

David Murray-Stoker

Ph.D. Candidate, University of Toronto
Department of Ecology & Evolutionary Biology

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Education

University of Toronto, Toronto, ON, Canada Ph.D. Candidate, Ecology & Evolutionary Biology	2018-present
University of Georgia, Athens, GA, USA B.S. Ecology, <i>cum laude</i>	2011-2016
Gainesville State College, Gainesville, GA, USA Prerequisites while dual-enrolled in high school and community college	2010-2011

Research Interests

(Meta)Community ecology | Evolutionary ecology | Pedagogy | Diversity, equity, and inclusion in STEM | History and philosophy of science

Honours & Awards

Rustom H. Dastur Graduate Scholarship in Ecology & Evolutionary Biology	2018-Present
University of Toronto Faculty of Arts & Science Program-Level Fellowship	2018-Present
Josh Laerm Memorial Outstanding Undergraduate Award	2015

Publications

8. **Murray-Stoker, D.**, and M.T.J. Johnson. In press. Ecological consequences of urbanization on a legume-rhizobia mutualism. *Oikos*. [Preprint](#) | [Data & Code](#)
7. Barnum, T. R., J. T. Wootton, R. J. Bixby, J. M. Drake, **D. Murray-Stoker**, C. Colon-Gaud, A. T. Rugenski, T. C. Frauendorf, S. Connelly, S. S. Kilham, M. R. Whiles, K. R. Lips, and C. M. Pringle. In press. Mechanisms underlying lack of functional compensation by insect grazers after tadpole declines in a Neotropical stream. *Limnology & Oceanography*. DOI: [10.1002/lno.11904](https://doi.org/10.1002/lno.11904)
6. **Murray-Stoker, D.**, and K. M. Murray-Stoker. 2020. Consistent metacommunity structure despite inconsistent drivers of assembly at the continental scale. *Journal of Animal Ecology* 89: 1678-1689. DOI: [10.1111/1365-2656.13220](https://doi.org/10.1111/1365-2656.13220) | [Data & Code](#)
5. Santangelo J. S., Miles, L. S., Breitbart, S. T., **Murray-Stoker, D.**, Rivkin, L. R., Johnson, M. T. J. and Ness, R. W., Urban environments as a framework to study parallel evolution. In: *Urban Evolutionary Biology*. Edited by Marta Szulkin, Jason Munshi-South and Anne Charmantier: Oxford University Press (2020). Oxford University Press. DOI: [10.1093/oso/9780198836841.003.0003](https://doi.org/10.1093/oso/9780198836841.003.0003)
4. **Murray-Stoker, D.** 2020. On the efficacy of restoration in stream networks: comments, critiques, and prospective recommendations. bioRxiv:611939, version 7. Peer-reviewed and recommended by *Peer Community In Ecology*. DOI: <https://doi.org/10.1101/611939> | [Data & Code](#)

3. Murray-Stoker, K. M., D. P. Batzer, **D. Murray-Stoker**, and J. V. McHugh. 2020. Shifts in the community composition of caddisflies (Insecta: Trichoptera) in a subtropical river over three decades. *Ecological Entomology* 45: 514-524. DOI: [10.1111/een.12822](https://doi.org/10.1111/een.12822) | [Data & Code](#)
2. Murray, K. M., **D. Stoker**, C. M. Pringle, and T. N. Simon. 2018. Is spatial variation in population size structures of a stream-dwelling caddisfly due to the altered effects of a predator by a thirdparty species? *Hydrobiologia* 820:65-77. DOI: [10.1007/s10750-018-3674-0](https://doi.org/10.1007/s10750-018-3674-0) | [Data & Code](#)
1. **Stoker, D.**, A. J. Falkner, K. M. Murray, A. K. Lang, T. R. Barnum, J. Hepinstall-Cymerman, M. J. Conroy, R. J. Cooper, and C. M. Pringle. 2017. Decomposition of terrestrial resource subsidies in headwater streams: Does consumer diversity matter? *Ecosphere* 8:e01868. DOI: [10.1002/ecs2.1868](https://doi.org/10.1002/ecs2.1868) | [Data & Code](#)

Funding

University of Toronto Ecology & Evolutionary Biology Research Grant (\$2000 CAD)	2021
American Society of Naturalist Student Research Award (\$2000 USD)	2021
Centre for Urban Environments Research Fund (\$2000 CAD)	2021
CURO Undergraduate Research Assistantship (\$1000 USD)	2015
Society for Freshwater Science Undergraduate Travel Award (\$600 USD)	2015
Thelma Richardson & Frank Golley Undergraduate Support Award (\$500 USD)	2015

Teaching Experience

<i>University of Toronto Mississauga</i>	
Teaching Assistant , Ecology (BIO205)	2018, 2019, 2020
Teaching Assistant , Biometrics I (BIO360)	2019, 2020, 2021
<i>University of Toronto</i>	
Teaching Assistant , Ecosystem Structure & Function (ENV234)	2018

Pedagogical Training

<i>University of Toronto, Teaching Assistant Training Program</i>	
Advanced University Teaching Preparation Certificate	*In progress*
<i>Training Sessions and Workshops</i>	
Engaging in Quantitative and Qualitative Data Interpretation	
Avoiding Crickets: Discussion Strategies and Activities	
Building Community in Online Learning Environments	
Identify, Assist, Refer Plus (IAR+) Training	
Identifying and Addressing Microaggressions in the University Classroom	
Undergraduate Mentorship and Training in the Research Laboratory	

Academic Service

<i>Departmental Committees</i>	
<i>UTM Biology Graduate Student Society</i>	2021-Present

Secretary

UTM Biology Equity, Diversity, and Inclusion Committee

2020-Present

Founding graduate student member

Led the survey and report on Equity, Diversity, and Inclusion in the department

Designed the survey questionnaire

Developed a qualitative approach to analyse survey responses

Drafted the summary report of the survey

Survey used to identify actionable items and to set a baseline for future surveys

U of T EEB Wellness Committee

2020-Present

Equity, Diversity, & Inclusion Subcommittee

Conducted qualitative analyses on responses to an EDI survey

Assisted with writing the summary report for the EDI survey

UTM Biology Seminar Committee

2019-2020

UTM Biology Undergraduate Report Committee

2019

Mentoring

Research Opportunity Program

April 2021 - Present

Department of Biology

University of Toronto Mississauga

Mentee: Elana Maria

Project Title: Eco-evolutionary feedbacks between *Trifolium repens* and its community

Presentations

5. **Murray-Stoker, D.**, and M. T. J. Johnson. 2021. Ecological consequences of urbanization on a legume-rhizobia mutualism. Annual Meeting of the Ecological Society of America, Virtually Anywhere. (Oral)

4. **Stoker, D.**, A. J. Falkner, K. M. Murray, A. K. Lang, T. R. Barnum, J. Hepinstall-Cymerman, M. J. Conroy, R. J. Cooper, and C. M. Pringle. 2016. Decomposition of terrestrial resource subsidies in aquatic ecosystems: Does consumer diversity matter? Odum School of Ecology Graduate Student Symposium, Athens, GA. (Poster)

3. **Stoker, D.**, A. J. Falkner, K. M. Murray, A. K. Lang, T. R. Barnum, J. Hepinstall-Cymerman, M. J. Conroy, R. J. Cooper, and C. M. Pringle. 2015. Decomposition of terrestrial resource subsidies in headwater streams: Does consumer diversity matter? Annual Meeting of the Society for Freshwater Science, Milwaukee, WI. (Poster)

2. **Stoker, D.**, A. J. Falkner, K. M. Murray, A. K. Lang, T. R. Barnum, J. Hepinstall-Cymerman, M. J. Conroy, R. J. Cooper, and C. M. Pringle. 2015. Decomposition of terrestrial resource subsidies in headwater streams: Does consumer diversity matter? Annual Southeastern Ecology and Evolution Conference, Athens, GA. (Oral)

1. Barnum, T. R., J. T. Wootton, R. J. Bixby, J. M. Drake, C. Colon-Gaud, **D. Stoker**, A. T. Rugenski, T. C. Frauendorf, S. J. Connelly, S. S. Kilham, M. R. Whiles, and K. R. Lips. 2014. Examining why grazing mayflies do not functionally compensate for the top-down control of

algal communities following disease-driven tadpole declines in a Neotropical stream. Annual Meeting of the Ecological Society of America, Sacramento, CA. (Oral)

Peer Reviews

Peer Community In Ecology, Proceedings of the Royal Society Series B: Biological Sciences

Professional Experience

Research Assistant Department of Ecology & Evolutionary Biology University of Toronto Supervised by Marc T. J. Johnson, Ph.D.	May 2018-August 2018
Lab Manager Odum School of Ecology University of Georgia Supervised by Catherine M. Pringle, Ph.D.	January 2013-July 2016
Research Assistant Odum School of Ecology University of Georgia Supervised by Amanda T. Rugenski, Ph.D.	January 2016-May 2016
Lab Technician Odum School of Ecology University of Georgia Supervised by Andrea Silletti, M.S.	November 2014-August 2015
Field Technician Odum School of Ecology -University of Georgia	May 2013

Society Memberships

Ecological Society of America	2013-Present
Society for the Study of Evolution	2019-Present
American Society of Naturalists	2018-Present
Canadian Society for Ecology & Evolution	2020-Present
Center for Open Science	2017-Present
Society for Open, Reliable, & Transparent Ecology & Evolution (SORTEE)	2020-Present