

## Bradley Michael Richardson

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### EDUCATION

**Doctor of Philosophy, Mississippi State University** **2016 - 2020**

*Major – Forest Resources (Wildlife, Fisheries, & Aquaculture)*

*Minor – Secondary Education*

*Advisors – Michael E. Colvin and David J. Wise*

*Dissertation – Improved monitoring and decision-making to manage atypical *Aeromonas hydrophila* (aAh) in catfish aquaculture ponds*

**Master of Science, Murray State University** **2013 - 2015**

*Major – Biology*

*Advisor – Michael B. Flinn*

*Thesis - A dietary comparison of the reintroduced alligator gar *Atractosteus spatula* and three sympatric gar relatives (family: Lepisosteidae) in the Clarks River, Kentucky*

**Bachelor of Science, Murray State University** **2010 - 2013**

*Major – Aquatic Biology/Fisheries*

*Minor – Chemistry*

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### TECHNICAL PUBLICATIONS

Older CE, Yamamoto FY, Griffin MJ, **Richardson BM**, Waldbieser GC, Reifers JG, Goodman PM, Ware C, Gatlin DM III, and Wise DJ. 2023. Effect of probiotic and prebiotic supplementation on intestinal microbiota and resistance to *Edwardsiella ictaluri* infection in channel catfish (*Ictalurus punctatus*) following florfenicol administration. *Journal of Fish Diseases* (*in review*)

Yamamoto FY, Griffin MJ, **Richardson BM**, Stilwell JM, Romano N, Goodman PM, Reifers JG, and Wise DJ. 2023. *Dietary iron supplementation did not affect production performance of hybrid catfish (*Ictalurus punctatus* × *I. furcatus*) juveniles, but increased hematocrit levels, and may have decreased disease resistance during *Edwardsiella ictaluri* challenge.* *Journal of Fish Diseases* (*in review*)

Older CE, **Richardson BM**, Wood M, Waldbieser GC, Ware C, Griffin MJ, and Ott BD. 2023. *Evaluating nanopore sequencing for microbial community characterization in catfish pond water.* *Journal of the World Aquaculture Society* 2023:1-13.  
<https://doi.org/10.1111/jwas.13002>

Kumar G, Engle C, van Senten J, Sun L, Hedge S, and **Richardson BM**. 2023. *Resource productivity and costs of aquaculture practices: Economic-sustainability perspectives from U.S. catfish farming*. *Aquaculture*: 739715. <https://doi.org/10.1016/j.aquaculture.2023.739715>

**Richardson BM**, Reifers JG, Walker CM, Byars TS, Mischke CC, Griffin MJ, and Wise DJ. 2023. *Evaluation of a snail trap prototype for monitoring the intermediate gastropod hosts of Bolbophorus spp. in commercial catfish ponds of the southeastern United States*. *Journal of the World Aquaculture Society* 54:1247-1259. <https://doi.org/10.1111/jwas.12962>

Mischke CC, **Richardson BM**, Tiwari A, Griffin MJ, Rehman JU, Ashfaq MK, Nanayakkara NPD, Khan IA, Wise DJ. 2022. *Copper toxicity to the ghost rams-horn snail Biomphalaria havanensis*. *North American Journal of Aquaculture* 85(1):116-122. <https://doi.org/10.1002/naaq.10279>

Johnston AE, Shavaliar MA, Scribner KT, Soto E, Griffin MJ, Waldbieser GC, **Richardson BM**, Winters AD, Yun S, Baker EA, Larson DL, Kiupel M, Loch TP. 2022. *First Isolation of a Herpesvirus (Family Alloherpesviridae) from Great Lakes Lake Sturgeon (Acipenser fulvescens)*. *Animals* 12(23):3230. <https://doi.org/10.3390/ani12233230>

Mischke CC, **Richardson BM**, Wise DJ, Tiwari A. 2023. *Rotenone has little effect on water quality, phytoplankton, zooplankton, or macroinvertebrates in aquaculture nursery ponds*. *North American Journal of Aquaculture* 85:64-73. <https://doi.org/10.1002/naaq.10276>

Armwood AR, Griffin MJ, **Richardson BM**, Wise DJ, Ware C, and Camus AC. 2022. *Pathology and virulence of Edwardsiella tarda, Edwardsiella piscicida, and Edwardsiella anguillarum in channel (Ictalurus punctatus), blue (Ictalurus furcatus), and channel x blue hybrid catfish*. *Journal of Fish Diseases* 45(11):1683-1698. <https://doi.org/10.1111/jfd.13691>

López-Porras A, Griffin MJ, Ware C, **Richardson BM**, Greenway TE, Rosser TG, Aarattuthodiyi S, and Wise DJ. 2022. *Cross-protective efficacy of a live-attenuated Edwardsiella ictaluri vaccine against heterologous Edwardsiella piscicida isolates in channel and channel x blue catfish hybrids*. *Journal of Fish Diseases* 45(7):1001– 1010. <https://doi.org/10.1111/jfd.13623>

**Richardson BM**, Mischke CC, Rosser TG, Woodyard ET, Ware C, Wise DJ, and Griffin MJ. 2022. *Activation of Heneguya ictaluri actinospores by non-ictalurid fish species, with implications for management of proliferative gill disease in catfish aquaculture*. *North American Journal of Aquaculture* 84:313-324. <https://doi.org/10.1002/naaq.10242>

Tumolo BB, **Richardson BM**, Lebeda DD, and Flinn MB. 2022. *Phytoplankton survival in hindgut of invasive Silver Carp (Hypophthalmichthys molitrix)*. *American Midland Naturalist* 187:29-38. <https://doi.org/10.1674/0003-0031-187.1.29>

Stillwell JM, Rosser TG, Woodyard ET, **Richardson BM**, Lopez-Porras A, Leary JH, Mischke CC, Camus AC, and Griffin MJ. 2021. *Characterisation of myxozoan fauna of western mosquitofish, Gambusia affinis (Baird and Gerard) (Cyprinodontiformes: Poeciliidae), inhabiting experimental catfish ponds in Mississippi, USA*. *Systematic Parasitology* 2021:1-19. <https://doi.org/10.1007/s11230-021-09987-z>

López-Porrás A, Griffin MJ, Armwood AR, Camus AC, Waldbieser GC, Ware C, **Richardson BM**, Greenway TE, Rosser TG, Aarattuthodiyil S, and Wise DJ. 2021. *Genetic variability of Edwardsiella piscicida isolates from Mississippi catfish aquaculture with an assessment of virulence in channel and channel x blue hybrid catfish*. Journal of Fish Diseases, 44(11), 1725-1751. <https://doi.org/10.1111/jfd.13491>

**Richardson BM**, Griffin MJ, Colvin ME, Wise DJ, Ware C, Mischke CC, Greenway TE, Byars TS, Hanson LA, and Lawrence ML. 2021. *Using quantitative polymerase chain reaction (qPCR) and occupancy models to estimate atypical Aeromonas hydrophila (aAh) prevalence in catfish*. Aquaculture 530: 735687. <https://doi.org/10.1016/j.aquaculture.2020.735687>

**Richardson BM**, Flinn MB. 2019. *Increased probability and efficiency of gar capture using multi- versus monofilament gill nets*. Journal of Fish and Wildlife Management 10(2): 551-562; e1944-687X. <https://doi.org/10.3996/112018-JFWM-101>

### MANUSCRIPTS IN PREPARATION

Mischke CC, **Richardson BM**, Slifka CM, Balami S, Wood M, Tiwari A, Rosser TG, Griffin MJ, and Wise DJ. *How do repeated sublethal copper doses affect Marsh Rams-horn snail growth, reproduction, and the snails in the subsequent generation?* Target Journal: North American Journal of Aquaculture.

Yamamoto FY, Huang J, Suarez-Barazeta CC, Craig S, Older CE, **Richardson BM**, Santana TM, Griffin MJ, Reifers JG, Goodman PM, and Gatlin DM III. *Exploring the nutritional value of corn fermented protein as a replacement for soybean meal in channel catfish (Ictalurus punctatus) juvenile feeds: impacts on production performance, intestinal health, and disease resistance*. Target Journal: Aquaculture.

Mischke CC, **Richardson BM**, Older CE, Wood M, Ware C, Koshy MC, Lowe JW, Waldbieser GC, Griffin MJ, and Wise DJ. *Multiple, low-dose copper sulfate (CuSO<sub>4</sub>\*5H<sub>2</sub>O) treatment effects on water quality and bacterial, phytoplankton, and zooplankton communities in catfish aquaculture ponds*. Target Journal: North American Journal of Aquaculture.

**Richardson BM**, ul-Huda N, Ware C, Camus AC, Older CE, Yamamoto FY, Goodman PM, Reifers JG, Walker CM, Stilwell JM, Marancik DP, Wise DJ, and Griffin MJ. *No Influence of Fingerling Stocking Size on Proliferative Gill Disease Severity in Farm-raised Channel Catfish (Ictalurus punctatus)*. Target Journal: North American Journal of Aquaculture.

**Richardson BM**, Mischke CC, Wood M, Slifka CM, Balami S, Rosser TG, Griffin MJ, and Wise DJ. *Effects of mate availability on egg production in the marsh ramshorn snail, Planorbella trivolvis, and ghost ramshorn snail, Biomphalaria havanensis*. Target Journal: Journal of Molluscan Studies.

Rosser TG, Woodyard E, and **Richardson BM**. *Morphometric and genetic analysis for evaluating closely related species of the genus Clinostomum*. Target Journal: Systematic Parasitology.

### FUNDED PROJECTS

US Animal and Plant Health Inspection Service. (2023). *Apple Snail (Pomacea maculata) integrated pest management tactics for crawfish and rice production*. **BM Richardson** (PI), C Mullen (Co-PI), W Hart-Cooper (Co-PI). \$413,391

US Animal and Plant Health Inspection Service. (2022). *Apple Snail (Pomacea maculata) integrated pest management tactics for crawfish and rice production*. **BM Richardson** (PI). \$418,000

US Environmental Protection Agency. (2019). *Developing Bankfull Regional Curves: A First Step to Restore Streams Functionality in Mississippi*. JJ Ramirez-Avila (PI), SL Ortega-Achury (Co-PI), JL Martin (Co-PI), and **BM Richardson** (Co-PI). \$259,043

## GRANTS AND AWARDS

Best Paper in the North American Journal of Aquaculture 2023 – American Fisheries Society	2023
3 <sup>rd</sup> Place, Best Student Oral Presentation (\$100) – Mississippi Chapter, American Fisheries Society	2020
Preparing Future Faculty Program Graduate – Mississippi State University	2019
Ernest A. Gluesing Outstanding Wildlife and Fisheries Ph.D. Student (\$100) – Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University	2019
David Nabi Memorial Award – Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University	2019
Mississippi AFS Excellence in Public Outreach – Mississippi Chapter, American Fisheries Society	2019
3-Minute Thesis Grand Champion Finalist (\$250) – Office of the Graduate School, Mississippi State University	2018
Best Student Abstract/Travel Award (\$400) – Fish Culture Section, American Fisheries Society	2018
Best Doctoral Student Oral Presentation – Graduate Student Research Symposium, Office of the Graduate School, Mississippi State University	2018
Best Student Abstract/Travel Award (\$400) – Fish Culture Section, American Fisheries Society	2017
Outstanding Graduate Researcher – Department of Biology, Murray State University	2015
Innovative Graduate Research Assistantship (\$8,000) – Murray State University	2014
Larry D. Pharris Memorial Wildlife Biology Scholarship (\$2,000) – Department of Biology, Murray State University	2014
Outstanding Graduate Poster – Murray State University Sigma Xi Chapter	2014
Undergraduate Instars Fellowship – Society for Freshwater Science	2013
Undergraduate Research Fellowship (\$2,000) – Office of Undergraduate Research and Scholarly Activities, Murray State University	2012
Dr. Alfred M. Wolfson Memorial Scholarship (\$2,000) – Department of Biology, Murray State University	2012
Undergraduate Research Grant (\$500) – Office of Undergraduate Research and Scholarly Activities, Murray State University	2011

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## TEACHING AND MENTORSHIP

**Graduate Committees**

Celene M. Slifka, MSc, College of Veterinary Medicine, Mississippi State University.  
Prospective Graduation: January 2024

**Teaching Assistantships**

WFA 4313 – Fisheries Management. Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University. 3 credit hours. (2019)  
WFA 4133 – Fisheries Science. Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University. 3 credit hours. (2018)  
WFA 3133 – Applied Aquatic and Terrestrial Ecology. Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University. 3 credit hours. (2017, 2018)  
WFA 4173/6173 – Fish Physiology. Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University. 3 credit hours (2016)  
BIO 101 – Introduction to Biology (Lab Instructor). Department of Biology, Murray State University. 4 credit hours (2014)  
BIO 221 – Zoology. Department of Biology, Murray State University. 4 credit hours. (2013, 2014, 2015)

**Guest Lectures**

*R – Advanced Data Analysis and Visualization* – Summer DIS (NWAC). Summer 2023  
Department of Pathology and Population Medicine, College of Vet. Med., Mississippi State University.  
*R: Syntax and Applications* – Summer DIS (NWAC). Department of Pathology and Population Medicine, College of Vet. Med., Mississippi State University. Summer 2022  
*Macroinvertebrate Function in Stream Health* – Stream Recon. Department of Civil and Environmental Engineering, Mississippi State University. Fall 2019  
*Length-Weight Relationships* – Fisheries Science. Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University. Spring 2019  
*Hatchery Creek: Beyond Stream Restoration* – Hydro-environmental Analysis. Department of Civil and Environmental Engineering, Mississippi State University. Fall 2018  
*Biological Indices: How, What, and Why Macroinvertebrates are Good Stream Indicators* – Hydro-environmental Analysis. Department of Civil and Environmental Engineering, Mississippi State University. Fall 2018

**Mentorships** (1 – graduate, 2 – undergraduate, 3 – high school)

Lorena Chavarro Chau <sup>1</sup>	Mississippi State University	2019
Iveth Navarro Torres <sup>1</sup>	Mississippi State University	2019
Shanika Musser <sup>2</sup>	Mississippi State University	2018-2019
Taylor Noble <sup>2</sup>	Mississippi State University	2018
Donavan McCranie <sup>3</sup>	Columbus High School	2018
Jeremiah Ramsey <sup>3</sup>	Columbus High School	2018
Miracle Watson <sup>3</sup>	Columbus High School	2018
Claire Ray <sup>2</sup>	Mississippi State University	2017
Jennifer Deignan <sup>2</sup>	Mississippi State University	2017
Tori Savors <sup>3</sup>	Columbus High School	2017-2018
Hunter Brooks <sup>3</sup>	Columbus High School	2017-2018
David Alavarez <sup>3</sup>	Columbus High School	2017
Wynter Brooks <sup>3</sup>	Columbus High School	2017

Amiyah Porter <sup>3</sup>	Columbus High School	2017
Nathan Tillotson <sup>2</sup>	Murray State University	2014-2015

**Other Teaching Experience**

Substitute Teacher	Century Jr./Sr. High School, Ullin, IL 62992	2016
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**OUTREACH AND SERVICE**

Eastern Fish Health Workshop		
	<i>Special Session Co-organizer – “Big Data/Omics in Fish Health”</i>	2024
Aquaculture America 2024		
	<i>Workshop Organizer – R: Syntax and Applications</i>	2024
Louisiana State University Entomology Department – Invited Speaker		
	<i>Fish, bugs, snails, and stats: a case study in avoiding the pigeonhole</i>	2023
University of Texas – Tyler, Biology Department – Invited Speaker		
	<i>Ecology and aquaculture: making a mark and remaining marketable</i>	2023
9 <sup>th</sup> International Symposium on Aquatic Animal Health		
	<i>Special Session Co-organizer</i>	2022
46 <sup>th</sup> Annual Meeting of the Mississippi Chapter of the American Fisheries Society		
	<i>Student Moderator</i>	2020
Conference of Research Workers in Aquatic Diseases		
	<i>Student Moderator</i>	2019
Mississippi State University Student Sub-unit of the American Fisheries Society		
	<i>President</i>	2018-2019
Kidz Outdoor Zone – Jonesboro, IL		
	<i>Presentation - Critters in the Creek</i>	2018
Department of Wildlife, Fisheries, and Aquaculture Graduate Student Association		
	<i>Department Representative</i>	2018
Mississippi State University Student Sub-unit of the American Fisheries Society		
	<i>Presentation - Three States and A Thousand Connections</i>	2017
Mississippi State University Student Sub-unit of the American Fisheries Society		
	<i>President-elect</i>	2017-2018
Mississippi Region V Science Fair		
	<i>Judge</i>	2017-2020
Mississippi State University Undergraduate Research Symposium		
	<i>Judge</i>	2017-2020

Land Between the Lakes “Cool and Crawly Critter Day” <i>Exhibit – “Fun Fishes of Kentucky”</i>	2014
Murray State University Chapter of The Wildlife Society <i>Presentation - Searching for Morphological Differences in Four Sympatric Gar Species</i>	2013

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## TECHNICAL PRESENTATIONS

(\* denotes presenting author, if not first author; † denotes undergraduate student)

Older CE, Yamamoto FY, Griffin MJ, **Richardson BM**, Waldbieser GC, Reifers JG, Goodman PM, Ware C, Gatlin III DM, and Wise DJ. *Evaluating the ability of prebiotics and probiotics to reduce Edwardsiella ictaluri-associated mortality in channel catfish (Ictalurus punctatus) after antibiotic administration*. Eastern Fish Health Workshop 2023 (March 2023; Atlantic Beach, NC)

Slifka CM, Waldbieser GC, Ware C, **Richardson BM**, Wood M, Balami S, Rose D, Walker CM, Older CE, Mischke CC, Wise DJ, Griffin MJ, and Rosser TG. *Using quantitative PCR in detection of Planorbella trivolvis and Biomphalaria havanensis from catfish pond water samples*. Eastern Fish Health Workshop 2023 (March 2023; Atlantic Beach, NC)

Rose D, Older CE, **Richardson BM**, Ware C, Lewis M, Waldbieser GC, Khoo LH, Tekedar H, Perkins A, Hanson LA, Rosser TG, Balami S, Slifka S, Wise DJ, and Griffin MJ. *Analysis of microbial community diversity in channel catfish ponds: a comprehensive study from 'the Delta'*. Eastern Fish Health Workshop 2023 (March 2023; Atlantic Beach, NC)

**Richardson BM**, ul-Huda N\*, Ware C, Camus A, Older CE, Yamamoto F, Goodman P, Reifers JG, Wise DJ, Marancik D, and Griffin MJ. *Effect of fingerling size on proliferative gill disease severity in channel catfish*. Eastern Fish Health Workshop 2023 (March 2023; Atlantic Beach, NC)

**Richardson BM**, Wilson BE, Rosser TG, Griffin MJ, and Roda AL. *Toward integrated pest management of the invasive apple snail Pomacea maculata in crayfish, rice, and catfish production*. Aquaculture America 2023 (February 2023; New Orleans, LA)

**Richardson BM**, Wood M, Walker CM, Reifers G, Byars TS, Mischke CC, Griffin MJ, and Wise DJ. *A simple, low-cost trap for monitoring snail populations in catfish aquaculture ponds*. Aquaculture America 2023 (February 2023; New Orleans, LA)

Older CE, **Richardson BM**, Wood M, Waldbieser GC, Ware C, Griffin MJ, and Ott BD. *Evaluating nanopore sequencing for microbial community characterization in catfish pond water*. Plant and Animal Genome Conference 30 (January 2023; San Diego, CA) [Poster and Presentation]

**Richardson BM**, Mischke CC, Wood M, Slifka CM, Balami S, Griffin MJ, and Wise DJ. *Differences in egg production of marsh ramshorn snail Planorbella trivolvis and ghost ramshorn snail Biomphalaria havanensis based on mate availability*. Aquaculture America 2023 (February 2023; New Orleans, LA)

**Richardson BM**, Colvin ME, Griffin MJ, Mischke CC, Greenway TE, and Wise DJ. A stochastic model to investigate atypical *Aeromonas hydrophila* disease dynamics in catfish aquaculture ponds. 9th International Symposium on Aquatic Animal Health, Santiago, Chile. September 2022 – Virtual.

Nguyen JA, **Richardson BM**, Woodyard ET, Stilwell JM, Slifka CM, Rose D, McAllister C, Marcquenski S, and Rosser TG. A morphological and molecular comparison of *Clinostomum* metacercariae and adults of the United States. 9th International Symposium on Aquatic Animal Health, Santiago, Chile. September 2022.

Slifka CM, Waldbieser GC, Ware C, **Richardson BM**, Wood M, Balami S, Rose D, Walker CM, Older CE, Mischke CC, Wise DJ, Griffin MJ, and Rosser TG. What's in the water: identifying *Planorbella trivolvis* and *Biomphalaria havanensis* DNA using real-time qPCR. 9th International Symposium on Aquatic Animal Health, Santiago, Chile. September 2022.

Rose D, Older CE, **Richardson BM**, Ware C, Lewis M, Waldbieser GC, Khoo LH, Tekedar H, Perkins A, Hanson LA, Rosser TG, Wise DJ, and Griffin MJ. Diversity of microbial community between medicated and non-medicated catfish ponds in the Mississippi Delta. 9th International Symposium on Aquatic Animal Health, Santiago, Chile. September 2022.

Armwood AR, Griffin MJ, **Richardson BM**, Wise DJ, Ware C, Camus AC. Comparative Pathogenicity and Cross-protective Potential of *Edwardsiella tarda*, *Edwardsiella piscicida*, and *Edwardsiella anguillarum* in Channel, Blue, and Channel ♀ x Blue ♂ Hybrid Catfish. 9th International Symposium on Aquatic Animal Health, Santiago, Chile. September 2022 – Virtual.

Slifka CM, Waldbieser GC, Ware C, **Richardson BM**, Wood M, Balami S, Rose D, Walker CM, Older CE, Mischke CC, Wise DJ, Griffin MJ, and Rosser TG. A quantitative PCR assay to detect *Planorbella trivolvis* and *Biomphalaria havanensis* from catfish pond water samples. American Fisheries Society - Fish Health Section Student Seminar Series. July 2022 - Virtual

**Richardson BM**, Walker CM, Reifers G, Wood M, Byars TS, Mischke CC, Griffin MJ, and Wise DJ. Snail trap prototype for use in monitoring trematode parasite risk in catfish aquaculture ponds. Catfish Farmers of America Annual Convention and Research Symposium, New Orleans, LA. March 2022.

**Richardson BM**, Griffin MJ, Liles M, Lawrence M, and Wise DJ. Protective effects of vaccine and killed culture against atypical *Aeromonas hydrophila* (aAh) in *Ictalurus punctatus*. Conference of Research Workers in Animal Diseases, December 2020 - Virtual (COVID-19).

**Richardson BM**, Griffin MJ, Mischke CC, Greenway TE, Colvin ME, Waldbieser GC, Liles M, Hanson LA, Lawrence M, and Wise DJ. Haplotype and genomic variation in atypical *Aeromonas hydrophila* (aAh) of channel catfish aquaculture in the US. Conference of Research Workers in Animal Diseases, December 2020 - Virtual (COVID-19).



**Richardson BM**, Griffin MJ, Waldbieser GC, Mischke CC, Greenway TE, Colvin ME, Wise DJ, Khoo LH, Lawrence M, and Liles M. Genomic analysis of atypical *Aeromonas hydrophila* (aAh) from catfish aquaculture in the southeastern United States with evidence of haplotype shifts from diagnostic case submissions. AFS FHS Online Fish Health Seminar Series, May 2020. (Replaced 45<sup>th</sup> Annual Eastern Fish Health Symposium – COVID-19)

**Richardson BM**, Colvin ME, Griffin MJ, Mischke CC, Greenway TE, and Wise DJ. Leaving nothing on the table: using structured decision-making to evaluate management decisions in catfish aquaculture. Southern Division of the American Fisheries Society, Little Rock, Arkansas. February 2020.

**Richardson BM**, Mischke CC, Rosser TG, Woodyard ET, Khoo LH, Wise DJ, and Griffin MJ. Presence of non-ictalurid fish can reduce transmission of *Henneguya ictaluri* to channel catfish. Southern Division of the American Fisheries Society, Little Rock, Arkansas. February 2020. (Poster)

**Richardson, BM**, Colvin ME, Griffin MJ, Mischke CC, Greenway TE, and Wise DJ. They are the same, but different: comparative genomics of two atypical *Aeromonas hydrophila* pathotypes found in catfish aquaculture of the southeast. Mississippi Chapter of the American Fisheries Society, Gulf Port, Mississippi. February 2020.

**Richardson BM**, Colvin ME, Griffin MJ, Mischke CC, Wise DJ, and Greenway TE. Modeling atypical *Aeromonas hydrophila* (aAh) dynamics in catfish aquaculture ponds of the southeast. Conference of Research Workers in Aquatic Diseases, Chicago, Illinois. November 2019.

**Richardson BM**, Colvin ME, Griffin MJ, Mischke CC, Wise DJ, and Greenway TE. Atypical *Aeromonas hydrophila* (aAh) dynamics in catfish aquaculture ponds of the southeast. Eastern Fish Health Workshop, Lake Placid, New York. April 2019.

Wilmoth B<sup>†</sup>, Schumann DA, **Richardson BM**, Aldridge CA, and Colvin ME. Ontogeny of Southern Brook Lamprey, *Ichthyomyzon gagei*, with emphasis on abundance, distribution, and morphology in a small watershed. Shackouls Honors College 2019 Spring Undergraduate Research Symposium. April 2019. (Poster)

Wilmoth B<sup>†</sup>, Schumann DA, **Richardson BM**, Aldridge CA, and Colvin ME. Ontogeny of Southern Brook Lamprey, *Ichthyomyzon gagei*, with emphasis on abundance, distribution, and morphology in a small watershed. 45<sup>th</sup> Annual Meeting of the Mississippi Chapter of the American Fisheries Society, Jackson, Mississippi. February 2019. (Poster)

**Richardson BM**, Colvin ME, Wise DJ, Griffin MJ, Mischke CC, and Greenway TE. State boundaries draw hard lines in *Aeromonas hydrophila* disease strains of farm-raised channel catfish *Ictalurus punctatus*. 45<sup>th</sup> Annual Meeting of the Mississippi Chapter of the American Fisheries Society, Jackson, Mississippi. February 2019.

Aldridge CA, **Richardson BM**, Schumann DA, and Colvin ME. Identifying barriers to the use and detection of passive integrated transponder (PIT) tags in Southern Brook Lamprey ammocoetes (*Ichthyomyzon gagei*, Hubbs & Trautman, 1937). Southeastern Fishes Council 44<sup>th</sup> Annual Meeting, McCormick, South Carolina. November 2018.

**Richardson BM**, Colvin ME, Wise DJ, Griffin MJ, Mischke CC, and Greenway TE. Evaluating atypical *Aeromonas hydrophila* (aAh) in catfish aquaculture of the Mississippi delta region. 8<sup>th</sup> International Symposium on Aquatic Animal Health, Charlottetown, Prince Edward Island, Canada. September 2018.

**Richardson BM**, Aldridge CA, Schumann DA, and Colvin ME. Assessing viability of passive integrated transponder (PIT) tags for ecological studies of lamprey ammocoetes. 148<sup>th</sup> Annual Meeting of the American Fisheries Society, Atlantic City, New Jersey. August 2018. (Poster)

**Richardson BM**, Colvin ME, Wise DJ, Greenway TE, Griffin MJ, and Mischke CC. Status of Atypical *Aeromonas hydrophila* (aAh) in Mississippi. 148<sup>th</sup> Annual Meeting of the American Fisheries Society, Atlantic City, New Jersey. August 2018.

**Richardson BM**, Colvin ME, Wise DJ, Griffin MJ, Mischke CC, and Greenway TE. Using occupancy models to investigate atypical *Aeromonas hydrophila* (aAh) prevalence in cultured catfish. Graduate Student Research Symposium Hosted by the Mississippi State University Office of the Graduate School, Mississippi State, Mississippi. February 2018.

**Richardson BM**, Colvin ME, Wise DJ, Griffin MJ, Mischke CC, and Greenway TE. Occupancy modeling to assess atypical *Aeromonas hydrophila* (aAh) prevalence in farm-raised catfish. Meeting of the Mississippi Chapter of the American Fisheries Society, Jackson, Mississippi. February 2018.

**Richardson BM**, Colvin ME, Wise DJ, Greenway TE, Griffin MJ, and Mischke CC. Virulent *Aeromonas hydrophila* (vAh) – not just another “hole-in-the-head”. 147<sup>th</sup> Annual Meeting of the American Fisheries Society, Tampa, Florida. August 2017.

Tumolo BB, **Richardson BM**, Jackson N, and Flinn MB. Organismal response to human manipulated ecosystems: varying body condition in paddlefish (*Polyodon spathula*) across large river impoundments. Annual Meeting of the Society for Freshwater Science, Sacramento, California. May 2015. (Poster)

**Richardson BM** and Flinn MB. Diet ecology of four sympatric gar species (family Lepisosteidae) in Clarks River, Kentucky. Midwest Ecology and Evolution Conference, Bloomington, Indiana. March 2015.

**Richardson BM** and Flinn MB. 7 years later: ecology and population dynamics of the gar community within Clarks River, KY. Alligator Gar Technical Committee Meeting, Annual Meeting of the Southern Division of the American Fisheries Society, Savannah, Georgia. January 2015.

**Richardson BM** and Flinn MB. Strong diet overlap in four sympatric gar relatives (family Lepisosteidae): including reintroduced alligator gar (*Atractosteus spatula*) of western Kentucky. Annual Meeting of the Southern Division of the American Fisheries Society. Savannah, Georgia. January 2015.

**Richardson BM** and Flinn MB. Overlap in the diets of four sympatric gar species of western Kentucky. Society for Freshwater Science Annual Meeting, Milwaukee, Wisconsin. April 2015.

**Richardson BM** and Flinn MB. Investigating the diet ecology of four sympatric gar species (family Lepisosteidae) in western Kentucky. 6<sup>th</sup> Annual Research Symposium of the Watershed Studies Institute, Murray State University Scholars Week, Murray, Kentucky. April 2014.

**Richardson BM** and Flinn MB. A dietary comparison of four sympatric gar species: alligator gar (*Atractosteus spatula*), longnose gar (*Lepisosteus osseus*), shortnose gar (*L. platostomus*), and spotted gar (*L. oculatus*). Southeastern Ecology and Evolution Conference, Georgia Southern University, Statesboro, Georgia. October 2014. (Poster)

**Richardson BM** and Flinn MB\*. A dietary comparison of four sympatric relatives: alligator gar (*Atractosteus spatula*), longnose gar (*Lepisosteus osseus*), shortnose gar (*L. platostomus*), and spotted gar (*L. oculatus*). Joint Aquatic Sciences Meeting, Portland, Oregon. May 2014

**Richardson BM** and Flinn MB. New gar in town: diet overlap of reintroduced alligator gar with three sympatric relatives. 100<sup>th</sup> Annual Meeting of the Kentucky Academy of Science, Lexington, Kentucky. November 2014.

**Richardson BM** and Flinn MB. A dietary comparison of four sympatric gar species: alligator gar, longnose gar, shortnose gar, and spotted gar. Joint Meeting of Ichthyologists and Herpetologists, Hosted by the American Society of Ichthyologists and Herpetologists, Chattanooga, Tennessee. August 2014.

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## PROFESSIONAL EXPERIENCE

<b>Research Fish Biologist</b> <i>USDA-ARS, Warmwater Aquaculture Research Unit</i> <i>Supervisor: Geoffrey (Geoff) Waldbieser, 662.686.3151</i>	<b>2021 - Present</b>
<b>Intermittent Worker (Researcher)</b> <i>Mississippi State University</i> <i>Supervisor: David J. Wise, 662.686.3242</i>	<b>2020 - 2021</b>
<b>Graduate Teaching Assistant</b> <i>Mississippi State University</i> <i>Advisors: Michael E. Colvin, 573.441.2797 and</i> <i>David J. Wise, 662.686.3242</i>	<b>2016 - 2020</b>
<b>Critical Species (Fisheries) Technician II</b> <i>Kentucky Department of Fish and Wildlife Resources</i> <i>Supervisor: Neal Jackson, 618.579.3129</i>	<b>2015</b>
<b>Graduate Teaching Assistant</b> <i>Murray State University</i> <i>Advisor: Michael B. Flinn, 270.809.2272</i>	<b>2013 - 2015</b>
<b>Project Manager</b> <i>Droptine Management</i>	<b>2007 - 2011</b>

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*Supervisor: Chris Hodges, 618.614.0302*

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## MEDIA APPEARANCES

<a href="#"><u>World Aquaculture – Apple Snails</u></a>	Magazine Article	In prep
<a href="#"><u>AFS FCS – Nursery Pond Rotenone</u></a>	Newsletter Article	2023
<a href="#"><u>Fish Farming News – Low-dose Copper</u></a>	Newsletter Article	2023
<a href="#"><u>Fish Farming News – Snail Traps</u></a>	Newsletter Article	2023
<a href="#"><u>Aquaculture North America – Catfish Revival</u></a>	Newsletter Interview	2023
<a href="#"><u>MSU Graduate School 3-Minute Thesis</u></a>	Video Presentation	2018
<a href="#"><u>MSU FWRC Annual Report</u></a>	Student Spotlight	2018
<a href="#"><u>For the Love of Animals – Gone Fishin’ II</u></a>	Media Appearance	2014
<a href="#"><u>For the Love of Animals – Gone Fishin’ I</u></a>	Media Appearance	2013

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## OTHER PROFESSIONAL ACTIVITIES

### Journal Reviewer

*Pest Management Science*

*Fishes*

*Aquaculture*

*Sustainability*

### Professional Organization Membership

American Malacological Society (AMS)

American Fisheries Society (AFS)

World Aquaculture Society (WAS)

US Aquaculture Society (USAS)

## PROFESSIONAL REFERENCES

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United States Geological Society (USGS)  
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**David J. Wise**, Research Professor & Coordinator of Delta Research and Extension Center  
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**Michael B. Flinn**, Associate Professor & Director of Hancock Biological Station  
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**Chelsea Gilliland**, Arkansas River Biologist  
Arkansas Game and Fish Commission  
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**Caleb Aldridge**, Invasive Carp Coordinator  
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US Fish and Wildlife Service  
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