CURRICULUM VITAE

Keri Ann Lydon, PhD

Dept. of Environmental Health Science, College of Public Health The University of Georgia

> 142 Environmental Health Science Bldg. Athens, GA 30602 keri.lydon@uga.edu

EDUCATION

Ph.D.	2017	Environmental Health Science, University of Georgia, Athens, GA
M.P.H.	2013	Environmental Health Science, University of South Carolina, Columbia, SC
B.S.	2011	Marine Science, University of South Carolina, Columbia, SC
		Concentration in Biological Oceanography

CURRENT APPOINTMENT

2022 - present Lecturer, Dept. of Environmental Health Science, University of Georgia 95% Teaching + 5% Service

ADDITIONAL APPOINTMENTS

2022-present Member of the Graduate Faculty, University of Georgia

PROFESSIONAL HISTORY

2019 - 2022	Biologist, Gulf Coast Seafood Lab, U.S. Food and Drug Administration
2018 - 2019	ORISE Fellow, Gulf Coast Seafood Lab, U.S. Food and Drug Administration
2017 - 2018	Post-doctoral Research Associate, University of Wisconsin-Milwaukee
2013 - 2017	Graduate Research Assistant, Dept of Environmental Health Science, University of GA
2013 - 2015, 2017	Teaching Assistant/Lab Instructor, Dept of Environmental Health Science, Uni. of GA
2013	ORISE Research Intern, Gulf Coast Seafood Lab, U.S. Food and Drug Administration
2013	Research Assistant, Center for Coastal Environmental Health and Biomolecular
	Research, National Oceanic and Atmospheric Administration, Charleston, SC

PUBLICATIONS

Articles in peer-refereed journals († senior/corresponding author)

- 1. **Lydon, K.A.**, T. Kinsey, C. Le, P. Gulig, J.L. Jones†. 2021. Biochemical and Virulence Characterization of *Vibrio vulnificus* from Clinical and Environmental Sources. *Frontiers in Cellular and Infection Microbiology*. 11:637019.
- 2. Codello, A.†, S.L. McLellan, P. Steinberg, J. Potts, P. Scanes, A. Ferguson, G.C. Hose, M. Griffith, A. Roguet, **K.A. Lydon**, W.A. Maher. 2021. A weight-of-evidence approach for identifying potential

- sources of untreated sewage inputs into a complex urbanized catchment. *Environmental Pollution*, 116575.
- 3. Jones, J.L.†, **K.A. Lydon**, William C. Walton. 2020. Effect of Ploidy on *Vibrio parahaemolyticus* and *Vibrio vulnificus* Levels in Cultured Oysters. *Journal of Food Protection*. 83(11):2014-2017.
- 4. **Lydon, K.A.**† and E.K. Lipp. 2018. Taxonomic annotation errors incorrectly assign the family Pseudoalteromonadaceae to the order Vibrionales in Greengenes: implications for microbial community assessments. *PeerJ* 6: e5248. (Equal first authorship).
- 5. **Lydon, K.A.**, M.J. Robertson, E.K. Lipp†. 2018. Patterns of triclosan resistance in Vibrionaceae. *PeerJ* 6: e5170.
- 6. Wang, S., **K.A. Lydon,** E.M. White, J.B. Grubbs III, E.K. Lipp, J. Locklin, J.R. Jambeck†. 2018. Biodegradation of Poly (3-hydroxybutyrate-co-3-hydroxyhexanoate) Plastic under Anaerobic Sludge and Aerobic Seawater Conditions: Gas Evolution and Microbial Diversity. *Environmental Science & Technology*. 52(10): 5700-5709.
- 7. **Lydon, K.A.**, D.A. Glinski, J.R. Westrich, W.M. Henderson, E.K. Lipp†. 2017. Effects of triclosan on bacterial community composition and Vibrio populations in natural seawater microcosms. *Elementa: Science of the Anthropocene*. Special Feature: Oceans and Human Health in a Changing Environment.
- 8. Jones, J.L.†, **K.A. Lydon**, T.P. Kinsey, B. Friedman, M. Curtis, R. Schuster, J.C. Bowers. 2017. Effects of ambient exposure, refrigeration, and icing on Vibrio vulnificus and Vibrio parahaemolyticus abundances in oysters. *International Journal of Food Microbiology* 253:54-58.
- 9. Kinsey, T.P., **K.A. Lydon**, J.C. Bowers, J.L. Jones†. 2015. Effects of Dry Storage and Resubmersion of Oysters on Total Vibrio vulnificus and Total and Pathogenic (tdh+/trh+) Vibrio parahaemolyticus Levels. *Journal of Food Protection* 78(8): 1574-1580.
- 10. **Lydon, K.A.,** M. Farrell-Evans, J.L. Jones†. 2015. Evaluation of Ice Slurries as a Control for Postharvest Growth of *Vibrio* spp. in Oysters and Potential for Filth Contamination. *Journal of Food Protection* 78(7): 1375-1379.

Manuscripts In-Review

11. **Lydon, K.A.** †, C.J. Grim, M.J Robertson, E.K. Lipp. Draft Genome Sequence of Multidrug Resistant *Vibrio navarrensis* strain DA9 Isolated from a Coastal Canal in the Florida Keys (USA). *Submitted to Microbiology Resource Announcements*.

Manuscripts In-Prep

- 12. **Lydon, K.A.,** Glinski, D. A., M.G. Bucher, Seim, R., Robertson, M., Henderson, W.M., K. Smith, E.K. Lipp †. Spatial and Temporal Dynamics of Coastal Microbial Communities Impacted by Wastewater Discharge. *In-preparation for submission to Environmental Science and Technology*.
- 13. **Lydon, K.A.** † and E.K. Lipp. Pan-genomic Analysis of *Vibrio navarrensis*, an Emerging Pathogen. *In-preparation for submission to PeerJ*.

14. **Lydon, K.A.** and E.K. Lipp †. Environmentally Acquired *Vibrio* Infections. *In-preparation for submission to Clinical Microbiology Reviews*.

- 15. Jones, J.L. †, Neil, W., Leard, L., Marchant, J.G., **Lydon, K.A.** Human Pathogenic *Vibrio* species in Seafood. *In-preparation for submission to Letters in Applied Microbiology*.
- 16. Ellett, A. †, S. Lynn, J. Jacobs, **K.A. Lydon,** J.L. Jones, K. Stryker. Whole Genome Sequencing and Analysis of *Vibrio parahaemolyticus* Isolates from Alaskan Oysters. *In-preparation for submission to Applied and Environmental Microbiology*

RESEARCH GRANTS & FELLOWSHIPS

Total Funding: \$144,177

2020-22	Project: Investigating virulence in Vibrio vulnificus to identify biomarkers of severe disease using comparative genomics, U.S. Food and Drug Administration, Internal Research Support
2018-19	ORISE Research Fellowship, Oak Ridge Institute for Science and Education, Stipend and Travel Support, \$98,000
2015	Public Service and Outreach Fellowship, GA Marine Extension and GA Sea Grant, Stipend and Research Support, \$40,000
2014/16	Innovative and Interdisciplinary Research Grant, University of Georgia Graduate School, Impacts of triclosan from wastewater treatment plant on estuarine microbial ecology and the

- Innovative and Interdisciplinary Research Grant, University of Georgia Graduate School,

 Impacts of triclosan from wastewater treatment plant on estuarine microbial ecology and the prevalence of the marine pathogen, Vibrio (2 awards, 2014 & 2016), \$1,709 Total
- 2014/15 Grant-in-Aid of Research, Sigma Xi, *The antimicrobial triclosan as a selective agent for the marine pathogen, Vibrio, in urban coastal waters* (2 awards, 2014 & 2015), \$1,387 Total
- 2014 Melbourne Carriker Student Research Grant, National Shellfisheries Association, *Triclosan* pollution impacts on intrinsically resistant Vibrios- \$1,250
- 2013 Campus Sustainability Grant, University of Georgia, *Water quality on campus and beyond: Using service learning to monitor and improve water quality on campus-* \$1,831

HONORS & AWARDS

Research	
2018	Postdoctoral Travel Award, American Society for Microbiology, Microbe 2018
2016	Conference Travel Grant, UGA Graduate School
2016	Conference Travel Grant, PPCPs in the Environmental Conference, University of Illinois
2015	Outstanding Student Poster, American Society for Microbiology Annual Meeting
2015	Student Travel Award, American Society for Microbiology Annual Meeting
2015	Student Conference Travel Award, Southeastern Estuarine Research Society
2011	Environmental Health Science Scholarship, Arnold School of Public Health, U of SC

Teaching

Teaching Enhancement Award to Support two Student Peer Facilitators, UGA, \$3,880

2017 Outstanding Teaching Assistant Award, UGA

CONTRIBUTIONS TO TEACHING

Courses Taught

* Denotes course designed and developed

Cross listed with FDST and MBIO

^{**} Denotes course significantly revised

Course Name (credit hours)	Role	Terms Taught
EHSC 3700: Water Quality Investigations on Campus* (3 h)	Instructor	Fall 14
		Spring 14
EHSC 4200: Climate Change and Public Health* (3 h)	Instructor	Fall 22, 23
EHSC 4310/6310: Environmental Microbiology [#] (4 h)	TA + Lab	Spring 14, 15, 17
	Instructor	
	Instructor	Spring 23
EHSC 4610: Water Pollution and Human Health** (3 h)	Instructor	Fall 22, 23
EHSC 7010: Fundamentals of Environmental Health Science** (3 h)	Instructor	Fall 22, 23 Spring 23
EHSC 7010E: Fundamental of Environmental Health Science** (3 h)	Instructor	May 23 SII 23
EHSC 7650: Water Quality and Public Health** (3 h)	Instructor	Spring 23
EHSC 8310: Aquatic Micro., Health & the Envir. (3 h)	TA	Fall 13, 15
FRSHWTR 190: Our Blue Planet and Us* (3 h) - UWM	Instructor	Spring 18

Mentoring

UGA Student Advisory Committees

Name	Program	Grad YR
Megan Robertson	PhD Environmental Health Science	In progress
Kimberly Perez	PhD Environmental Health Science	In progress
Quanza Brooks-Griffin	DrPH (Doctor of Public Health)	In progress

UGA Teaching Assistant Supervision

ne Course	Term	Program	Grad YR	
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Leah Lariscy	EHSC 4610 & EHSC 4200	Fall 2022	PhD Environmental Health	In progress
Carter Colman	EHSC 4310L/6310L	Spring 2023	PhD Environmental Health	In progress

UGA Peer Facilitator/Student Assistant Supervision

Name	Course	Term
Liora McElvaney	EHSC 4610	Fall 2023
Currently Recruiting	EHSC 7650	Spring 2024

Hands-on Science Training + Internship Supervision

Name	Type/Topic	Date	Location	Degree + Grad YR
Victoria Pruente	Bioinformatics	2022	FDA/DISL	<i>PhD</i> - 2020
Ava Ellet	Bioinformatics	2021-2022	FDA/NOAA	N/A
Blair Morrison	Laboratory	2019-2021	FDA/DISL	MS- 2021
Natalie Rumball	Scientific Writing	2017-2018	UWM	PhD- 2021
Shucheng Feng	Scientific Writing	2017-2018	UWM	PhD- 2019
Alexis McAdams	Laboratory + Writing	2017-2018	UWM	MS- 2018
Megan Robertson	Laboratory + Writing	2016-2017	UGA	<i>MPH</i> - 2018
Kyler Herrington	Laboratory	2016	UGA	BS- 2018
Maite Ghazaleh Bucher	Laboratory + Writing	2015-2017	UGA	PhD- 2020
Martinique Edwards	Laboratory	2015	UGA	BS- 2018
AJ Shockely	Laboratory + Writing	2014-2015	UGA- EHS Intern	BS- 2015
Charles Aaron Moon	Water Quality	2014	UGA- EHS Intern	BS- 2015
Tiffany Eberhard	Water Quality	2014	UGA- EHS Intern	BS- 2015
Alexis Cordero	Laboratory	2014	UGA	BS- 2016

CONTRIBUTIONS TO SERVICE

National Service

- 2023- prsent Program Committee, Applied and Environmental Science, American Society for Microbiology, 2024-2026 Microbe Conferences
- 2023- prsent Junior Advocacy Group, Applied and Environmental Science Representative, American Society for Microbiology
- 2019-2022 *Member*, GenomeTrakr Network, U.S. FDA
- 2019-2022 *Member*, CFSAN Micro- and Nanoplastics in Food Work Group, U.S. FDA

•	2019-2020	Abstract Reviewer, Microbe Conference, American Society for Microbiology
•	2019	Travel Award Reviewer, Microbe Conference, American Society for Microbiology

Regional Service

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•	2017-18	Member, Scientific Advisory Council and TMDL Bacterial Working Group, Sweet
		Water Southeastern WI Watersheds Trust, Milwaukee, WI
•	2017-18	Task Force Scientist, Milwaukee Metropolitan Sewerage District, Milwaukee, WI
•	2015-16	Junior Division Judge, Georgia Science and Engineering Fair, Athens, GA
•	2015	Poster Judge, SE Estuarine Research Society Spring Meeting, Jacksonville, FL
•	2013-17	Water Quality Assessment, Upper Oconee Watershed Network, Athens, GA
•	2013	Poster Judge, Southeastern Estuarine Research Society, Charleston, SC

Sessions Convened or Moderated at National Meetings

• 2020 Session Organizer and Moderator of "Water and Foodborne Pathogens in the Environment" for the American Society for Microbiology Microbe 2020 Conference. Held virtually due to COVID-19 pandemic.

Reviewer for Funding Agencies

•	2023	Panel reviewer for the Mississippi Based RESTORE Act Center of Excellence
		(MBRACE) Competitive Research Program, MS-AL Sea Grant
•	2023	Pre-proposal reviewer for Mississippi-Alabama Sea Grant Consortium
•	2023	CDC Fellowship Reviewer, Association of Schools and Programs of Public Health
•	2023	USDA Fellowship Reviewer, Association of Schools and Programs of Public Health
•	2023	Panel Reviewer for NSF Graduate Research Fellowship Program
•	2020	Panel Reviewer for the MBRACE Competitive Research Program, MS-AL Sea Grant

Membership in Professional Societies & UGA Centers

- American Society for Microbiology
- Affiliate Faculty, Scientists Engaged in Education Research (SEER) Center, UGA
- Affiliate Faculty, River Basin Center, UGA

Editorial Service Professional Journals

• 2023-prsent Review Editor, Frontiers in Cellular and Infection Microbiology

Reviewer for Professional Journals AD HOC

- Applied and Environmental Microbiology
- BMC Microbiology
- Environmental Pollution
- FEMS Microbiology Ecology
- Frontiers in Bioinformatics
- Frontiers in Marine Science

- Frontiers in Microbiology
- Frontiers in Public Health
- Journal of Great Lakes Research
- Microbiology Spectrum
- mSphere
- PeerJ

University Service

University of Georgia

• 2022- prsent Mentor, UGA Mentor Program

College of Public Health

- 2023- prsent CPH Inclusive Excellence Committee
- 2023- prsent MPH Core Curriculum Committee

Department of Environmental Health Science

• 2023 EHS Banquet Planning C	ommittee
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- 2023 Administrative Assistant II Search Committee
- 2023 EHS Research Symposium Poster and Rapid-Fire Talk Judge
- 2022- prsent EHS Undergraduate Recruitment
- 2022- prsent Faculty advisor for the Environmental Health Science Club

Local Outreach

•	2018	Preparing to be a Professional Workshop, Engaging Girls in STEM, Milwaukee, WI
•	2015	Water Quality Outreach Hands on Workshop, Double Helix Academy, Athens, GA
•	2015	Water Quality Outreach Hands on Workshop, Experience UGA, Athens-Clarke
		County High Schools, Athens, GA

PROFESSIONAL PRESENTATIONS

Invited Talks

- Lydon, K.A. 2023. Water and Food Safety for Environmental Health. Environmental Law Society Student Group- University of Alabama Law School. Virtual.
- 2. **Lydon, K.A.** 2018. Impacts of wastewater discharge on coastal microbial communities. Milwaukee Microbiology Society. Milwaukee, WI.

National Meetings

- 3. Ellet, A., **Lydon, K.A.,** Lynn, S., Jacobs, J., Jones, J.L., Stryker, K. 2022. Whole Genome Sequencing and Analysis of *Vibrio parahaemolyticus* Isolates from Alaskan Oysters. American Society for Microbiology Next-Generation Sequencing Conference. Baltimore, MD. October. Oral Presentation.
- 4. Wiggin, S., Koufopoulos, P., Hignutt, M., Bloodgood, S., Olson, G., Farrell, L., Duncan, T., Lydon, K., Lunzer, J., Begley, T., Khan, S., Honigfort, P., Brinas, R., Moon, MS., Manga, P., Milstein, S., Solomotis, M., Sprando, B., Torrence, M., Firzpatrick, S., Read, J., and Rolle., D. 2021. A Scientific Review of Microplastics in Food and Water. Food Forum Webinar- National Academy of Sciences.
- 5. Hayes, M., Lydon, K.A., May, S., McGough, M.D., Benner, Jr. R.A., and Björnsdóttir-Butler, K. 2020. Bacterial Communities Associated with Shrimp Decomposition During Storage at 4°C and 36°C. International Association for Food Protection. Poster. Held Virtually due to COVID-19.

6. **Lydon, K.A.**, Hayes, M., Benner, R.A., and K. Björnsdóttir-Butler, K. 2019. Changes in Shrimp Microbiome During Low Temperature Decomposition. American Society for Microbiology Microbe. San Francisco, CA. June. Poster.

- 7. **Lydon, K.A.**, Bootsma, M., and McLellan, S. 2018. Wastewater Treatment Plant Effluent Indicators for Assessing Effluent Dominated Waters. American Society for Microbiology Microbe Atlanta, GA. June. Poster + <u>Selected for Symposium Oral Presentation</u>.
- 8. **Lydon, K.A.**, Wang, S., Lipp, E.K., and Jambeck, J. 2017. Microbial communities associated with polyhydroxyalkanoate bioplastic degradation. American Society for Microbiology Microbe. New Orleans, LA. June. Poster + <u>Selected for Rapid Fire Talk</u>.
- 9. Ghazaleh, M.N., Westrich, J., Kemp, K., Lydon, K., and Lipp, E.K. 2017. Oligotyping Reveals Hidden Diversity in Vibrio spp. Bloom after Saharan Dust Nutrient Input. American Society for Microbiology Microbe. New Orleans, LA. June. Poster.
- Lydon, K.A. and Lipp, E.K. 2015. Characterization of Triclosan Resistance in Vibrio bacteria.
 American Society for Microbiology General Meeting. New Orleans, LA. May. <u>Outstanding Student Poster Award</u>

State and Regional Meetings

- 11. Robertson, M., **Lydon, K.A.**, and Lipp, E.K. 2018. Multiple antibiotic resistance among *Vibrio* species. Dept. of Environmental Health Sciences Student Showcase, UGA, Athens, GA. March. Poster.
- 12. **Lydon, K.A.** and Lipp, E.K. 2017. Spatial and temporal dynamics of wastewater microbial community taxa in a tidally mixed estuary. Navigating the Future of Water Conference, Milwaukee, WI. October. Poster.
- 13. Edwards, E., Westrich, J., **Lydon, K.A.**, Oladeinde, A., Rozier, R.S., and Lipp, E.K. 2016. Water Quality Microbiology Research in Environmental Health Science at UGA. Upper Oconee Science and Policy Summit. Athens, GA. September. Poster.
- 14. Robertson, M., **Lydon, K.A.**, and Lipp, E.K. 2016. Examining a Possible Link Between Triclosan Resistance and Antibiotic Resistance in Presumptive Vibrio Isolates. College of Public Health Capstone Research Day. Athens, GA. May. Poster.
- 15. **Lydon, K.A.**, Glinski, D., Smith, K., Henderson, W.M., and Lipp, E.K. 2016. Effect of Triclosan on Bacterial Community and Vibrio Dynamics in Coastal Environments. PPCPs in the Environment Conference. Champaign, IL. April. Poster.
- 16. **Lydon, K.A.,** Glinski, D., Smith, K., Henderson, W.M., and Lipp, E.K. 2016. Effect of Triclosan on Bacterial Community and Vibrio Dynamics in Coastal Environments. Dept. of Environmental Health Sciences Seminar. Athens, GA. April.
- 17. **Lydon, K.A.** and Lipp, E.K. 2016. Characterization of Triclosan Resistance in *Vibrio* bacteria. UGA Dept. of Environmental Health Science Student Research Showcase. Athens, GA. March. Poster.
- 18. Ghazaleh, M., Westrich, J., **Lydon, K.**, Kemp, K., and Lipp, E. 2016. Oligotyping reveals hidden diversity in opportunistic pathogen *Vibrio spp*. bloom after Saharan dust nutrient input. UGA Dept. of Environmental Health Science Student Research Showcase. Athens, GA. March. Poster.

19. **Lydon, K.A.** and Lipp, E.K. 2015. Selection of *Vibrio* bacteria under pressure of triclosan in coastal ecosystems. Southeastern Estuarine Research Society Meeting. Jacksonville, FL. March.

- 20. Eberhard, T. and **Lydon, K**. 2014. What's in the Water? *Escherichia coli* bacteria in the University of Georgia Watershed. 68th Annual Interstate Environmental Health Seminar, Georgia Environmental Health Association. Savannah, GA. July. Poster.
- 21. **Lydon, K.A.**, Moore, J.G., and DeLorenzo, M.E. 2013. Characterization of *Vibrio vulnificus* (environmental, clinical) and *Vibrio parahaemolyticus* (environmental) isolates for antibiotic resistance in the Southeastern United States. South Carolina Branch of the American Society for Microbiology Annual Spring Meeting, Charleston, SC. April. Poster.

ADDITIONAL TRAINING

- 1. Certificate in Diversity and Inclusion. 2022. University of Georgia, Athens, GA.
- 2. DAWG Ally: LGBTQIA+ Support Training. 2022. Pride Center, University of Georgia, Athens, GA.
- 3. Facilitating Adult Online Learning. 2022. College of Public Health + Center for Teaching and Learning, University of Georgia, Athens, GA
- 4. Master the Fundamentals of AI and Machine Learning: Learning Path. 2022. LinkedIn Learning.
- 5. Create and Deliver Engaging Presentations: Learning Path. 2021. LinkedIn Learning
- 6. Building Trust and Collaborating with Others: Leaning Path. 2021. LinkedIn Learning.
- 7. GalaxyTrakr Training. 2019. CFSAN Bioinformatics Team via webinar at GCSL, Dauphin Island, AL
- 8. *Microbiome Analysis Workshop*. 2019. Institute of Genome Sciences at the University of Maryland Medical School, Baltimore, MD.
- 9. *Masterclass in Scientific Writing and Publishing*. 2018. Training Given by Springer Nature at the University of Wisconsin Milwaukee School of Freshwater Sciences, Milwaukee, WI.
- 10. Microbiome Informatics Workshop: 16S and Metagenomic Sequence Analysis with QIIME2 and Anvi 'o. 2017. Wisconsin Medical College, Wauwatosa, WI.
- 11. Analyses of Microbial Community Composition and Metagenomics Using QIIME. 2015. Training given at the American Society for Microbiology Annual Meeting in New Orleans, LA.
- 12. Service-Learning Course Design. Office of Service Learning, University of Georgia, Athens, GA.
- 13. Galaxy Workshop. 2014. Institute of Bioinformatics, University of Georgia, Athens, GA.
- 14. *Green Infrastructure Workshop*. 2013. Training given at the Coastal Center for Environmental Health and Biomolecular Research, NOAA, Charleston, SC.