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Education

PhD, Oceanography and Coastal Sciences (2006), Louisiana State University, Baton Rouge, LA.
Minor- Experimental Statistics

BS, Marine Fisheries (1998), Texas A&M University, Galveston, TX

Professional Appointments

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| 2017- Present | Associate Professor, Marine Science Program, Department of Biological Sciences, Florida International University |
| 2011-2017 | Assistant Professor, Marine Science Program, Department of Biological Sciences, Florida International University |
| 2012- Present | Assistant Professor- Adjunct, Department of Oceanography and Coastal Sciences, Louisiana State University |
| 2011 | Assistant Professor- Research, Department of Oceanography and Coastal Sciences, Louisiana State University |
| 2007- 2010 | Postdoctoral Research Associate, Department of Oceanography and Coastal Sciences, Louisiana State University; <i>Advisor: Dr. James H. Cowan, Jr.</i> |
| 2001- 2006 | Graduate Research Assistant- Department of Oceanography and Coastal Sciences, Louisiana State University; <i>Advisor: Dr. Charles A. Wilson</i> |

Publications (* corresponding author; ^FFIU graduate student; ^Ppostdoc; ^Uundergraduate)

In review

- ^FBinder, B., K. Gastrich, R. Boucek, M.R. Heithaus, **K.M. Boswell**. In review. Direct observation of shark depredation using a multi-beam imaging system. *Submitted to Biology Letters*.
- ^FBinder, B., C.T., J. Locascio, and **K.M. Boswell**. Impact of an anthropogenically mediated environmental disturbance on coastal fish community dynamics. *Submitted to Marine Ecology Progress Series*.
- Li, C., **K.M. Boswell**, N. Chaichitehrani, W. Huang, R. Wu. Weather Induced Subtidal Flows through a Lagoon with Asymmetric Open Ratios. Submitted to *Estuaries and Coasts*.
- Boswell, K.M.**, ^PM.A. D'Elia, M. Johnston, T.T. Sutton, A. Cook, J. Mohan, J.D. Warren, and R.J.D. Wells. (*In review*). Oceanographic structure and solar elevation mediates patterns in Gulf of Mexico mesopelagic scattering layers. *ICES Journal of Marine Science- Invited submission for special issue- Mesopelagic resources – potential and risk*.
- Boswell K.M.**, ^PG. Rieucan, J. Martin, D.A. Jacques, M.E. Kimball, and D.M. Allen. (*In revision*) Tidal stage mediates periodic asynchrony between predator and prey nekton in salt marsh creeks. *Revised manuscript returned to Estuaries and Coasts, waiting for decision from Journal*.

5. ^PRieucou, G., M.A. D'Elia, J. D. Warren, T.T. Sutton, **K.M. Boswell**. (*In review*). Complex vertical commuting of mesopelagic scattering layers: Implications of taxonomic-based migration decisions on global biogeochemical fluxes. *Marine Ecology Progress Series*.
4. ^FBarton, M.B., S.Y. Litvin, J.J. Vollenweider, R.A. Heintz, B.L. Norcross, and **K.M. Boswell**. (*In revision*). Implications of trophic discrimination factor selection for stable isotope food web models of low trophic levels in the Arctic nearshore. *Marine Ecology Progress Series*.
3. Jacques D.A., W.W. Wakefield, J.C. Taylor, and **K.M. Boswell**. (*In revision*) Using imaging sonars to measure changes in the behavior and distribution of fishes in the presence of unmanned underwater vehicles. *Revised manuscript returned to Fisheries Research, waiting for decision from Journal*.
2. ^FZenone, A.M., D.E. Burkepile and **K.M. Boswell**. (*In revision*) Composition, abundance, and distribution of fish communities associated with a high latitude reef, Florida, USA. *Submitted to Bulletin of Marine Science*.
1. Garwood, J.A., D.M. Allen, M.E. Kimball and **K.M. Boswell**. (*In revision*). Site fidelity and habitat use by young-of-the-year transient fishes in salt marsh intertidal creeks. *Submitted to Estuarine, Coastal, Shelf Science*.

Published

- 50 Johnson, G. D.E. Shoup, and **K.M. Boswell**. (*In Press*). Accuracy and precision of hydroacoustic estimates of Gizzard Shad abundance using horizontal beaming. *Submitted to Fisheries Research*.
- 49 ^FBarton, M.B., S.Y. Litvin, J.J. Vollenweider, R.A. Heintz, B.L. Norcross, and **K.M. Boswell**. (2019). Experimental determination of tissue turnover rates and trophic discrimination factors for stable carbon and isotope ratios for Arctic sculpin (*Myoxocephalus scorpioides*): a common Arctic nearshore fish. *Journal of Experimental and Marine Biology and Ecology*.
48. ^PRieucou, G., J.J. Kiszka, J.C. Castillo, J. Mourier, **K.M. Boswell**, and M.R. Heithaus. 2018. Using unmanned aerial vehicle (UAV) surveys and image analysis in the study of large surface-associated marine species: a case study on reef sharks *Carcharhinus melanopterus* shoaling behavior. *Journal of Fish Biology* 93:119-127.
47. Rooker, J.R., M.A. Dance, R.J.D. Wells, A. Quigg, R.L. Hill, R.S. Appeldoorn, B. Padovani Ferreira, **K.M. Boswell**, P.J. Sanchez, D.L. Moulton, L.L. Kitchens, G.J. Rooker, and A. Aschenbrenner. Seascape connectivity and the influence of predation risk on the movement of fishes inhabiting a tropical mangrove-seagrass-patch reef ecosystem. *Ecosphere*, 9(4), p.e02200.
46. ^FBarton M.B., **K.M. Boswell**, R.A. Heintz, J.R. Moran, J.J. Vollenweider. 2017. Erratum to: Latitudinal variation of diet and energy allocation in Capelin (*Mallotus villosus*). *Polar Biology*. 40: 1465. DOI:10.1007/s00300-017-2097-0
45. Straley J.M., J. J. Moran, **K.M. Boswell**, J.J. Vollenweider, R.A. Heintz, T.J. Quinn II, B. Witteveen and S. Rice. 2018. Seasonal presence and potential influence of foraging humpback whales upon Pacific herring wintering in the Gulf of Alaska. *Deep Sea Research II*. DOI 10.1016/j.dsr2.2017.08.008
44. Mohan, J., T.T. Sutton, A. Cook, **K.M. Boswell** and R.J.D. Wells. 2017. Influence of mesoscale features on Carangidae (jacks) fishes. *Fisheries Oceanography*. 26: 546-541. DOI: 10.1111/fog.12214
43. Kimball M.E., **K.M. Boswell**, L.P. Rozas, E. K. Berwaldt, and A. R. Richards. 2017. Swimming abilities of juvenile estuarine fishes: implications for passage at water control structures. *Wetlands Ecology and Management*. 25:299-312. DOI 10.1007/s11273-017-9580-9.

42. Shahrestani S., H. Bi, V. Lyubchich, and **K. M. Boswell**. 2017. Detecting a nearshore fish parade using the adaptive resolution imaging sonar (ARIS): an automated procedure for data analysis. *Fisheries Research*. 191:190-199. DOI 10.1016/j.fishres.2017.03.013
41. Kurvers, R.H.J.M, S. Krause, P.E. Viblanc, J.E. Herbert-Read, P. Zalansky, P. Domenici, S. Marras, J.F. Steffensen, M.B.S. Svendsen, A.D.M. Wilson, P. Couillaud, **K.M. Boswell** and J.Krause. 2017. The Evolution of Lateralisation in Group Hunting Sailfish. *Current Biology*. 27:521-526.
40. ^FZenone, A.M., D. E. Burkepile, and **K.M. Boswell**. 2017. A comparison of diver vs. acoustic methodologies for surveying nekton in a shallow water coral reef ecosystem. *Fisheries Research*. 189:62-66.
39. ^PCatano, L.B., ^FM.B. Barton, **K.M. Boswell**, D.E. Burkepile. 2017. Predator hunting mode and time of day shape the risk-reward trade-off in feeding behavior of herbivorous fishes on a coral reef. *Oecologia*. 183:763-773.
38. **Boswell K.M.**, ^PG. Rieucan, J.J. Vollenweider, J.M. Moran, R.A. Heintz, J.K. Blackburn, and D.J. Csepp. 2016. Are spatial and temporal patterns in Lynn Canal overwintering Pacific herring related to top predator activity? *Canadian Journal of Fisheries and Aquatic Sciences*. DOI 10.1139/cjfas-2015-0192.
37. Li, C., X. Li, G. Zhang, **K.M. Boswell**, M. E. Kimball, D. Shen, and J. Lin. 2016. Estuarine Plume: A Case Study by Satellite SAR Observations and In Situ Measurements. *IEEE Transactions on Geoscience and Remote Sensing*. DOI 10.1109/TGRS.2016.2641161
36. Kimball M.E., **K.M. Boswell** and L.P. Rozas. 2016. Estuarine fish behavior around slotted water control structures in a managed salt marsh. *Wetlands Ecology and Management*. DOI 10.1007/s11273-016-9517-8.
35. ^FBarton M.B., **K.M. Boswell**, R.A. Heintz, J.R. Moran, J.J. Vollenweider. 2017. Latitudinal variation of diet and energy allocation in Capelin (*Mallotus villosus*). *Polar Biology*. 40: 1451-1463. DOI 10.1007/s00300-016-2041-8.
34. Churnside, J.H., R.J.D. Wells, **K.M. Boswell**, J.A. Quinlan, R.D. Marchbanks, B.J. McCarty, and T.T. Sutton. 2016. Surveying the distribution and abundance of flyingfishes and other epipelagics in the northern Gulf of Mexico using airborne lidar. *Bulletin of Marine Science*. 93:1-19.
33. Svendsen M.B.S., P. Domenici, S. Marras, J. Krause, **K.M. Boswell**, ^FI. Rodriguez-Pinto, A.D.M. Wilson, R.H. Kurvers, P.E. Viblanc, J.S. Finger, and J.F. Steffensen. 2016. Maximum swimming speeds of sailfish and three other large marine predatory fish species based on muscle contraction time and stride lengths: A myth revisited. *Biology Open*. 5: 1415-1419; doi: 10.1242/bio.019919.
32. ^PD'Elia, M.A., ^VJ.D. Warren, ^FI. Rodriguez-Pinto, T.T. Sutton, A. Cook and ***K.M. Boswell**. 2016. Diel variation in the vertical distribution of deep-water scattering layers in the Gulf of Mexico. *Deep Sea Research I*. 115:91-102. * corresponding author
31. Lin J., C. Li, **K.M. Boswell**, M.E. Kimball, and L. Rozas. 2016. Examination of winter circulation in a northern Gulf of Mexico estuary. *Estuaries and Coasts*. 39: 879-899. DOI 10.1007/s12237-015-0048-y
30. Copeman L., B. Laurel, A. Stremba, K. Klinck, R.A. Heintz, J.J. Vollenweider, and **K.M. Boswell**. 2015. Ontogenetic variability in the lipid content of saffron Cod (*Eleginus gracilis*)

- from the Western Arctic and Northern Chukchi. *Polar Biology*. 10.1007/s00300-015-1792-y
29. Kimball M.E., L.P. Rozas, **K.M. Boswell** and J.H. Cowan. 2015. Effect of slotted water control structures on nekton movement within salt marshes. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science*. 7:177–189.
 28. Marras, S., T. Noda, J.F. Steffensen, MBS Svendsen, J. Krause, A.D.M. Wilson, R.H.J.M. Kurvers, J. Herbert-Read, K.M. Boswell and P. Domenici. 2015. Not So Fast: Swimming Behavior of Sailfish during Predator–Prey Interactions using High-Speed Video and Accelerometry. *Society for Integrative and Comparative Biology*. doi:10.1093/icb/icv017.
 27. ^VRieucou G., **K.M. Boswell**, M.E. Kimball, D.M. Allen and ^UG. Diaz. 2105. Tidal and diel variations in schooling behavior of estuarine fish within an intertidal salt marsh creek. *Hydrobiologia*. DOI 10.1007/s10750-015-2202-8.
 26. Handegard N.O., A. DeRobertis, G. Rieucou, **K.M. Boswell** and G. Macaulay. 2015. The reaction of a captive herring school to playbacks of a noisy and a conventional research vessel. *Canadian Journal of Fisheries and Aquatic Sciences*. 72:491-499, DOI 10.1139/cjfas-2014-0257.
 25. ^GSaari C.R., **K.M. Boswell** and J.H. Cowan. 2014. Regional differences in the age and growth of red snapper (*Lutjanus campechanus*) across the Gulf of Mexico. *Bulletin of Marine Science*. 112:261-273.
 24. Rieucou G., A. DeRobertis, **K.M. Boswell** and N.O. Handegard. 2014. School density affects the strength of collective avoidance responses in wild-caught Atlantic herring (*Clupea harengus*): a simulated-predator encounter experiment. *Journal of Fish Biology*. DOI 10.1111/jfb.12520
 23. Shoup D.E., **K.M. Boswell**, and D.H. Wahl. 2014. Diel littoral-pelagic movements by juvenile bluegill in a small lake. *Transactions of the American Fisheries Society*. 143: 796-801.
 22. ^GSimonsen K.A., J.H. Cowan and **K.M. Boswell**. 2014. Habitat differences in the feeding ecology of red snapper (*Lutjanus campechanus*): A comparison between artificial and natural reefs in the northern Gulf of Mexico. *Environmental Biology of Fishes*: DOI 10.1007/s10641-014-0317-9.
 21. Rieucou G., **K.M. Boswell**, A. DeRobertis, G.J. Macaulay and N.O. Handegard. 2014. Experimental evidence of threat-sensitive collective avoidance responses in a large wild-caught herring school. *PLoS One*. 9: e86726. DOI: 10.1371/journal.pone.0086726.
 20. ^GSluis, M.Z., **K.M. Boswell**, M.M. Chumchal, ^UB. Keister, R.J.D. Wells and J.H. Cowan. 2013. Regional variation in mercury and stable isotopes of red snapper (*Lutjanus campechanus*) in the northern Gulf of Mexico, USA. *Environmental Toxicology and Chemistry*. DOI 10.1002/etc.2077.
 19. Grabowski, T.B., **K.M. Boswell**, B.J. McAdam, R.J.D. Wells, G. Marteinsdottir. 2012. Characterization of Atlantic cod spawning habitat and behavior in Icelandic coastal waters. *PLoS ONE*. 7:e51321 DOI 10.1371/journal.pone.0051321
 18. Cowan J.H., J.C. Rice, C.J. Walters, R. Hilborn, T.E. Essington and **K.M. Boswell**. 2012. Challenges for Implementing an Ecosystem Approach to Fisheries Management. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science*, 4:496-510.
 17. Handegard, N.O., **K.M. Boswell**, C.C. Ioannou, ^US.P. LeBlanc, D.B. Tjostheim and I.D. Couzin.

2012. The dynamics of coordinated group hunting and collective information-transfer among schooling prey. *Current Biology*, 22:1213-1217. Video abstract:

http://www.youtube.com/watch?v=e_NVDz7XzIo&feature=player_embedded

-Accompanied by a Dispatches in *Current Biology* by Graeme Ruxton
[“Group Dynamics: Both Predators and Prey Get a Little Help From Their Friends”](#)

16. ^GGarner S.B., J.L. van der Ham and **K.M. Boswell**. 2012. Use of bioelectric impedance analysis to assess total-body condition of Atlantic croaker (*Micropogonias undulatus*). *Transactions of the American Fisheries Society*, 141:1117–1125.
15. **Boswell, K.M.**, N.O. Handegard, S. Leblanc, I.D. Couzin. 2011. Predator–prey interactions and fish schooling behavior revealed through the lens of a sonar. *Journal of the Acoustical Society of America* 129, 2697; DOI /10.1121/1.3589052
14. Campbell M.D., K.A. Rose, **K.M. Boswell** and J.H. Cowan. 2011. Individual-based modeling of fish population dynamics of an artificial reef community: effects of habitat quantity and degree of refuge. *Ecological Modeling*, 222:3895– 3909.
13. ^GBonvillain C.P., B.T. Halloran, **K.M. Boswell**, W.E. Kelso, A.R. Harlan, and D.A. Rutherford. 2011. Acute physicochemical effects associated with the passage of Hurricane Gustav in a large river-floodplain system. *Wetlands*. 31:979-987.
12. **Boswell K.M.**, R.J.D. Wells, J.H. Cowan and C.A. Wilson. 2010. Biomass, density, and size distributions of fishes associated with a large-scale artificial reef complex in the Gulf of Mexico. *Bulletin of Marine Science*, 86:879-889.
11. Kimball M.E., **K.M. Boswell**, L.P. Rozas and **J.H. Cowan**. 2010. Evaluating the effect of slot size and environmental variables on the passage of estuarine nekton through a water control structure. *Journal of Experimental Marine Biology and Ecology*, 395:181-190.
10. Mueller A.M., D.L. Burwen, **K.M. Boswell** and T. Mulligan. 2010. Tail Beat Patterns in DIDSON Echograms and their Potential Use for Species Identification and Bioenergetics Studies. *Transactions of the American Fisheries Society*, 139:900-910.
9. **Boswell K.M.**, M.P. Wilson, P.S.D. MacRae, C.A. Wilson and J.H. Cowan. 2010. Seasonal estimates of fish biomass and length distributions using acoustics and traditional nets to identify estuarine habitat preferences in Barataria Bay, Louisiana. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science*, 2:83-97.
8. **Boswell K.M.**, B.M. Roth and J.H. Cowan. 2009. Simulating the effects of fish orientation on acoustic biomass calculations. *ICES Journal of Marine Science*, 66: 1398-1403.
7. **Boswell K.M.**, M.D. Kaller, C.A. Wilson and J.H. Cowan. 2008. Evaluation of target strength-fish length equation choices for estimating estuarine fish biomass. *Hydrobiologia*, 610:113-123.
6. **Boswell K.M.** and C.A. Wilson. 2008. Side-aspect target strength measurements of bay anchovy (*Anchoa mitchilli*) and Gulf menhaden (*Brevoortia patronus*). *ICES Journal of Marine Science*, 65:1012-1020.
5. **Boswell K.M.**, M.P. Wilson and J.H. Cowan. 2008. A semi-automated approach to estimating fish size, abundance and behavior from Dual-frequency Identification Sonar (DIDSON) data. *North American Journal of Fisheries Management*, 28:799-807.

4. Wells R.J.D., **K.M. Boswell**, J.H. Cowan and W.F. Patterson. 2008. Size selectivity of sampling gears targeting red snapper in the northern Gulf of Mexico. *Fisheries Research*, 89:294-299.
3. **Boswell K.M.**, C.A. Wilson and M.W. Miller. 2007. A lightweight platform for use in stationary shallow water horizontal-aspect acoustic surveys. *Fisheries Research*, 85:291-294.
2. **Boswell K.M.**, M.P. Wilson and C.A. Wilson. 2007. Hydroacoustics as a tool for assessing fish biomass and distribution associated with discrete habitats in a Louisiana estuary. *Estuaries and Coasts*, 30:607-617.
1. Hodges D.D., D. Lee, C.F. Preston, **K.M. Boswell**, L.M. Hall and D.K. O'Dowd. 2001. tipE regulates Na⁺-dependent repetitive firing in Drosophila neurons. *Molecular and Cellular Neuroscience*, 19:402-416.

Book Chapters

1. Handegard NO, **K.M. Boswell**, A De Robertis, GJ Macaulay, G Rieucan, and LS Doksæter. 2016. Investigating the effect of tones and frequency sweeps on the collective behavior of penned herring (*Clupea harengus*). In *Effects of noise on aquatic life II* (Editors A. N. Popper & A. Hawkins). *Advances in Experimental Medicine and Biology*. Vol 875. pp 391-398. Springer. doi: 10.1007/978-1-4939-2981-8_46.

Proceedings

4. **Boswell K.M.**, M.E. Kimball, and D.A. Allen. 2013 GCFI. Evaluating fine scale nekton distribution and behavior in intertidal-subtidal salt marsh creek complexes. *Proceedings of the Gulf and Caribbean Fisheries Institute*. 65:84-85.
3. Jech J.M., **K.M. Boswell**, T. Barao, J. Condiotty, G.D. Melvin, J.C. Taylor, W.W. Wakefield, T.C. Weber. 2012. Calibration of two orthogonal dual-frequency identification sonars (DIDSONs). *Proceedings of the 11th European Conference on Underwater Acoustics*, 480-487.
2. Wells R.J.D., **K.M. Boswell**, J.H. Cowan and W.F. Patterson. 2007. A comparison of multiple gear types in sampling red snapper on natural low-relief reefs. *Proceedings of the Gulf and Caribbean Fisheries Institute*, 59: 215-222.
1. **Boswell K.M.** and C.A. Wilson. 2002. Comparison of hydroacoustic surveys to traditional trawl methods for determining nekton biomass in a Louisiana estuary. *Proceedings of the Gulf and Caribbean Fisheries Institute*, 55:395-402.

Published Datasets

Patterson, W.F. and K.M. Boswell. Reef fish community analysis for Summer 2016. Fishery-Independent Surveys of Reef Fish Community, Size, and Age Structure off Northwest Florida-FLRACEP. DOI: [10.7266/N7XS5SZP](https://doi.org/10.7266/N7XS5SZP)

Patterson, W.F. and K.M. Boswell. Reef fish community analysis for Summer 2017. Fishery-Independent Surveys of Reef Fish Community, Size, and Age Structure off Northwest Florida-FLRACEP. DOI: [10.7266/N7T1526M](https://doi.org/10.7266/N7T1526M)

Boswell, K.M. 2016. Raw acoustic scattering data of organisms from the water column, R/V Point Sur, cruise DP01, May 1 - 8, 2015. Deep-Pelagic Nekton Dynamics of the Gulf of Mexico (DEEPEND). DOI: [10.7266/N76T0K11](https://doi.org/10.7266/N76T0K11)

Boswell, K.M. 2016. Raw acoustic scattering data of organisms from the water column, R/V Point Sur, Cruise DP02, August 8-21 2015. Deep-Pelagic Nekton Dynamics of the Gulf of Mexico (DEEPEND). DOI: [10.7266/N7BK19RB](https://doi.org/10.7266/N7BK19RB)

Boswell, K.M. 2017. Raw acoustic scattering data of organisms from the water column, R/V Point Sur, Cruise DP03 - April 2016. Deep-Pelagic Nekton Dynamics of the Gulf of Mexico (DEEPEND). DOI: [10.7266/N7CN729W](https://doi.org/10.7266/N7CN729W)

Boswell, K.M. 2017. Raw acoustic scattering data of organisms from the water column, R/V Point Sur, Cruise DP04 - April 2016. Deep-Pelagic Nekton Dynamics of the Gulf of Mexico (DEEPEND). DOI: [10.7266/N7H41PX6](https://doi.org/10.7266/N7H41PX6)

Boswell, K.M., and W. Patterson. 2017. Raw acoustic scattering data of organisms from the water column associated with artificial and natural reefs- Summer 2016. Fishery-Independent Surveys of Reef Fish Community, Size, and Age Structure off Northwest Florida. DOI: [10.7266/N7HD7T2P](https://doi.org/10.7266/N7HD7T2P)

Boswell, K.M., W. Patterson. 2017. Raw acoustic scattering data of reef associated fishes from the northwestern Florida Shelf, Gulf of Mexico- Summer 2016. Fishery-Independent Surveys of Reef Fish Community, Size, and Age Structure off Northwest Florida. DOI: [10.7266/N7WM1BR2](https://doi.org/10.7266/N7WM1BR2)

Boswell, K.M., W. Patterson. 2017. Raw acoustic scattering data of reef associated fishes from the northwestern Florida Shelf, Gulf of Mexico - May, August, September 2017. Fishery-Independent Surveys of Reef Fish Community, Size, and Age Structure off Northwest Florida. DOI: [10.7266/N7P849B3](https://doi.org/10.7266/N7P849B3)

Research Funding

Pending Proposals

2019- 2022. NOAA MARFIN. Y.P. Papastamatiou, A.R. Harborne, and **K.M. Boswell**. Connectivity of wrecks with natural reefs and their role. (Total: \$419,415).

2019-2022. NSF-REU. R. Teutonico, T. Crawl, **K.M. Boswell**, J. Corrales, J. Eirin-Lopez, J.W. Fourqurean, E.E. Gaiser, P.R. Gardinali, J.S. Kominoski, R.M. Price, M.S. Ross, S.F. Oberbauer, C. Yong, W.V. Van Hamme, and M.R. Heithaus. REU Site: Understanding Coastal Ecosystems: From the Everglades to the Coral Reefs. (Total: \$360,000).

2019-2022. NSF-Biological Oceanography. L. Blanco-Bercial (PI), K.M. Noyes, T.J. Noyes, **K.M. Boswell**, and T.T. Sutton. Collaborative research: Reassessing the Role of the Open Ocean Nektonic Community in the Carbon Cycle. (Total: \$1,158,661).

2019-2022. ONR-DURIP. **K.M. Boswell** (PI), L. Cherubin, and D. Nowacek. Taking the mesopelagic by swarm: Sampling deep prey layers with autonomous smart drifters. (Total: \$805,431).

2019-2024. NOAA-RESTORE. T. Sutton (PI), D. Hahn, M. Vecchione, **K.M. Boswell**, H. Bracken-Grissom, R. Eytan, T. Frank, M. Johnston, H. Judkins, R. Milligan, J. Moore, I. Romero, and M. Shivji. Trends and drivers of faunal abundance of the offshore Gulf of Mexico: narrowing the data gap in the Gulf's largest ecosystem component. (Total: \$2,794,147).

Funded Research (36,189,893)

Active Awards (to Boswell: \$2,152,785; Total awards: \$27,094,135)

2018-2020. NOAA-OER. **K.M. Boswell** (PI), J.C. Taylor, C. Lembke, J.K. Horne, T.T. Sutton, K. Abernathy. From aggregations to individuals: Exploring migrating deep sea scattering layers through multiscale-multimode technologies in the Gulf of Mexico. (Total: \$590,110; to Boswell: \$150,000).

2018-2019. Bonefish and Tarpon Trust. **K.M. Boswell** (PI), B.Binder and M.R. Heithaus. Depredation mortality associated with catch-and-release angling on offshore Permit (*Trachinotus falcatus*) spawning aggregations in the Lower Florida Keys. (Total: \$40,000).

2018-2019. MS-AL Sea Grant College Program. G. Stunz (PI) and 20 Co-PIs. Estimating the absolute abundance of Red Snapper in the U.S. Gulf of Mexico. (Total: \$12,000,000; to Boswell: \$554,331).

2017- 2020. *NOAA-Restore*. L .Garrison, M. Soldevilla, K. Mullin, J. Hildebrand, M. Heithaus, J. Kiszka, and **K.M. Boswell**. Trophic Interactions and Habitat Requirements of Gulf of Mexico Bryde's Whales. (Total: \$2,313,310; to FIU: \$331,000).

2017-2019. *NOAA-FIO Restore*. E Peebles (PI), S. Murawski, **K.M. Boswell**, C. Stallings, J. Locascio, J. Vecchio, M. Breibart, D. Chagaris, T. Switzer, C. Lembke. Spawning Habitat and Early-Life Linkages to Fisheries (SHELF). (Total: \$799,999; to Boswell: \$126,498).

2017-2019. *NOAA- NOAA/NMFS Office of Science and Technology- Advanced Sampling Technology Working Group*. C. Thompson (PI), J.C. Taylor, **K.M. Boswell**, G. Pedersen, F. Campanella. Developing acoustic classification methods for reef fish species in the Gulf of Mexico, southeastern US coast, and US Caribbean Sea. (Total: \$218,000; to Boswell: \$130,464).

2015-2018. *NOAA Marine Fisheries Initiative*. J. Locasio (PI) and **K.M. Boswell**. Integration of passive and active acoustic methods for assessing fish spawning aggregations and associated habitat using goliath grouper as a model species. (Total: \$306,921; to Boswell: \$148,530).

2015-2017. *GOMRI Consortium*. T. Sutton (PI), **K.M. Boswell**, et al. Deep-Pelagic Nekton Dynamics of the Gulf of Mexico (DEEPEND). (Total Project: \$9,758,261; to Boswell: \$659,219).

2014-2018. *NOAA Cooperative Research Program*. R.J.D. Wells (PI), **K.M. Boswell**, J.H. Hendon. Post-release survival and basin-wide movements of blacktip sharks (*Carcharhinus limbatus*) in the Gulf of Mexico. (Total Project: \$207,712; to Boswell: \$12,743).

Completed Projects: (Total: \$13,154,762)

2016- 2018. *NOAA-FIO Restore-Florida Centers of Excellence Research Grants Program*. **K.M. Boswell** (PI) and W.F. Patterson. Fishery-independent surveys of reef fishes off Northwest Florida. (Total: \$296,676; to Boswell: \$192,752).

2014-2018. *NOAA- Coral Reef Conservation Program*. **K.M. Boswell** (PI) and D.E. Burkepile. Assess status and location of reef fish spawning aggregations in the Southeast Florida Coral Reef Initiative (SEFCRI) region. (\$335,495).

2015-2018. *North Slope Borough*. R.A. Heintz (PI), **K.M. Boswell**, S. Danielson, L. Sousa, C. Li, J. Moran, B.L. Norcross, A. Pinchuk, J.J. Vollenweider. Ecology of forage fishes in the Arctic nearshore. (Total Project: \$1,700,000; to Boswell: \$429,698).

2014-2017. *North Pacific Research Board*. H. Bi (PI) and **K.M. Boswell**. Framework for mobile deployment of ZOOVIS and DIDSON. (Total Project: 120,315; to Boswell: \$47,990).

2013-2017. *North Pacific Research Board*. **K.M. Boswell** (PI), B.L. Norcross, and C. Li. Arctic coastal ecosystems: Evaluating the functional role and connectivity of lagoon and nearshore habitats. 2013-2015. (Total: \$299,903; to Boswell: \$134,310).

2015-2017. *Exxon Valdez Oil Spill Trustee Council- Prince William Sound Science Center*. **K.M. Boswell** (PI) and A.M. Zenone. Non-invasive assessment of herring in Prince William Sound. (\$111,128).

2015. *Florida Keys Aqueduct Authority*. H.O. Briceño, R. Garcia, P. Gardinali, **K.M. Boswell** and E. Shinn. Design and implementation of dye-tracer injection test with autonomous sampling platform, Cudjoe Key, Florida Keys. (Total: \$125,602).

2016-2017. *Angell Foundation*. M.R. Heithaus (PI), **K.M. Boswell**, A. Duran, J. Fourqurean, A. Shantz. Impacts of Sharks on Coral Reef Ecosystems: Immersive Research Complemented by Innovative Educational Outreach. (Total: \$50,000; to Boswell: \$5,000).

2013-2015. NOAA-NRDA. **K.M. Boswell** (PI). Acoustic Data Processing Program in Support of the NOAA-NRDA Program. (\$859,822).

2013-2015. *Louisiana Department of Wildlife and Fisheries*. J.H. Cowan (PI) and **K.M. Boswell**. A Pilot Study to Assess Fish Biomass and Community Structure in Louisiana's Artificial Reef Planning Areas. (Total: \$350,000).

2014-2015. *Alaska Sea Grant*. J. Straley (PI), B. Watson, S. Atkinson, M. McPhee, A. Friedlaender, **K.M. Boswell**. Recovering humpback whales and the future of Alaska's hatcheries, fisheries and coastal communities. (Total Project: \$128,838).

2014. *Loxahatchee River District*. **K.M. Boswell** and G. Rieucan. Importance of reef complexity on the distribution of reef-associated fishes: contrasting natural and restored reefs. (Total: \$9,791).

2012-2014. *FIU SEED Funds*. **K.M. Boswell** (PI) and D.E. Burkepile. Is what you see really what you get?: Developing non-invasive acoustic monitoring of coral reef fishes as a comparison for *in situ* sampling. (\$24,651).

2011-2014. *Norwegian Research Council*. N.O. Handegard, (PI) I.D. Couzin, M. Hastings, H.E. Karlsen, J. Hovem, **K.M. Boswell**, and A. DeRobertis. Collective behaviour of penned herring: Observing the collective behaviour and investigating the effect of various sound stimuli. (Total Project:\$1,673,389(USD); Boswell Travel Award: \$20,000)

2010-2013. *US Fish and Wildlife Sport Fish Restoration Fund/Louisiana Department of Wildlife and Fisheries*. **K.M. Boswell** (PI), M.E. Kimball and C. Li. Evaluating the effect of water control structures on the accessibility of critical nursery habitats for sport fish and ecologically important estuarine nekton. (\$832,721)

2012-2013. *USACE- Tenera*. J. Hedgepeth (PI), **K.M. Boswell**, D. Nowacek. Preserving Navigation Access for the War Fighter- Development of an Acoustic Marine Life Watch System to Support Corps Channel Maintenance and Enhancement. (Total: \$100,000).

2010-2014. *Louisiana Department of Wildlife and Fisheries*. J.H. Cowan (PI), **K.M. Boswell** and J.R. Rooker. Impact of the oil and dispersants from the Deepwater Horizon incident on benthic and pelagic fish communities in the northern Gulf of Mexico. (Total: \$2,937,249)

2011. *NOAA-Advanced Sampling Technologies Working Group*. J.M. Jech (PI), **K.M. Boswell**, T. Weber, J.C. Taylor and W.W. Wakefield). 3D imaging of fish using multiple dual-frequency identification sonars (DIDSONs). (Total: \$50,320)

2008-2011. *Mariner Energy Inc.* J.H. Cowan (PI) and **K.M. Boswell**. Use of decommissioned petroleum platforms in the northern Gulf of Mexico by fish and fishermen. (Total: \$566,885)

2008-2011. *Louisiana Department of Wildlife and Fisheries*. J.H. Cowan (PI) and **K.M. Boswell**. Can habitat enhancement in Louisiana marsh ponds be used to improve production potential of recreationally and commercially important finfishes and decapod crustaceans? (Total: \$785,494)

2008-2012. *NOAA- MARFIN Program*. **K.M. Boswell** (PI), J.H. Cowan, J.E. Powers and A.J. Fischer). Are Louisiana's shelf-edge banks the center of abundance and historical natural refuge for the Gulf of Mexico's most valuable reef fish? (Total: \$491,875)

2008-2011. *Louisiana Department of Wildlife and Fisheries Artificial Reef Program*. J.H. Cowan (PI), **K.M. Boswell**, K.A. Rose and J.W. Fleeger. Reef fish demographics on Louisiana artificial reefs: the effects of reef size on biomass, size structure, foraging dynamics, and the need to consider reef spatial arrangement to maximize utility. (Total: \$989,068)

2008-2009. *Louisiana Sea Grant Omnibus Program*. **K.M. Boswell** (PI) with J.H. Cowan, J.E. Powers and A.J. Fischer. Are Louisiana's shelf-edge banks the center of abundance and historical natural refuge for the Gulf of Mexico's most valuable reef fish: A pilot study. (Total: \$160,000)

2008-2010. *NOAA-Alaska Fisheries Science Center*. **K.M. Boswell** (PI). Application of imaging sonar to monitor Pacific herring and euphausiid behavior and biomass in Southeast Alaska. (\$15,900).

2009-2010. *NOAA-Alaska Fisheries Science Center*. **K.M. Boswell** (PI). Multi-year analysis of Pacific herring biomass in Southeast Alaska: Comparison between acoustic survey data and population models. (\$19,500)

2010. *NOAA- Sea Grant Shiptime Charter Fund*, in support of MARFIN and SeaGrant Project - Are Louisiana's shelf-edge banks the center of abundance and historical natural refuge for the Gulf of Mexico's most valuable reef fish (\$35,000)

2009. *University of Iceland*. **K.M. Boswell** (PI). Spatial mapping of spawning aggregations of Icelandic cod. (\$4,500)

2008. *NOAA-Sea Grant Shiptime Charter Fund*, in support of MARFIN and SeaGrant Project - Are Louisiana's shelf-edge banks the center of abundance and historical natural refuge for the Gulf of Mexico's most valuable reef fish (\$35,000) (\$10,484)

2007-2008. *NOAA Undersea Research Program*. R.A. Heintz (PI), **K.M. Boswell**, J. Strayley, J.J. Vollenweider and M.K. Cox. Application of DIDSON sonar to understand the avoidance behavior of Pacific herring (*Clupea pallasii*) attacked by different predators. (\$28,140)

2007. *Louisiana Sea Grant- Program Development*. **K.M. Boswell** (PI) and RF Shaw. Hydroacoustic ground-truthing of the temporal and vertical abundances of post-larval and juvenile fish in a Louisiana tidal pass. (\$10,000)

2007. *University of West Florida- K.M. Boswell (PI). Escambia East Small Area Artificial Reef Site Side-Scan Survey. (\$7,500)*

Other Publications and Technical Reports

Boswell, K.M., A.M. Zenone, and W.S. Pegau. 2018. Non-lethal sampling: In situ estimation of juvenile herring sizes. *Exxon Valdez Long-Term Herring Research and Monitoring Program Final Report (Exxon Valdez Oil Spill Trustee Council Project 15120111-D), Exxon Valdez Oil Spill Trustee Council, Anchorage, Alaska.*

Bi, Hongsheng, and **K.M. Boswell**. Framework for mobile deployment of the ZOOplankton Visualization and Imaging System (ZOOVIS) and Dual-frequency Identification SONAR system (DIDSON). NPRB Project 1419 Final Report. 42 pp.

Boswell, K.M., B.L. Norcross, C. Li, ^FM.B. Barton, J.J. Vollenweider, R.A. Heintz, L. Sousa, C. George. 2016. Arctic coastal ecosystems: Evaluating the functional role and connectivity of lagoon and nearshore habitats. NPRB Project 1229 Final Report. 268 pp.

Vollenweider, J. J., R.A. Heintz, **K.M. Boswell**, B.L. Norcross, C. Li, ^FM. B. Barton. 2016. Arctic coastal ecosystems: Evaluating the functional role and connectivity of lagoon and nearshore habitats. Final Report, August 2016, BOEM OCS Study 2016-066.

Marras, S., T. Noda, J.F. Steffensen, M.B.S. Svendsen, J. Krause, A.D.M. Wilson, R.H. Kurvers, J. Herbert-Read, **K.M. Boswell** and P. Domenici. (2016) Sailfish: the fastest fish in the world? Atlas of Science. <http://atlasofscience.org/sailfish-the-fastest-fish-in-the-world/#more-8020>

Demer, D.A., L. Berger, M. Bernasconi, E. Bethke, **K.M. Boswell**, D. Chu, R. Domokos, *et al* . (2015) Calibration of acoustic instruments. ICES Cooperative Research Report No. 326. 133 pp.

^FRodriguez-Pinto I., ^VD.A. Jacques, ^VG. Rieucan, and ^{*}**K.M. Boswell**. (2014) Importance of reef complexity on the distribution of reef-associated fishes: contrasting natural and restored reefs. Loxahatchee River District. 21p.

Boswell K.M., ^GM.B. Barton, R.A. Heintz J.R. Moran, A Robertson, J.J. Vollenweider, B.L. Norcross and C. Li. 2013. Arctic Coastal Ecosystem Survey (ACES): Report of nearshore sampling activities during summer of 2013. Annual Report submitted to Bureau of Ocean Energy Management, Alaska Region. 21p.

Boswell K.M., R.A. Heintz, J.R. Moran and J.J. Vollenweider. 2012. Arctic Coastal Ecosystem Survey (ACES): Report of nearshore sampling activities during summer of 2012. Annual Report submitted to Bureau of Ocean Energy Management, Alaska Region. 21p.

Cowan, Jr. J.H., **K.M. Boswell**, ^GK.A. Simonsen, ^GC.R. Saari, and ^GD. Kulaw. 2012. Working Paper for Red Snapper Data Workshop (SEDAR 31). SEDAR31, DW03. SEDAR, North Charleston, SC. 49 pp.

Rice S.D., J.R. Moran, J.M. Straley, **K.M. Boswell**, and R.A. Heintz. 2011. Significance of whale predation on natural mortality rate of Pacific herring in Prince William Sound, Exxon Valdez Oil Spill Restoration Project Final Report (Restoration Project: 100804), National Marine Fisheries Service, Juneau, Alaska.

Heintz, R.A., J.R. Moran, J.J. Vollenweider, J.M. Straley, **K.M. Boswell**, and J. Rice. 2010. Humpback whale predation and the case for top-down control of local herring populations in the

Gulf of Alaska. Alaska Fisheries Science Center Quarterly Report, National Marine Fisheries Service. *Featured Article*.

Heintz R.A., **K.M. Boswell** and J. Moran. DIDSON sonar reveals how herring respond to predators. NOAA Spotlight Report, May 2008.
http://www.oar.noaa.gov/spotlite/2008/spot_herring.html

Cowan J.H., **K.M. Boswell** and Y.C. Allen. 2007. Determination of Geotechnical and Biological Properties in the Louisiana Artificial Reef Program's Reef Planning Areas: West Cameron, East Cameron, and Eugene Island. Final Report to the Louisiana Department of Wildlife and Fisheries. 48 p. + 3 Appendices.

Boswell K.M. 2006. Quantifying Changes in Fish Habitat Use in Coastal Waters of Louisiana, USA A Hydroacoustic Approach. Ph.D. Dissertation, Louisiana State University. December 2006. 170 p. <http://etd.lsu.edu/docs/available/etd-11102006-161848/>

Cowan J.H., C.A. Wilson, R.F. Shaw, M. Lapeyre, Y.C. Allen, T. Birdsong, **K.M. Boswell**, D. Lindquist, P.S.D. MacRae and M. Russell. 2006. Study Phase II. Identifying essential fish habitats in Barataria Bay: Quantifying habitat value to species of recreational importance. Final Report to the Louisiana Department of Wildlife and Fisheries. 304 p.

Wilson C.A., M.W. Miller, Y.C. Allen, **K.M. Boswell** and D.L. Nieland. 2006. The effect of depth, location, and habitat type, on relative abundance and species composition of fishes associated with petroleum platforms and Sonnier Bank in the northern Gulf of Mexico. U.S. Dept. of the Interior, Minerals Mgmt. Service, OCS Study MMS 2005-010. 85p.

Wilson C.A., Y.C. Allen, **K.M. Boswell**, M. Miller and H. Roberts. 2005. Louisiana's Artificial Reef Program: Determination of geotechnical and biological properties on the Louisiana Artificial Reef Program's Reef Planning Areas. South Marsh Island 77 and 146. Final Report to the Louisiana Artificial Reef Program, Louisiana Department of Wildlife and Fisheries. 67 p. + 3 appendices.

Wilson C.A., Y.C. Allen, **K.M. Boswell**, M.W. Miller and H. Roberts. 2004. Louisiana's Artificial Reef Program: Determination of Geotechnical and Biological Properties in the Louisiana Artificial Reef Program's Reef Planning Areas: Ship Shoal. Final report to the Louisiana Artificial Reef Program, Louisiana Department of Wildlife and Fisheries. 59 p. + 3 appendices.

Invited and Departmental Seminars

Boswell K.M. Multi-scale interactions in marine ecology revealed through advanced technologies. Florida Atlantic University, Harbor Branch Oceanographic Institute. March 12, 2018.

Boswell K.M. Multi-scale interactions in marine ecology: insights through advanced technologies. Texas A&M University- Galveston, Marine Biology Department. October 2, 2017.

Rieucou, G., and **K.M. Boswell**. Acoustics in the study of marine animal ecology and behavior: From "observing" to "understanding". Rookery Bay Research Reserve, Naples, FL. February 21, 2017.

Boswell K.M. Integrating advanced technologies to improve our understanding of multi-scale interactions in marine ecology: Insights through advanced technologies. Florida International University, Biological Sciences Department. September 7, 2016.

Boswell K.M. Application of autonomous research tools for marine research. Florida International University, Biological Sciences Department. December 7, 2015.

Boswell K.M. Ocean Drones: Developing advanced tools for marine research. SEAS Ocean Life Seminar Series, Key Largo Community Center, April 18, 2014.

Boswell K.M. Evaluating fine-scale nekton dynamics in shallow-estuarine ecosystems using multi-beam acoustics. Monterey Bay Aquarium Research Institute, January 15, 2014.

Boswell K.M. The application of imaging sonars for problems in marine ecology. Stanford University, Hopkins Marine Station, January 14, 2014.

Boswell K.M. Predator-prey interactions and schooling behavior revealed through the lens of a sonar. AZTI-Technalia, San Sebastian, Spain, October 17, 2012.

Boswell K.M. Use of high-resolution multibeam imaging sonars to study interactions of estuarine nekton. University of South Carolina, Baruch Marine Field Laboratory, August 2, 2012.

Boswell K.M. Predator-prey interactions and schooling behavior revealed through the lens of a sonar. Scripps Institute of Oceanography, October 19, 2011.

Boswell K.M. Predator-prey interactions and schooling behavior revealed through the lens of a sonar. Department of Biological Sciences, Georgia Southern University, October 5, 2011.

Boswell K.M. Multi-scale approaches to fisheries ecology: combining traditional and emerging techniques. Department of Biological Sciences, Florida International University. April 13, 2011.

Boswell K.M. Multi-scale approaches to fisheries ecology: combining traditional and emerging techniques. Department of Biology, University of North Florida. January 14, 2011.

Boswell K.M. Predator-prey interactions and schooling behavior revealed through the lens of a sonar. School of Fisheries and Oceans, University of Alaska Fairbanks: Juneau Campus. November 19, 2010.

Boswell K.M. Predator-prey interactions and schooling behavior revealed through the lens of a sonar. School of Fisheries and Oceans, University of Alaska Fairbanks: Fairbanks Campus. November 17, 2010.

Boswell K.M. Behavioral interactions in the sea revealed through the lens of a sonar. Department of Oceanography and Coastal Science, Louisiana State University. October 29, 2010.

Boswell K.M. Ecological insights at the scale of action: an acoustic approach. Department of Oceanography and Coastal Science, Louisiana State University. February 5, 2010.

Boswell K.M. Examining ecological interactions in estuarine and coastal systems: an acoustic approach. Department of Life Sciences, Texas A&M University-Corpus Christi. February 4, 2010.

Boswell K.M. The overwhelming life of an overwintering herring. Department of Renewable and Natural Resources, Louisiana State University. March 19, 2009.

Boswell K.M. Spying on the fishes: the reality of life as a herring. Stennis Space Center, Department of Marine Science, University of Southern Mississippi. February 6, 2009.

Boswell K.M. Sounding for EFH: Estimating fish biomass in shallow estuarine waters. Gulf Coast Research Laboratory, University of Southern Mississippi. February 5, 2009.

Boswell K.M. The use of an imaging sonar to describe fish behavior and distribution in shallow water habitats. National Marine Fisheries Service, Alaska Fisheries Science Center, Auke Bay Laboratories. January 16, 2008.

Boswell K.M. Estimating acoustic fish biomass in shallow estuarine waters. University of Florida, Department of Fisheries and Aquatic Sciences. December 7, 2007.

Boswell K.M. Visualizing and quantifying fish habitat use in and movement in shallow estuarine waters. Texas Parks and Wildlife Department. November 21, 2007.

Boswell K.M. Assessing fish habitat utilization and movement in shallow estuarine waters with the DIDSON. Alden Research Laboratory. October 22, 2007.

Boswell K.M., M.P. Wilson and J.H. Cowan. Analyzing DIDSON data in Echoview: a semi-automated approach. American Fisheries Society Meeting, DIDSON Workshop. September 2, 2007.

Boswell K.M., M.P. Wilson and J.H. Cowan. A semi-automated approach to estimate fish size, abundance and behavior from DIDSON (Dual-frequency IDentification SONar) data. American Fisheries Society Meeting, Recent Advances in Hydroacoustic Assessment of Fish Populations in Marine and Riverine Environments Symposium. September 2-7, 2007.

Boswell K.M. An acoustic approach to quantifying changes in fish habitat use associated with shallow water habitats in coastal waters of Louisiana. Sonar Data Pty., Tasmania, Australia. Sept 10, 2006.

Selected Contributed Presentations (Since 2010)

Sutton, T.T., R. Milligan, A. Cook, J. Moore, **K.M. Boswell**. Evidence of dramatic and persistent declines in meso- and bathypelagic fish abundances in the Gulf of Mexico after the Deepwater Horizon oil spill. Ocean Sciences Meeting, Portland, Oregon, 11-16 February 2018.

Chenoweth, E.M., J.M. Straley, A.S. Friedlaender, J.A. Burrows, **K.M. Boswell**. Calculating the most efficient prey patches for humpback whales. Biennial Conference on the Biology of Marine Mammals, Halifax, Nova Scotia, Canada, 23-27 October, 2017.

Kiszka, J.J., ^PM.A. D'Elia, ^FB. Binder, **K.M. Boswell**, G. Boussarie, M.R. Heithaus. Seamount affects mesopelagic biomass and sperm whale (*Physeter macrocephalus*) distribution in the south-eastern Caribbean. Biennial Conference on the Biology of Marine Mammals, Halifax, Nova Scotia, Canada, 23-27 October, 2017.

^FBinder, B.M., J. Locascio, **K.M. Boswell**. An Integrated Approach to Develop *in situ* Target Strength – Length Relationships for Atlantic Goliath Grouper (*Epinephelus itajara*). 70th Gulf and Caribbean Fisheries Institute, Mérida, Yucatán, MEX, 6-10 November, 2017.

^FBinder, B.M., J.C. Taylor, **K.M. Boswell**. Integrating Acoustic Surveys and FSA Research: Challenges and Lessons Learned. *Invited Speaker – Joint GCFI-SEAC Symposium – 70th Gulf and Caribbean Fisheries Institute, Mérida, Yucatán, MEX, 6-10 November, 2017.*

Boswell, K.M., ^PG. Rieucou, ^PM.A. D'Elia, J.D. Warren, T.T. Sutton. Complex Vertical Commuting of Mesopelagic Scattering Layers: Implications of Taxonomic-Based Migration Decisions on Global Biological Fluxes. 147th American Fisheries Society Annual Meeting, Tampa, FL. 21-24 August 2017.

^FWhite, A., W.F. Patterson, **K.M. Boswell**. Informing Fishery-Independent Reef Fish Surveys through Advanced Survey Techniques. 147th American Fisheries Society Annual Meeting, Tampa, FL. 21-24 August 2017.

Wilson, E., W.W. Wakefield, J.C. Taylor, **K.M. Boswell**. Using Didson Imaging Sonars to Track North Pacific Rockfish Movements in Response to Underwater Survey Vehicles. 147th American Fisheries Society Annual Meeting, Tampa, FL. 21-24 August 2017.

^GBinder, B.M., ^PG. Rieucou, J.C. Taylor, **K.M. Boswell** Hydroacoustic Surveys Reveal an Anthropogenically Mediated Environmental Disturbance and its Impact on Coastal Fish Community Dynamics. 147th American Fisheries Society Annual Meeting, Tampa, Florida. 21-24 August 2017.

^GBarton MB, **K.M. Boswell**, S. Litvin, R.A. Heintz, J.J. Vollenweider, B.L. Norcross. Tissue turnover rates and trophic enrichment of carbon and nitrogen isotopes in a common Arctic nearshore fish. ESSAS Open Science Meeting, Tromso, Norway. 14 June 2017.

K.M. Boswell, ^PG. Rieucou, M.E. Kimball, D. Allen. Predator density and water-level mediate prey utilization of an intertidal estuarine highway; GEER Conference, Coral Springs, FL, 17-20 April 2017.

Pegau, W.S., R. Bochenek, **K.M. Boswell**, T. Branch, K.Gorman, R. Heintz, P. Hershberger, H. Hoover, S. Moffitt, P. Rand, F. Sewall, R. Thorne, J.J. Vollenweider, S. Wilde. Herring research and monitoring in Prince William Sound, Alaska. ICES/PISCES Symposium on drivers of dynamics of small pelagic fish resources. Victoria, B.C. Canada, 6-11 March, 2017.

Moran, J. **K.M. Boswell**, J. Straley. Humpback whales ruin a perfectly good overwintering strategy for Pacific herring in Alaska. ICES/PISCES Symposium on drivers of dynamics of small pelagic fish resources. Victoria, B.C. Canada, 6-11 March, 2017.

deRada, S., B. Penta, T.T. Sutton, M. Johnston, R. Milligan, C. Easson, A. Cook, **K.M. Boswell**, C. Lembke, D. English, C. Hu. Physical-bio-optical modeling in the Gulf of Mexico: analysis of water mass relationships to pelagic habitat. ASLO Annual Aquatic Sciences Meeting, Honolulu, HI, 26 February 2017.

Boswell, K. M., ^PG. Rieucou, ^PM.A. D'Elia, J.D. Warren, T.T., Sutton. Examining complex vertical movements of mesopelagic scattering layers: from taxonomic-based migration decisions to global biological fluxes. ASLO Annual Aquatic Sciences Meeting, Honolulu, HI, 26 February 2017.

^PG. Rieucou, ^PM.A. D'Elia, J.D. Warren, T.T., Sutton, **K.M. Boswell**. DEEPEND: Complex vertical movements of mesopelagic scattering layers: from taxonomic-based migration decisions to global biological fluxes. Gulf of Mexico Oil Spill and Ecosystem Science Meeting. New Orleans, LA, 6-9 February, 2017.

^FBinder, B.M., ^PG. Rieucan, J.C. Taylor, **K.M. Boswell**. Characterizing the Community Response to an Environmental Disturbance: With Implications for Goliath Grouper Aggregations in Jupiter, Florida. 2nd Annual CRCP Learning Exchange, Dania Beach, FL. 26 January 2017.

^FBarton M.B., **K.M. Boswell**, N. Lemoine, R.A. Heintz, J.J. Vollenweider, L.D. Sousa. Environmental drivers of spatio-temporal changes in Arctic nearshore fish communities. Alaska Marine Science Symposium, Anchorage, AK, 23 January 2017.

^FBarton M.B., **K.M. Boswell**, J.J. Vollenweider, R.A. Heintz, B.L. Norcross. Interconnectivity and structure in Arctic nearshore food webs around Barrow, AK. Alaska Marine Science Symposium, Anchorage, AK, 23 January 2017.

^FBarton M.B., **K.M. Boswell**, J.J. Vollenweider, R.A. Heintz, J.R. Moran. Latitudinal dependence of body condition, growth rate, and stable isotopes of juvenile capelin (*Mallotus villosus*) in the Bering and Chukchi Seas. Alaska Marine Science Symposium, Anchorage, AK, 23 January 2017.

Heintz, R.A., J.J. Vollenweider, **K.M. Boswell**, C. Li, B.L. Norcross, ^FM.B. Barton, A. Frothingham, B. Gray. Arctic coastal ecosystems: Evaluating the functional role and connectivity of lagoon and nearshore habitats. Alaska Marine Science Symposium, Anchorage, AK, 23 January 2017.

^UK.A. Abel, ^FM.B. Barton, **K.M. Boswell**. Composition of suspended particulate matter in Arctic nearshore habitats. Alaska Marine Science Symposium, Anchorage, AK, 23 January 2017.

Bi, Hongsheng and **K.M. Boswell**. Co-deployment of a zooplankton imaging system and sonar imaging system for forage species. Alaska Marine Science Symposium, Anchorage, AK, 23 January 2017.

Boswell, K.M., W.F. Patterson. Informing fishery-independent reef fish surveys through advanced survey techniques; FIO RESTORE Annual Conference, St. Petersburg, FL, October 20-21, 2016.

Boswell, K.M. G. Pedersen, J.C. Taylor and A.M. Zenone. Examining wide band frequency responses of common reef fishes. International Coral Reef Symposium, Honolulu, HI, June 19-24, 2016.

Warren, J.D., **K.M. Boswell** and T.T. Sutton. Using multiple-frequency, broadband acoustic backscatter to identify and quantify the organisms composing the deep sea mesopelagic scattering layers in the Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Tampa, FL. 1 Feb 2016.

^GBarton M.B., **K.M. Boswell**, N. Lemoine, R.A. Heintz, J.J. Vollenweider, S. Mosher. Partitioning variance in environmental drivers of Arctic nearshore fish community composition. Alaska Marine Science Symposium, Anchorage, AK. 25 Jan 2016.

^UBrownstein A., ^GM.B. Barton, J.R. Moran, J. Straley, and **K.M. Boswell**. Stable isotope analysis of humpback whales (*Megaptera novaeangliae*) to confirm diet during winter foraging. Alaska Marine Science Symposium, Anchorage, AK. 25 Jan 2016.

Mosher S.J. J.J. Vollenweider, R.A. Heintz, B. Laurel, ^GM.B. Barton, A. Robertson, M. Callahan, S. George, L. Sousa, F. Mueter, **K.M. Boswell**. Climate-induced changes in Arctic cod and saffron cod distributions may alter Arctic trophic ecology. Alaska Marine Science Symposium, Anchorage, AK. Jan 20, 2016.

Sutton, T.T., A.B. Cook, **K.M. Boswell**, H. Bracken-Grissom, (+20 authors). DEEPEND: Deep-Pelagic Nekton Dynamics of the Gulf of Mexico, 2015 Deep-Sea Biology Symposium, Aveiro, Portugal, 31 Aug, 2015.

Sutton, T.T., A.B. Cook, **K.M. Boswell**, H. Bracken-Grissom, (+20 authors). Understanding deep-pelagic ecosystem variability in an age of increasing deep-ocean commercial activity: A Gulf of Mexico case study and new research initiative (DEEPEND). 2015 Deep-Sea Biology Symposium, Aveiro, Portugal, 31 Aug, 2015.

Wakefield W.W., J.C. Taylor, D.A. Jacques, **K.M. Boswell**. Fish avoidance of remote sampling methods in untrawlable habitats. 2015 American Fisheries Society Meeting, Portland, OR. Aug 18, 2015.

Boswell K.M., G. Pedersen, J.C. Taylor. Examining the wide band frequency responses of common reef fishes- comparisons between models and measures. 2015 ICES Symposium on marine ecosystem acoustics. Nantes, France, May 25-28.

Hedgpeeth J., **K.M. Boswell**, B. Benson, S. Udall. A real-time modular program for tracking and classification of large marine organisms using multibeam sonar. 2015 ICES Symposium on marine ecosystem acoustics. Nantes, France, May 25-28.

Simonsen K.A., **K.M. Boswell**, J.H. Cowan. Contrasting diel distribution patterns of reef-associated fishes around standing and toppled oil and gas platforms in the northern Gulf of Mexico. 2015 ICES Symposium on marine ecosystem acoustics. Nantes, France, May 25-28.

Taylor J.C., E. Ebert, **K.M. Boswell**, W.W. Wakefield, ^VD.A. Jacques. Marine ecosystem acoustics in untrawlable habitats. 2015 ICES Symposium on marine ecosystem acoustics. Nantes, France, May 25-28.

Warren J.D., ^PM.A. D'Elia, **K.M. Boswell**. Acoustic measurement and classification of migrating epipelagic and mesopelagic scattering layers in the Gulf of Mexico. 2015 ICES Symposium on marine ecosystem acoustics. Nantes, France, May 25-28.

^F**Binder, B.M.**, K.M. Boswell, J.C. Taylor (2015) Integrating Local Knowledge With Fisheries Technology to Study Fish Spawning Aggregations in South Florida. 37th Association of Marine Laboratories of the Caribbean Symposium, Willemstad, Curacao, 18-22 May 2015

Copeman L.A., B.J. Laurel, R.A. Heintz, J.J. Vollenweider, and **K.M. Boswell**. Ontogenetic variability in trophic biomarkers of saffron cod (*Eleginus gracilis*) from the western Arctic and northern Pacific. 2015 ASLO Aquatic Sciences Meeting, Granada, Spain, Feb 22-27, 2015.

Boswell K.M., ^PM.A. D'Elia, J.D. Warren and T.T. Sutton. Temporal variations in the vertical distribution of deep scattering layers in the Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Houston, TX. Feb 17, 2015.

^GBarton M., **K.M. Boswell** R.A. Heintz, J.J. Vollenweider, J.R. Moran, and A. Robertson. Temporal scales of Arctic fish community restructuring in Barrow, AK. FIU Biology Research Symposium, North Miami, FL. Jan 31, 2015.

^UMallikarachchi H., J.C. Trexler, and **K.M. Boswell**. The impact of submerged vegetation on predator-prey interactions. Southern Division Meeting of the American Fisheries Society, Charleston South Carolina, Jan 22-26, 2015.

^GBarton M., **K.M. Boswell**, R.A. Heintz, J.R. Moran, J.J. Vollenweider, and A. Robertson. Temporal and spatial variability of nearshore fish communities in three Arctic nearshore habitat types in Barrow, AK. Alaska Marine Science Symposium, Anchorage, AK, Jan 19-22, 2015.

Li C. and **K.M. Boswell**. Summertime exchange of water between an Arctic lagoon. Alaska Marine Science Symposium, Anchorage, AK, Jan 19-22, 2015.

Robertson A., G. Divoky, **K.M. Boswell**, R.A. Heintz, J.J. Vollenweider, J.R. Moran, and ^GM. Barton. Energetic value of prey species utilized by Black Guillemots (*Cepphus grylle*) on Cooper Island, an Arctic barrier island. Alaska Marine Science Symposium, Anchorage, AK, Jan 19-22, 2015.

^GZenone A.M., **K.M. Boswell**. Effects of Reef Characteristics on Associated Nektonic Communities and the Development of Novel Reef Survey Methods. Prince William Science Center Science Night, Cordova, AK. Aug 20, 2014

Handegard N.O., A. DeRobertis, G. Rieucan, **K.M. Boswell**, and G. Macaulay. The reaction of a captive herring school to playbacks of a noisy and a conventional research vessel. Joint Workshop of the ICES-FAO [WGFTFB] and [WGFAST], New Bedford, May 5, 2104.

^GBarton M.B., **K.M. Boswell**, R.A. Heintz, J.R. Moran, J.J. Vollenweider. Latitudinal variation of trophic dynamics and energy allocation in Capelin (*Mallotus villosus*). FIU Biology Research Symposium, North Miami, FL. Feb 1, 2014.

^GZenone A., **K.M. Boswell**, J.C. Taylor, G. Pederson, D. Burkelpile and A. Stamper. Acoustics in Shallow-Coastal Habitats: Is what you see really what you get? FIU Biology Research Symposium, North Miami, FL. Feb 1, 2014.

^UMallilarachchi H., A. Hijuelos, **K.M. Boswell** and J. Trexler. Role of vegetation structure on predator-prey interactions and foraging behavior of fish in the Everglades canals. FIU Biology Research Symposium, North Miami, FL. Feb 1, 2014.

Robertson A., R.A. Heintz, **K.M. Boswell**, J.R. Moran, J.J. Vollenweider and ^GM.B. Barton. Short Term Variation in Nearshore Fish Communities in Barrow, Alaska. Alaska Marine Science Symposium, Anchorage, AK. Jan 20-24, 2014.

Sutton T.T. and **K.M. Boswell**. The NOAA NRDA Gulf of Mexico Offshore Fish and Nekton Program: rationale, design and sampling/sensing synopsis. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, AL. Jan 26-29, 2014.

Boswell K.M., J.J. Vollenweider, R.A. Heintz, J.R. Moran, J. Thedinga, S. Johnson and D. Neff. Evaluating the Temporal Variability in the Nearshore Fish Communities of the Arctic Ocean: Is It Dependent on Sea Ice Extent? 28th Lowell Wakefield Fisheries Symposium, Anchorage, AK. Mar 26-29, 2013.

Moran J.R., R.A. Heintz, J.J. Vollenweider and **K.M. Boswell**. Latitudinal Variation in Energy Allocation of Juvenile Capelin. 28th Lowell Wakefield Fisheries Symposium, Anchorage, AK. Mar 26-29, 2013.

Boswell K.M., N.O. Handegard, S. Leblanc, D. Tjøstheim and I.D. Couzin. Predator-prey interactions and fish schooling behavior revealed through the lens of a sonar. Joint meeting of the Acoustical Society of America and American Fisheries Society, Seattle, WA. May 25-17, 2011.

M.W. Waive, J. Hightower, **K.M. Boswell**, and B. Reich. Assessing Spawning Runs of Anadromous Fishes Using a Bayesian Analysis of Split-Beam and DIDSON Count Data. Annual meeting of the Southern Division of the American Fisheries Society, Tampa, FL January 13-16, 2011.

Campbell M.D., K.A. Rose, **K.M. Boswell** and J.H. Cowan Jr. Individual-based modeling of fish population dynamics of an artificial reef community: Effects of habitat quantity and degree of refuge provided. American Fisheries Society Meeting, Pittsburg, PA. September 13-17, 2010.

Bonvillain C.P., B.T. Halloran, **K.M. Boswell**, W.E. Kelso and D.A. Rutherford. Acute physicochemical effects from Hurricane Gustav in a large river-floodplain system. American Fisheries Society Meeting, Pittsburg, PA. September 13-17, 2010.

Handegard N.O., **K.M. Boswell**, S. Leblanc and I. Couzin. Observing school dynamics in situ using acoustics. ICES WGFASST Annual Meeting, San Diego, CA. April 26-30, 2010.

Boswell K.M., M.K. Cox, J.J. Vollenweider and R.A. Heintz. Contrasting biomass estimates of schooling herring derived with an imaging sonar and traditional echosounder. Alaska Marine Science Symposium, Anchorage, Alaska. Jan 18-22, 2010.

Boswell K.M., J.C. Taylor and J.H. Cowan. Observations at the “scale of action”: insights to ecological processes from hydroacoustic applications in shallow estuaries. Coastal and Estuarine Research Federation, Portland, Oregon. Nov 1-7, 2009.

Teaching (S=Spring; F=Fall; Su=Summer)

Marine Biology and Oceanography (OCB3043;3CR- Undergraduate) (S2012, S2013, S2014, S2015, F2015, S2017, S2018)
 Marine Field Ecology (OCB4104C- 4CR- Undergraduate) (F2012, F2013, S2015, S2016, F2016, F2017)
 Biological Oceanography at Sea- Bioacoustics (Graduate) (Su2014)
 Principles of Bioacoustics (Graduate) (S2012)
 Current topics in Fish and Invertebrate Ecology (Graduate) (S2011)
 Acoustics Workshop for Professionals (F2014, S2015)

Quantitative analysis of acoustic data, Instituto Nacional de Pesca in Mazatlan, MX. Oct. 2014
 Quantitative analysis of acoustic data, Louisiana Department of Wildlife and Fisheries, Grand Isle, LA. April 2015

Visiting Scientists Supported

J.D. Warren, Stony Brook University, 2015-present
 D.A. Jacques, National Oceanic and Atmospheric Administration, 2014-present
 G. Rieucau, Norwegian Institute of Marine Research 2012-2013

Postdoctoral Mentorship

Camilo Roa, 2018- present
 Marta A. D’Elia, 2012-present
 Guillaume Rieucau- 2016- 2017 (Now Faculty member at LUMCON)
 Erin Labrecque- 2016-2017
 Laura Bhatti Catano, 2015 (Now Faculty member at University of Missouri)

Graduate Student Mentorship

Graduated Students

Adam Zenone, (MSc) Florida International University (2015)
 Mark Barton (PhD), Florida International University (2018)

Current Graduate Students:

Ben Binder, (MSc) Florida International University (expected Spring 2018)
 Ivan Rodriguez-Pinto (PhD), Florida International University (Expected Spring 2019)
 Allison White (PhD), Florida International University (Expected Spring 2021)

Committees Served:

Mike Bush (PhD; Advisor: Trexler), Florida International University (Expected 2018)
 Jessica Carde (PhD; Advisor: Papastamtiou), Florida International University (Expected 2022)
 John Gatto (PhD; Advisor: Trexler), Florida International University (Expected 2018)
 Melanie Esch (PhD; Advisor: Harborne), Florida International University (Expected 2022)
 Edmund Hughes (PhD; Advisor: Naar), University of South Florida (Expected 2018)

Completed Graduate Committees

Jessie Blanchard (PhD; Advisor: Rehage), Florida International University (Changed Programs)
 Diana Churchill (PhD; Advisor: Heithaus), Florida International University (2016)
 Alain Duran (PhD; Advisor: Burkepile), Florida International University (Expected 2018)
 Grace Harwell (MSc), Louisiana State University (2013)
 Greg Hill (MSc; Advisor: Rehage), Florida International University (2017)
 Garrett Johnson (MSc; Advisor: Shoup), Oklahoma State University (2017)
 Ann Hijuelos (MSc), Florida International University (2012)
 Kirsten Simonsen (PhD), Louisiana State University (2013)
 Mike W. Wayne (MSc), North Carolina State University (2010)
 Andrew Repp (PhD), Florida International University (Departed Program)
 Abraham Smith (PhD; Advisor: Heithaus), Florida International University (Expected 2018)

Undergraduate Mentorship (36 completed)

David Block, MAST @ FIU Student, 2016-present
 Robert Darcy, Marine Biology, 2015-present
 Andrea Nodal, Marine Biology, 2016-present

Awards, grants and fellowships awarded to students

Undergraduate

Katrina Abel, FIU Student Government Association Travel Award; Alaska Marine Science Symposium (\$1,500, 2017)

Alexandra Brownstein: Best Undergraduate Presentation Award- Alaska Marine Science Symposium (\$150, 2015)

Mark Kleese: FIU Student Government Association Travel Award; Ocean Sciences Meeting (\$750, 2016)

Andrea Nodal: FIU Student Government Association Travel Award; Alaska Marine Science Symposium (\$2,000, 2018)

Graduate

Benjamin Binder- (MS Student): Gulf & Caribbean Fisheries Institute Student Travel Scholarship (\$1700, 2015); Wildlife Foundation of Florida (\$1000, 2015); BBC Student Government Association Travel Award (\$500, 2015; \$1000, 2016)

Aubree M. Zenone- (MS Student): FIU Marine Sciences Research Award (\$5000; 2014); Department of Biology, Best Thesis Award (2015); Visiting Scholar- University of Iceland (2013)

Mark B. Barton- (PhD Student): BBC Student Government Association Travel Award (\$500; 2016, 2017,2018); BBC Student Government Association Travel Award (\$500; 2015, 2016, 2017)

Ivan Rodriguez-Pinto- (PhD Student): Tinker Foundation Travel Award (\$2000; 2014); Gordon Research Conference Travel Award (\$1500; 2014); NSF Bridge to the Doctorate Fellowship, Florida International University (2013-2015); McKnight Fellowship (2017-2018).

Professional Activities and Public Service

Atlantic Coastal Cooperative Statistics Program- Florida Representative (2015-present)
 ICES Working Group on Fisheries Acoustics Science and Technology- US Rep. (2010 present)
 Co-Chair (2018) Ocean Sciences Meeting: Illuminating the Twilight Zone:
 Understanding Mesopelagic Communities, Processes, and Ecosystem Services Before
 Potential Large-Scale Resource Extraction
 Co-Chair (2017) Joint GCFI-SEAC Symposium on Acoustic Technologies to Improve Reef Fish
 Ecosystem Surveys.
 Co-Chair (2016) Ocean Sciences Meeting- Biophysical processes at the Arctic-Subarctic
 interface
 Co-Chair (2016) International Coral Reef Symposium- Acoustic, optical, and chemical
 seascapes and their application to restoration and management
 ICES Sponsored Workshop-Principles and methods of broadband/wideband technologies-
 (one of three US representatives invited to participate) (2016)
 ICES Study Group on Calibration of Acoustic Equipment- Participant/Author (2013-2015)
 Chair (2013-2017) FIU Biological Sciences Symposium, Department of Biological
 Sciences
 Co-Chair (2011-2013) FIU Marine Sciences Seminar Series; Department of Biological Sciences

SouthEast Acoustics Consortium (seac.fiu.edu)- Founding Member

- Hosted inaugural event at FIU (2012)
- Co-organized and facilitated consortium conference and workshops
- Fundraising for conference:
 - 2012: Florida Sea Grant (\$500), North Carolina Sea Grant (\$500), Kongsberg (\$1,000)
 - 2014: Florida Sea Grant (\$500), North Carolina Sea Grant (\$500), Kongsberg (\$1,000)
 - 2016: Kongsberg (\$2,000), Myriax (\$1000), QPS (\$500)

Proposal Reviewer:

Chesapeake Bay Fisheries Research Program
 Exxon Valdez Oil Spill Trustee Council
 Hudson River Foundation
 NOAA NWFSC Acoustics Program
 NSF Biological Oceanography (2014- declined due to conflict, 2016)
 North Pacific Research Board
 Oregon Sea Grant

Panelist: Atlantic Coastal Cooperative Statistics Program

- Atlantic States Proposal Review Program- 25 proposals: October 1-3, 2014
- Atlantic States Proposal Review Program- 23 proposals: September 22-24, 2015
- Atlantic States Proposal Review Program- 23 proposals: September 21-22, 2016
- Atlantic States Proposal Review Program- 23 proposals: September 18-20, 2017

Texas Sea Grant College Program
United States Department of Agriculture Small Business Innovation Research
West Coast and Polar Regions Undersea Research Center

Journal Reviewer

Bulletin of Marine Science (3); Canadian Journal of Fisheries and Aquatic Sciences (4); Coastal Shelf Research; Conservation Biology (2); Deep Sea Research II (2); Ecosphere (1); Estuarine Coastal and Shelf Science (5); Environment; Fisheries Bulletin; Fisheries Research; Journal of Experimental Marine Biology and Ecology; Journal of Sea Research; Limnology and Oceanography Methods (1); North American Journal of Fisheries Management; Marine and Coastal Fisheries; Marine Ecology Progress Series (2); Marine and Freshwater Research; PLoS One (2); Transactions of the American Fisheries Society (4)

Conference Judge

Alaska Marine Sciences Symposium (since 2011, 2012, 2013)
Ocean Sciences Meeting (2014, 2016, 2017, 2018)
Biology Symposium (2013, 2014, 2015, 2016)

University and Community Service

Center Affiliations and interdisciplinary activities:

- Institute for Water and Environment
- Marine Education and Research Initiative for the Florida Keys
- Southeastern Environment Research Center Affiliated Faculty

University Ambassador- Fall Commencement (2011)
CAS Faculty Participant- Fall Commencement (2012)
Banner Marshall- Spring Commencement (2013)
CAS Faculty Participant- Fall Commencement (2013)
FIU Facilities Expansion Proposal- BBC Pier Development (2014)
SEAS Ocean Life Series Seminar in Key Largo (2014)
BBC Campus Strategic Planning Committee (2014-2015)

Departmental Service

Animal Physiologist Search Committee Chair (2017-2018)
Marine Ecology Search Committee (2015; 3 positions)
Marine Biology Curriculum Committee (2012-Present)
Marine Science Development Committee (2012-Present)
Biology Research Symposium Chair (2012-Present)
Human Anatomy Search Committee (2011; 1 position)
Marine Sciences Seminar co-chair (2011-2013)

Community Service

FIU Marine Sciences Program Event- Fort Lauderdale Boat Show (2016)
Barrow Community Science Saturday Event (2014, 2015)
Cooper City Elementary Science Night (2014)
FIU Fishing Tournament Volunteer (2014)
SEAS Florida Bay Appreciation Day Outreach Booth (2014)
SEAS FIU Fishing Tournament Touch Tank Exhibit (2014)
Miami Billfish Tournament Volunteer (2014, 2015)
Youth Soccer Coach (2011- 2014)
Assistant Den Leader- Jupiter Farms Cub Scout Pack 157 (2016)

Professional Memberships

American Society of Limnology and Oceanography; Acoustical Society of America; Coastal and Estuarine Research Federation; Gulf and Caribbean Fisheries Institute; Southeast Acoustics Consortium; Working Group on Fisheries Acoustics Science and Technology

Media Coverage

- Students to embark on Arctic mission through Northwest Passage- FIU News (7-10-2018)
<https://news.fiu.edu/2018/07/4-students-to-embark-on-arctic-mission-through-northwest-passage/124081>
- Why, and how, to conserve our oceans- CASE News (June 12, 2018)
<http://casenews.fiu.edu/index.php/2018/06/11/phd-candidate-mark-barton-explains-why-and-how-to-conserve-our-oceans/>
- The Ocean's 'Twilight Zone' Faces Fishing Threat- Oceans Deeply (Feb 26, 2018)
<https://www.newsdeeply.com/oceans/articles/2018/02/26/the-oceans-twilight-zone-faces-fishing-threat>
- Scientific team selected to conduct independent abundance estimate of red snapper in Gulf of Mexico (Nov 17, 2017)
<http://masgc.org/news/article/scientific-team-selected-to-conduct-independent-abundance-estimate-of-red-s>
- Scientists Are Listening to Fish to Figure Out How to Save Them- Oceans Deeply (June 27, 2017)
<https://www.newsdeeply.com/oceans/articles/2017/06/27/scientists-are-listening-to-fish-to-figure-out-how-to-save-them>
- Team Predator: Researchers go far and deep to protect endangered sharks (March 1, 2017)
<https://news.fiu.edu/2017/03/team-predator-researchers-go-far-and-deep-to-protect-endangered-sharks/109189>
- Arctic expedition for FIU students through Northwest Passage- FIU NEWS (2016)
<http://news.fiu.edu/2016/10/arctic-expedition-will-embark-with-4-fiu-students-on-board/104791>
- From Playboy to Polar Bears: A Fashion Photographer's Journey to Document Climate Science in Northernmost Alaska- Smithsonian.com (2016)
<http://www.smithsonianmag.com/>
- Marine scientists go deep in Gulf research- FIU NEWS (2016)
<https://news.fiu.edu/2016/06/marine-scientists-go-deep-in-gulf-research/101778>
- Delta Sounds Connections- Prince William Sound Science Center (2014)- Acoustics: a non-lethal approach to studying fish in Prince William Sound
- Delta Sounds Connections- Prince William Sound Science Center (2015)- Herring in Shallow Water: Applying Technology in Nearshore Habitat
- Why the Little Fish Matter (<https://www.youtube.com/watch?v=KGsEHXZqOYM>)
 Presented at following film festivals: AAAS Arctic, AOOS Film Festival, Colorado Environmental Film Festival, Whale Fest, American Geophysical Union Cinema 2015
- FIU showcases tech innovations at eMerge Americas 2015- FIU NEWS (2015)
<http://news.fiu.edu/2015/05/fiu-showcases-tech-innovations-at-emerge-americas-2015/88140>
- NPR Radio Show- Ecology of arctic lagoons, WKBR Barrow, Alaska (2014)
- Daily Planet- Discovery Channel (<http://www.soundmetrics.com/About-Us/Press/Discovery-Channel-Captures-ARIS-Sonar-Studying-Fis>)
- Video abstract for Current Biology Paper, Handegard et al., 2012:
http://www.youtube.com/watch?v=e_NVDz7XzIo&feature=player_embedded
- Marine scientist to explore Arctic shorelines, habitats- FIU NEWS (2012)
<https://news.fiu.edu/2012/11/marine-scientist-to-explore-arctic-shorelines-habitats/48318>
- Research to expand knowledge of fish populations in a post-oil spill gulf- FIU NEWS (2015)
<https://news.fiu.edu/2015/10/research-to-expand-knowledge-of-fish-populations-in-a>

[post-oil-spill-gulf/92910](#)

Grad students embark on research cruise in Gulf of Mexico- FIU NEWS (2014)

<https://news.fiu.edu/2014/07/grad-students-embark-on-research-cruise-in-gulf-of-mexico/79536>

FIU students descend on Aquarius- FIU NEWS (2014)

<https://news.fiu.edu/2013/11/fiu-students-descend-on-aquarius/70179>

Awards and Fellowships

CSIRO Frohlich Fellow, Australia (2019)

FIU Faculty Senate Excellence in Research and Creative Activities Award Nomination (2017, 2018)

FIU Top Scholar Award (2017)

FIU College of Arts and Sciences Excellence in Research Faculty Award, 2016

ASLO Young Scientist Travel Award- Ocean Sciences Meeting, 2014

Belle Baruch Marine Laboratory Visiting Scientist Award, 2012 \$3,000

American Fisheries Society- Parent Society Travel Award: 2007 (San Francisco, CA)

American Fisheries Society- Southern Division Travel Award: 2007 (Memphis, TN)

Louisiana State University Distinguished Dissertation Award, Nominee: 2006

Best Student Paper, Gulf and Caribbean Fisheries Institute, Xel-Ha, Mexico: 2005

Best Student Poster, Graduate Student Association Intellectual Gumbo, LSU: 2002

Rockefeller State Wildlife Scholarship- LSU: 2002, 2003

Department of Oceanography and Coastal Sciences, LSU, Enhancement Award: 2001- 2003

William P. Ricker Scholarship awarded for leadership-TAMU: 1997-1998

National Collegiate Student Government Award-TAMU: 1998

Eagle Scout- Boy Scouts of America