Thomas M. Galligan, Ph.D.

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EDUCATION

2017 **PhD, Biomedical Sciences –** Medical University of South Carolina (MUSC), Marine Biomedicine and Environmental Sciences Program

2013 **BS, Dairy Science –** Virginia Polytechnic Institute and State University (Virginia Tech)

PROFESSIONAL POSITIONS

2018 **Postdoctoral Associate –** Virginia Tech, Department of Fish and Wildlife Conservation
Advisor: Dr. William Hopkins

2018 **Instructor –** Virginia Tech, Department of Fish and Wildlife Conservation
Course Title (Catalog Number): Wildlife Biology (FIW 2314)

2016 - 2017 **Graduate Research Assistant –** MUSC, Hollings Marine Laboratory
Advisors: Drs. Ashley Boggs and Lori Schwacke

2016 **Graduate Teaching Intern –** The Citadel, Department of Biology
Course Title (Catalog Number): Mammalian Physiology (BIOL 403)

2014 - 2016 **Graduate Research Assistant –** MUSC, Hollings Marine Laboratory
Advisor: Dr. Louis Guillette Jr**.**

2013 - 2014 **Graduate Laboratory Rotations –** MUSC, Hollings Marine Laboratory
Advisors: Drs. Ashley Boggs, Brittany Kassim, and Louis Guillette Jr**.**

2012 **NSF Research Experience for Undergraduates –** College of Charleston, Grice Marine Laboratory
Advisor: Dr. Louis Guillette Jr.

2011 **Honors Undergraduate Research –** Virginia Tech, Department of Dairy Science
Advisor: Dr. Katharine Knowlton

2011 **NSF Research Experience for Undergraduates –** Virginia Tech, Department of Biomedical Sciences and Pathology
Advisor: Dr. Nammalwar Sriranganathan

2011 **Undergraduate Teaching Assistant –** Virginia Tech, Department of Dairy Science
Course Title (Catalog Number): Introduction to Dairy Science (DASC 1574)

PUBLICATIONS

7. Hale, M.D., J.A. Cloy-McCoy, B.M. Dohenny, **T.M. Galligan**, L.J. Guillette Jr., B.B. Parrott (2018). Embryonic estrogen exposure recapitulates persistent ovarian transcriptional programs in an environmental model of endocrine disruption. *Biology of Reproduction.* ioy 165
6. **Galligan, T.M.**, L.H. Schwacke, W.E, McFee, A.S.P. Boggs (2018). Evidence for cortisol-cortisone metabolism by marine mammal blubber. *Marine Biology* 165 (7), 114.

5. **Galligan, T.M.**, L.H. Schwacke, D. Houser, R.S. Wells, T. Rowles, A.S.P. Boggs (2018). Characterization of circulating steroid hormone profiles in *Tursiops truncatus* by liquid chromatography tandem mass spectrometry (LC-MS/MS). *General and Comparative Endocrinology* 263, 80-91.
4. Hale, M.D., **T.M. Galligan**, T.R. Rainwater, B.C. Moore, P.M. Wilkinson, L.J. Guillette Jr., B.B. Parrott (2017). The AhR signaling pathway in the American alligator links historical exposures to modern day effects on offspring development. *Environmental Pollution* 230, 1050-1061.
3. Boggs, A.S.P., T. Schock, L.H. Schwacke, **T.M. Galligan**, J. Morey, W. McFee, J.R. Kucklick (2017). Rapid and reliable steroid hormone profiling in Tursiops truncatus blubber using liquid chromatography tandem mass spectrometry (LC-MS/MS). *Analytical and Bioanalytical Chemistry* 409 (21), 5019-5029.
2. Boggs, A.S.P., J.A. Bowden, **T.M. Galligan**, L.J. Guillette Jr., J.R. Kucklick (2016). Development of a Multi-class Steroid hormone screening method using liquid chromatography tandem mass Spectrometry (LC-MS/MS). *Analytical and Bioanalytical Chemistry* 408 (15), 4179-4190.
1. Boggs, A.S.P., H.J. Hamlin, J.C. Nifong, B.L. Kassim, R.H. Lowers, **T.M. Galligan**, S.E. Long, L.J. Guillette Jr. (2016). Urinary iodine and stable isotope analysis to examine habitat influences on thyroid hormones among coastal dwelling American alligators. *General and Comparative Endocrinology* 226, 5-13.

MANUSCRIPTS UNDER REVIEW

- **Galligan, T.M.**, B.C. Balmer, L.H. Schwacke, J.L. Bolton, P.E. Rosel, B. Quigley, G.M. Ylitalo, A.S.P. Boggs (Under Review). Examining the relationships between blubber steroid hormone and persistent organic pollutant measurements in common bottlenose dolphins. *Aquatic Toxicology.*
- **Galligan, T.M.**, M.D. Hale, J.A. Cloy-McCoy, D.S. Bermudez, L.J. Guillette Jr., B.B. Parrott (Under Review). Assessing impacts of embryonic steroid exposure on thyroidal physiology and gene expression patterns in the American alligator (*Alligator mississippiensis*). *General and Comparative Endocrinology.*
- Boggs, A.S.P., J.M. Ragland, E.S. Zolman, T.B. Schock, J.S. Morey, **T.M. Galligan**, G. Dalle Luche, B.C. Balmer, R.S. Wells, J.R. Kucklick, L.H. Schwacke (Under Review). Seasonal stress and reproductive endocrinology of free-ranging bottlenose dolphins using remote sampling paired with mass spectrometry. *General and Comparative Endocrinology.*
- Connock, J., B. Case, S. Button, J. Groffen, **T.M. Galligan**, W.A. Hopkins (Under Review). Detection of hellbenders (*Cryptobranchus alleganiensis*) occupying nest boxes using remote passive integrated transponder (PIT) tag scanning technology. *Herpetological Conservation and Biology* .

PRESENTATIONS

Oral Presentations

- **Galligan, T.M.**, L.H. Schwacke, A.S.P Boggs (2018). Is blubber a suitable matrix for endocrine assessment in cetaceans? *Gulf of Mexico Oil Spill and Ecosystem Science Conference*. New Orleans, LA
- **Galligan, T.M.**, L.H. Schwacke, A.S.P Boggs (2016). Using blubber to examine steroid hormone homeostasis in bottlenose dolphins (*Tursiops truncatus*) exposed to dichlorodiphenyltrichloroethane. *Society of Environmental Toxicology and Chemistry North America 37th Annual Meeting*. Orlando, FL
- **Galligan, T.M.**, L.H. Schwacke, A.S.P Boggs (2016). Examining steroid hormone homeostasis in bottlenose dolphins exposed to dichlorodiphenyltrichlorethane (DDT). *"Environmental Endocrine Disruptors" Gordon Research Seminar*. Newry, ME

- **Galligan, T.M.**, A.S.P. Boggs, L.J. Guillette Jr., B.B. Parrott (2016). Thyroid function and steroid hormone sensitivity during embryonic development in the American alligator. *2016 Palmetto Alligator Research & Management Symposium*. Georgetown, SC
- **Galligan, T.M.**, B.B. Parrott, M.D. Hale, J.A. Cloy-McCoy, P. Wilkinson, T. Rainwater, L.J. Guillette Jr. (2015). AHR signaling in the American alligator: Investigating long-term effects of environmental contaminants on reproduction and development. *2015 Alligator Research Symposium*. Charleston, SC.
- **Galligan, T.M.**, A.S.P. Boggs, L.J. Guillette, Jr. (2012). Histological ontogeny of the Thyroid Gland in the American Alligator (*Alligator mississippiensis*). *College of Charleston REU Symposium*. Charleston, SC.
- **Galligan, T.M.**, B.F. Willing, P.P. Ray, K.F. Knowlton, A. Pruden (2012). Abundance of antibiotic resistance genes in the gut and feces of ionophore-fed lactating cows. *John Lee Pratt Research Symposium*. Blacksburg, VA.
- **Galligan, T.M**., G. Kimsawatde, N. Sriranganathan (2011). Evaluating the effectiveness of free antibiotics versus that of polymer-complexed antibiotics in treating intracellular mycobacterial infections*. Virginia Bioinformatics Institute REU Symposium*. Blacksburg, VA.

Poster Presentations

- **Galligan, T.M**., L.H. Schwacke, A.S.P Boggs (2016). Examining steroid hormone homeostasis in bottlenose dolphins exposed to dichlorodiphenyltrichlorethane (DDT*). "Environmental Endocrine Disruptors" Gordon Research Conference & Seminar*. Newry, ME
- **Galligan, T.M**., A.S.P. Boggs, L.J. Guillette Jr. (2015). Characterizing patterns of thyroid function and regulation in the embryonic American alligator (*Alligator mississippiensis*). *Southeast Regional Society for Developmental Biology Meeting.* Clemson, SC
- **Galligan, T.M**., L.J. Guillette Jr. (2014). Establishing the role of estrogen signaling in embryonic thyroid development. *MUSC Marine Biomedicine and Environmental Sciences Student Research Open House*. Charleston, SC
- **Galligan, T.M**., B.F. Willing, P.P. Ray, K.F. Knowlton, A. Pruden (2012). Abundance of antibiotic resistance genes in the gut and feces of ionophore-fed lactating cows*. American Dairy Science Association & American Society of Animal Science Joint Annual Meeting*. Phoenix, AZ

FELLOWSHIPS, HONORS, & AWARDS

2015	**Honorable Mention, Graduate Research Fellowship Program –** National Science Foundation
2013	**Graduate Assistance in Areas of National Need (GAANN) Fellowship –** MUSC $2,000 awarded to pursue interests in teaching while enrolled at MUSC
2013	**Summa Cum Laude –** Virginia Tech
2013	**Honors Scholar –** Virginia Tech
2011	**John Lee Pratt Senior Research Scholarship –** Virginia Tech $5,000 awarded to support independent undergraduate research

SERVICE & OUTREACH

2018	**Reviewed manuscripts for:** Animals, Environmental Pollution, Environmental Toxicology and Chemistry, and Rapid Communications in Mass Spectrometry

2016 - 2017 **Graduate Student Representative –** Fort Johnson Marine Science Seminar Committee

2015 **Outreach Volunteer –** South Carolina Department of Natural Resources Open House

2014 & 2015 **Outreach Volunteer –** Charleston Earth Day Festival

2011 & 2012 **Volunteer –** Upward Bound Program, Virginia Tech and College of Charleston