Award Total $76,000/Lab Total $75,000

PI: "2019 Flooding impacts in Wax Lake and Morgan City mapped with drones", Funded by Louisiana Sea Grant, Award Total $16,021

PI: "LTER: Drivers of Abrupt Change in the Florida Coastal Everglades"
Funded by National Science Foundation, Award Total $33,500

2018

PI: "Effects of nutrient effluent on a forested Louisiana Wetland"
Funded by Louisiana Department of Environmental Quality, Award Total $223,003

CoPI: "Effects of freshwater inflows and seagrass die-offs on recreational fisheries: A trophic & movement ecology approach", Funded by US Department of the Interior, Parks Service, Award Total $747,300/Lab Total $112,843

CoPI: "Growth of juvenile brown shrimp and white shrimp in saltmarsh and black mangrove habitats", Funded by NOAA Southeast Fisheries Science Center, Award Total $180,000/Lab Total $48,484

2017

PI: "Core submission; Development of Restoration Assessment Tools and Educational Products with Drones", Funded by Louisiana Sea Grant, Award Total $124,000

2015

CoPI: "Marshes to mangroves: examining growth and patterns of habitat use by penaeid shrimp in a changing marsh landscape to inform stock assessments", Funded by NOAA Habitat Assessment and Improvement Plan, Award Total $153,000/Lab Total $63,014

HONORS

2019 National Academies of Sciences, Engineering, and Medicine Gulf Research Program Early Career Fellow
2017 Louisiana Sea Grant LADIA Fellowship
2015 U.S. Department of the Interior Climate Science Center Research Fellow

ADVISING and TEACHING

Current Courses Taught Ecosystem Ecology, Fish Ecology and Management, Quantitative Ecology in R

Current Graduate Students Justin Lesser, W. Ryan James, Skyler Flaska, Mason Harris

Past Graduate Students David P. Behringer M.Sc.

PROFESSIONAL ACTIVITIES

Working Groups Estuarine Ecology Expert- Sediment Diversion Operations Expert Working Group- Environmental Defense Fund, Louisiana Marine Consortium GAPPLE panel, CERF Odum Award Committee

Selected Presentations

2015-Present Coastal and Estuarine Research Federation National Meeting
Ecological Society of American Annual Meeting
State of the Coast
Benthic Ecology Meeting
Marine Biological Laboratory – Invited Speaker
Brown University-Invited Speaker
University of South Florida – Invited Speaker
Louisiana State University – Invited Speaker
Louisiana Universities Marine Consortium –Invited Speaker

Selected Peer Review Referee

2015-Present Proceedings of the National Academy of Science, Proceedings of the Royal Society B, Ecology, Frontiers in Ecology and Environment, Nature Communications, Ecology, Marine Biology, National Science Foundation, National Oceanic and Atmospheric Administration, Ecosystems, Oecologia

UNIVERSITY and COMMUNITY SERVICE

2015-Present Graduate Faculty Committee, Departmental Search Committees, St. Thomas Moore Fishing Club science advisor, Opelousas Rotary Club Presentation, Milton Elementary and Middle School Presentation, 4H Club/Louisiana Sea Grant Marsh Maneuvers, FIRST LEGO League coach Ascension Episcopal School.