

Robert Durborow, Ph.D.

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Education

A.B., Biology, Lafayette College, Easton, PA, 1978

M.S., Fisheries Biology, Louisiana State University, 1981

Ph.D., Fisheries and Allied Aquacultures, Auburn University, 1986

Extension Focus

Educate residents of Kentucky and surrounding states in all aspects of aquaculture using workshops, field trials and demonstrations, farm visits, publications, and fish disease diagnosis

Research Focus

Dr. Durborow performs and directs research in the KSU College of Agriculture, Community, and the Sciences including projects involving the KSU FDDL, treatment efficacy, medicated feed accessibility, increasing shelf life of processed fish, and occupational safety and health for aquaculturists and Gulf Coast seafood workers.

Teaching Curriculum

Fish Diseases class – 3 credits - AQU 411 (undergraduate course) and AQU 511 (graduate course) taught in even years online in spring semester and on campus in fall semester. Fish Diseases Laboratory – 1 credit - AQU 410 (for undergraduates) and AQU 510 (for graduate students) taught in fall semester of even years.

Current and Recent Projects

Translational research using data collected from fish disease diagnostic laboratory cases for treatment efficacy studies and in a mobile responsive clinical fish health database created in 2022 with USDA research funds

Translational survey-based research analyzing the feasibility of providing access to medicated feed to underserved fish farmers in Kentucky and surrounding states

Prevention and treatment of columnaris (*Flavobacterium columnare*) bacterial infections in largemouth bass using various salt concentrations

Occupational health and safety of Gulf Coast seafood workers study funded by CDC National Institute on Occupational Safety and Health through University of Florida and a study on aquaculture workers' health and safety through University of Kentucky with NIOSH funding

Selected Publications

- Durborow R.M., T.J. McKay, S. Atkinson, J. Kelso, and McKay, T.W. 2022. Mobile Responsive Clinical Fish Health Database. *Presented at:* World Aquaculture Society, San Diego, CA, March 2022. Abstract published in meeting Proceedings.
- McKay, Tifani W., J. Kelso, T.J. McKay, R.M. Durborow. 2022. Evaluating Treatment Preferences for Fish Disease Treatments in Kentucky. *Presented at:* Association of Research Directors Symposium, Atlanta, GA, April 2022; World Aquaculture Society, San Diego, CA, February 2022; World Aquaculture Society, San Antonio, TX, August 2021. Abstracts published in meeting Proceedings.
- Kane, A., R. Brooks, K Dunleavy, E. Coker, S. Gorucu, R. Durborow, and M. Myers. 2021. Preview of non-fatal, injuries and illnesses in commercial seafood workers in Florida, Alabama, and Mississippi. *Published In:* Proceedings of the 2021 International Society for Agricultural Safety and Health (ISASH) Conference. June 21 – 24, 2021 (virtual).
- Flickinger, D.L., G.A. Costa, D.P. Dantas, D.C. Proença, F.S. David, R.M. Durborow, P. Moraes-Valenti, W.C. Valenti. 2020. The budget of carbon in the Culture of the Amazon river prawn (*Macrobrachium amazonicum*) and tambaqui (*Colossoma macropomum*) farmed in monoculture and in integrated multitrophic Systems. Aquaculture Reports, Special Issue on Aquaculture Research in Brazil. Elsevier.
<https://www.sciencedirect.com/science/article/pii/S2352513419303254>
- Mitchell, K.M. and R.M. Durborow. 2019. Largemouth bass diseases. Chapter in *Largemouth Bass Aquaculture*. James H. Tidwell, Shawn Coyle, and Leigh Anne Bright, editors. 5M Publishing, Benchmark House, Sheffield, UK. 274 pp.
- Poudel, A., R. Durborow, K. Mitchell, and S. Dasgupta. *In preparation*. Antibiotic susceptibility Variability among colonies from bacterial isolates from fish disease cases. Journal of Aquatic Animal Health.
- Durborow, R., M. Lange, S. Coyle and J. Tidwell. *In Preparation*. Reducing mortalities due to *Flavobacterium columnare* during feed-training of largemouth bass, *Micropterus salmoides*.

Myers, M.L. and R.M. Durborow*. 2018. Keynote address given by Durborow on Aquaculture Safety and Health at IFISH 5, 5th International Fishing Industry Safety and Health Conference Proceedings, St. John's, Newfoundland, Canada, June 12, 2018.

Durborow, R.M., M.L. Myers, and A.J. Kane. 2018. Clam mariculture safety in South Carolina: A case study at IFISH 5, 5th International Fishing Industry Safety and Health Conference Proceedings, St. John's, Newfoundland, Canada, June 11, 2018.

Myers, M.L., R.M. Durborow, and A.S. Kane. 2018. Gulf of Mexico seafood harvesters: part 1. Occupational injury and fatigue risk factors. Safety doi:10.3390/safety4030031 <http://www.mdpi.com/2313-576X/4/3/31>

Myers, M.L., R.M. Durborow, and A.S. Kane. 2018. Gulf of Mexico seafood harvesters, part 2: Occupational health-related risk factors. Safety doi:10.3390/safety4030027 <http://www.mdpi.com/2313-576X/4/3/27>

Myers, M.L., R.M. Durborow, and A.S. Kane. 2018. Gulf of Mexico seafood harvesters: part 3: Potential occupational risk reduction measures. Safety <https://doi.org/10.3390/safety4030033> www.mdpi.com/2313-576X/4/3/33/pdf

Durborow, R.M., Roman Kuchta, and Tomáš Scholz. 2015. Paddlefish Diseases (Chapter 8; pp. 227 - 265). In: S.D. Mims and W. Shelton (Eds.), *Paddlefish Aquaculture*, Life Sciences, Wiley-Blackwell Publishing, John Wiley & Sons, Inc., Hoboken, New Jersey, 299 p.

Durborow, R.M. 2014. Management of aquatic weeds (Chapter 13) pp. 281-314. In: B. S. Chauhan and G. Mahajan (Eds.), *Recent Advances in Weed Management*. Springer Science+Business Media, New York. 411 p.

Myers, M. and R. Durborow. 2012. Aquacultural safety and health (pp.385-400). Chapter 15 In: Health and Environment in Aquaculture (open access book; 428p.). E. Carvalho, G. David and R. Silva, eds. Publisher: InTech, Rijeka, Croatia. April 11, 2012. <http://www.intechopen.com/books/health-and-environment-in-aquaculture>

Durborow, R.M. 1997. Aquacultural hazards. *In*: Safety and Health in Agriculture, Forestry and Fisheries. Langley, R.L., R.L. McLymore, Sr., W.J. Meggs, and G.T. Roberson, eds. Government Institutes, Rockville, Maryland. pp. 659-679.