

# René S. Shahmohamadloo

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Liber Ero Postdoctoral Fellow & NSERC Postdoctoral Fellow

School of Biological Sciences, Washington State University

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## PROFESSIONAL APPOINTMENTS

- 2022-2025 **Liber Ero Postdoctoral Fellow**  
School of Biological Sciences, Washington State University, WA, USA  
Supervisors: Seth Rudman, John Fryxell
- 2022-2024 **NSERC Postdoctoral Fellow**  
School of Biological Sciences, Washington State University, WA, USA  
Supervisor: Seth Rudman
- 2021-2022 **Postdoctoral Researcher**  
Department of Integrative Biology, University of Guelph, ON, Canada  
Supervisor: John Fryxell

## EDUCATION

- 2021 **Ph.D. Environmental Toxicology**  
School of Environmental Sciences, University of Guelph, ON, Canada  
Supervisor: Paul Sibley
- 2016 **M.Sc. Environmental Toxicology**  
School of Environmental Sciences, University of Guelph, ON, Canada  
Supervisor: Paul Sibley
- 2014 **B.Sc. Hon. Toxicology**  
College of Physical and Engineering Sciences, University of Guelph, ON, Canada

## PUBLICATIONS (‡ co-first authors | † undergraduate or graduate mentee)

### Manuscripts in Review and Revision

25. Shahmohamadloo, R.S., Gabidulin, A.R.†, Andrews, E.R.†, Rudman, S.M. (2025). Microbiome evolution plays a secondary role in host rapid adaptation. doi: [10.1101/2025.06.27.661976](https://doi.org/10.1101/2025.06.27.661976)
24. Prileson, E.G., Campagnari, B., Clare, C.I., Gabidulin, A.R., Shahmohamadloo, R.S., Rudman, S.M. (2025). Adaptation and trade-offs with insecticide resistance in overwintering *Drosophila*. doi: [10.1101/2025.05.27.655643](https://doi.org/10.1101/2025.05.27.655643) (In review with *Evolution*).

### Peer-reviewed

23. Tissier, M.L.‡, Shahmohamadloo, R.S.‡, Guzman, L.M.‡ (2025). Pesticide risk assessment in a changing world. *Glob. Change Biol.*, 31: e70203. doi: [10.1111/gcb.70203](https://doi.org/10.1111/gcb.70203)
22. Shahmohamadloo, R.S., Gabidulin, A.R.†, Andrews, E.R.†, Fryxell, J.M., Rudman, S.M. (2025). A test of the contribution of microbiome plasticity to host phenotypic plasticity in *Daphnia*. *Proc. R. Soc. B.*, 292: 20250365. doi: [10.1098/rspb.2025.0365](https://doi.org/10.1098/rspb.2025.0365)
21. Shahmohamadloo, R.S., Fryxell, J.M., Rudman, S.M. (2025). Transgenerational epigenetic inheritance increases trait variation but is not adaptive. *Evolution*, 79(6), 1033-1043. doi: [10.1093/evolut/qpaf050](https://doi.org/10.1093/evolut/qpaf050)
20. Schiller, L., Tissier, M.L., Davis, A.C.D., Lamb, C.T., Mayer, S.O., Menzies, A.K., Shahmohamadloo, R.S., Vanderwolf, K.J. (2025) Hopeful insights from wildlife recoveries in Canada, *FACETS*, 10: 1-17. doi: [10.1139/facets-2024-0084](https://doi.org/10.1139/facets-2024-0084)  
Media coverage: [The Narwhal](#), [The Canadian Press](#)

19. **Shahmohamadloo, R.S.**†, Rudman, S.M.†, Clare, C.I., Westrick, J.A., De Meester, L., Fryxell, J.M. (2024). Intraspecific diversity is critical to population-level risk assessments. *Sci. Rep.*, 25883. doi: [10.1038/s41598-024-76734-x](https://doi.org/10.1038/s41598-024-76734-x)
18. **Shahmohamadloo, R.S.**†, Tissier, M.L.†, Guzman, L.M.† (2024). Risk assessments underestimate threat of pesticides to wild bees. *Conserv. Letters*, e13022. doi: [10.1111/conl.13022](https://doi.org/10.1111/conl.13022)  
Media coverage: [The CNRS](#), [USC Dornsife](#)
17. **Shahmohamadloo, R.S.**, Frenken, T., Rudman, S.M., Van West, P., Ibelings, B.W., Trainer, V.L. (2023). Diseases and Disorders in Fish due to Harmful Algal Blooms. *Climate Change on Diseases and Disorders of Finfish in Cage Culture* (3rd Ed). CABI, Oxfordshire, UK. doi: [10.1079/9781800621640.0010](https://doi.org/10.1079/9781800621640.0010)
16. **Shahmohamadloo, R.S.**, Bhavsar, S.P., Ortiz Almirall, X., Marklevitz, S.A.C., Rudman, S.M., Sibley, P.K. (2023). Cyanotoxins accumulate in Lake St. Clair fish yet their fillets are safe to eat. *Sci. Total. Environ.*, 874, 162381. doi: [10.1016/j.scitotenv.2023.162381](https://doi.org/10.1016/j.scitotenv.2023.162381)  
Media coverage: [CBC News](#), [CBC Listen](#), [The Globe and Mail](#), [CBC News](#), [The Weather Network](#)
15. **Shahmohamadloo, R.S.**, Bhavsar, S.P., Ortiz Almirall, X., Marklevitz, S.A.C., Rudman, S.M., Sibley, P.K. (2023). Lake Erie fish safe to eat yet afflicted by algal hepatotoxins. *Sci. Total. Environ.*, 861, 160474. doi: [10.1016/j.scitotenv.2022.160474](https://doi.org/10.1016/j.scitotenv.2022.160474)  
Media coverage: [CBC News](#), [CBC Listen](#), [The Globe and Mail](#), [CBC News](#), [The Weather Network](#)
14. Hataley, E.K.†, **Shahmohamadloo, R.S.**, Ortiz Almirall, X., Harrison, A.L., Rochman, C.M., Zou, S., Orihel, D.M. (2022). Experimental evidence from the field that naturally weathered microplastics accumulate cyanobacterial toxins in eutrophic lakes. *Environ. Toxicol. Chem.*, 41(12), 3017-3028. doi: [10.1002/etc.5485](https://doi.org/10.1002/etc.5485)
13. **Shahmohamadloo, R.S.**, Febria, C.M., Fraser, E.D.G., Sibley, P.K. (2022). The Sustainable Agriculture Imperative: The need for an Agrosystem Approach to Meet the United Nations Sustainable Development Goals by 2030. *Integr. Environ. Assess. Manag.*, 18(5), 1199-1205. doi: [10.1002/ieam.4558](https://doi.org/10.1002/ieam.4558)  
Media coverage: [The Rockefeller Foundation](#), [Farmtario](#), [U of G News](#)
12. **Shahmohamadloo, R.S.**, Ortiz Almirall, X., Simmons, D.B.D., Bhavsar, S.P., Poirier, D.G., Sibley, P.K. (2022). Fish tissue accumulation and proteomic response to microcystins is species-dependent. *Chemosphere*, 287, 132028. doi: [10.1016/j.chemosphere.2021.132028](https://doi.org/10.1016/j.chemosphere.2021.132028)
11. **Shahmohamadloo, R.S.**, Ortiz Almirall, X., Simmons, D.B.D., Lumsden, J.S., Bhavsar, S.P., Watson-Leung, T., Vander Eyken, A.†, Hankins, G.†, Hubbs, K.†, Konopelko, P.†, Sanarcki, M.†, Strong, D.†, Sibley, P.K. (2021). Cyanotoxins within and outside of *Microcystis aeruginosa* cause adverse effects in Rainbow Trout (*Oncorhynchus mykiss*). *Environ. Sci. Technol.*, 55(15), 10422-10431. doi: [10.1021/acs.est.1c01501](https://doi.org/10.1021/acs.est.1c01501)  
Award: [2022 IFHAB Best Paper Award](#)
10. Guo, Y., O'Brien, A.M., Lins, T.F., **Shahmohamadloo, R.S.**, Ortiz Almirall, X., Rochman, C.M., Sinton, D. (2021). The Effects of Hydrogen Peroxide on Cyanobacterium *Microcystis aeruginosa* in the Presence of Nanoplastics. *ACS ES&T Water*, 1(7), 1596-1607. doi: [10.1021/acsestwater.1c00090](https://doi.org/10.1021/acsestwater.1c00090)  
Award: [2021 ACS ES&T Water Best Paper Award](#)
9. **Shahmohamadloo, R.S.** (2020). Mentoring with trust. *Science*, 369(6508), 1270. doi: [10.1126/science.369.6508.1270](https://doi.org/10.1126/science.369.6508.1270)
8. Anaraki, M.T., **Shahmohamadloo, R.S.**, Sibley, P.K., MacPherson, K.A., Bhavsar, S.P., Simpson, A.J., Ortiz Almirall, X. (2020). Optimization of an MMPB Lemieux Oxidation method for the quantitative analysis of microcystins in fish tissue by LC-QTOF MS. *Sci. Total Environ.*, 737, 140209. doi: [10.1016/j.scitotenv.2020.140209](https://doi.org/10.1016/j.scitotenv.2020.140209)
7. **Shahmohamadloo, R.S.**, Simmons, D.B.D., Sibley, P.K. (2020). Shotgun proteomics analysis reveals sub-lethal effects in *Daphnia magna* exposed to cell-bound microcystins produced by *Microcystis aeruginosa*. *Comp. Biochem. Phys. D.*, 33, 100656. doi: [10.1016/j.cbd.2020.100656](https://doi.org/10.1016/j.cbd.2020.100656)
6. **Shahmohamadloo, R.S.**, Ortiz Almirall, X., Bhavsar, S.P., Poirier, D.G., Sibley, P.K. (2020). Assessing the toxicity of cell-bound microcystins on freshwater pelagic and benthic invertebrates. *Ecotox. Environ. Safe.*, 188, 109945. doi: [10.1016/j.ecoenv.2019.109945](https://doi.org/10.1016/j.ecoenv.2019.109945)

5. **Shahmohammadloo, R.S.**, Ortiz Almirall, X., Holeyton, C., Bhavsar, S.P., Poirier, D.G., Sibley, P.K. (2019). Adopting a culture technique to produce and sustain high concentrations of microcystins by *Microcystis aeruginosa* in laboratory. *MethodsX*, 6, 2521-2535. doi: 10.1016/j.mex.2019.10.024
4. Gene, S.M.†, **Shahmohammadloo, R.S.**, Ortiz, X., Prosser, R.S. (2019). Effect of *Microcystis aeruginosa*-associated microcystin-LR on the survival of 2 life stages of freshwater mussel (*Lampsilis siliquoides*). *Environ. Toxicol. Chem.*, 38(10), 2137-2144. doi: 10.1002/etc.4527
3. **Shahmohammadloo, R.S.**, Lissemore, L., Prosser, R.S., Sibley, P.K. (2017). Comparative evaluation of four biosolids formulations on the effects of triclosan on plant-arbuscular mycorrhizal fungal interactions in three crop species. *Sci. Total. Environ.*, 583, 292-299. doi: 10.1016/j.scitotenv.2017.01.067
2. **Shahmohammadloo, R.S.**, Lissemore, L., Prosser, R.S., Sibley, P.K. (2016). Evaluating the effects of triclosan on three field crops grown in four formulations of biosolids. *Environ. Toxicol. Chem.*, 36(7), 1896-1908. doi: 10.1002/etc.3712
1. Prosser, R.S., Lissemore, L., **Shahmohammadloo, R.S.**, Sibley, P.K. (2015). Effect of biosolids-derived triclosan and triclocarban on the colonization of plant roots by arbuscular mycorrhizal fungi. *Sci. Total. Environ.*, 508, 427-434. doi: 10.1016/j.scitotenv.2014.12.014

### Manuscripts in Preparation

- P1. Rudman, S.M., Faber-Hammond, J., Sherman, R.E., **Shahmohammadloo, R.S.**, MacMillan, H., Jeyasingh, P.D., Schmidt, P. (2025). Ecology stoichiometry and life history theory, but not evolutionary genomics, predict rapid adaptation.

### AWARDS

#### Grants & Fellowships Awarded

(Total: \$454,000 CAD, \$5,000 USD)

2022-2025	Liber Ero Postdoctoral Fellowship	\$190,000 CAD
2022-2024	NSERC Postdoctoral Fellowship*	\$90,000 CAD
2022	NSF ADVANCE ACCESS+ DEI Mini-Grant	\$2,000 USD
2022	Mitacs Globalink Research Award	\$6,000 CAD
2020	IAGLR Scholarship	\$2,000 USD
2018-2020	Ontario Graduate Scholarship (×2)	\$30,000 CAD
2016-2020	NSERC CREATE Doctoral Scholarship	\$84,000 CAD
2018	OFAH Fisheries Research Grant	\$4,000 CAD
2016-2018	University Graduate Scholarship (×3)	\$9,000 CAD
2016-2018	SETAC North America Student Travel Grant (×2)	\$1,000 USD
2016	Graduate Excellence Entrance Scholarship	\$30,000 CAD
2015	Dean's Scholarship	\$500 CAD
2014	OSCIA Research Scholarship	\$1,000 CAD
2011	URA Award in Department of Chemistry	\$6,500 CAD

\*Ranked 'Outstanding' (above 80<sup>th</sup> percentile) in all NSERC selection criteria (i.e., research ability and potential, communication, interpersonal, and leadership abilities, and overall relative standing out of 74 applications in Selection Committee for Evolution and Ecology)

#### Grants Pending

2024-	USDA NIFA AFRI A1112 (Pest and Beneficial Species in Agricultural Production Systems) – “Field Evolved-and-Resequencing Experiments to Improve Identification and Management of Insecticide Resistance Evolution”	\$630,000 USD
2024-	OMAFRA Alliance Tier 1 Research Program – “Field experiments and genomic tools to improve identification and management of insecticide resistance evolution in <i>Drosophila suzukii</i> (Spotted Wing <i>Drosophila</i> )”	\$240,000 CAD

2024–	Niagara Peninsula Fruit and Vegetable Growers Association Small Grant – “Insecticide Resistance Management in Spotted Wing <i>Drosophila</i> ”	\$10,000 CAD
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### Honors & Prizes

2022	IFHAB Best Student Paper Award	\$750 CAD
2021	ACS ES&T Water Best Paper Award	
2020	Rockefeller Foundation Food System Vision Prize (Semi-Finalist) <sup>†</sup>	
2016	SETAC North America Best Presenter Award (2 <sup>nd</sup> Place)	\$500 USD
2013	André Auger Citizenship Award	
2011	International Film Contest Winner, Tony Blair Institute for Global Change	

<sup>†</sup>Co-PI. Selected as one of 75 semi-finalists from 1,300 applicants worldwide

### TEACHING EXPERIENCE

**Mentorship** ( \* authored publication during mentorship | † research presented at a conference )

2024–	Brynne Ruotsalainen	HHMI RAISE paid undergraduate researcher (WSU)
2024–	Cristian Zetina	Paid undergraduate researcher (WSU)
2024–	Amir Gabidulin*†	Postbaccalaureate researcher (WSU)
2023–	Timur Gabidulin	Paid undergraduate science illustrator (WSU)
2023–2024	Lily Jonas	Undergraduate research for credit program (WSU)
2023–2024	Ellie Andrews*†	Paid undergraduate researcher (WSU)
2023–2024	Kayley Breslin	Undergraduate honors thesis (U. Guelph)
2022–2023	William Smith†	Undergraduate co-op term (U. Guelph)
2021–2023	Megan Braun†	Undergraduate honors thesis & lab volunteer (U. Guelph)
2021–2022	Julia Bourdeau†	Lab volunteer (U. Guelph)
2021–2022	Mathew Mervyn†	Undergraduate honors thesis & lab volunteer (U. Guelph)
2019–2020	Gabrielle Hankins*†	Undergraduate research for credit program (U. Guelph)
2019–2020	Kate Hubbs*†	Undergraduate research for credit program (U. Guelph)
2019–2020	Polina Konopelko*†	Undergraduate research for credit program (U. Guelph)
2019–2020	Michael Sanarcki*†	Undergraduate research for credit program (U. Guelph)
2019–2020	Damn Strong*†	Undergraduate research for credit program (U. Guelph)
2019–2020	Angela Vander Eyken*†	Undergraduate research for credit program (U. Guelph)
2018–2019	Samantha Gene*†	Undergraduate volunteer (U. Guelph)

### Courses Taught

2018–2019	Teaching Assistant	Capstone Project in Environmental Sciences (U. Guelph) Evaluation: 4.8/5.0 ( <i>n</i> = 88 students)
2017–2018	Teaching Assistant	Capstone Project in Environmental Sciences (U. Guelph) Evaluation: 4.7/5.0 ( <i>n</i> = 70 students)
2016	Teaching Assistant	Pesticides and the Environment (U. Guelph) Evaluation: 4.5/5.0 ( <i>n</i> = 120 students)
2015–2016	Teacher	Youth Empowerment STEM Course, grades 7 & 8 (Westwood Public School) Evaluation: 4.2/5.0 ( <i>n</i> = 43 students)
2013–2014	Teacher	Youth Empowerment STEM Course, grades 7 & 8 (Gateway Drive Public School) Evaluation: 4.0/5.0 ( <i>n</i> = 45 students)

### Guest Lectures

2024	Evolution of pesticide resistance	Pesticides and the Environment ENVS3020 (U. Guelph)
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2024	Health risks of algae blooms	Human Health and the Environment ENVS6882 (U. Guelph)
2021	Microcystin toxicology	Multiple Stressors in the Great Lakes ENVS6470 (U. Guelph)

### Professional Training

2019	Graduate Research and Project Management	Certificate course (U. Guelph)
2018	University Teaching: Theory and Practice	Credit course (U. Guelph)

### INVITED TALKS

2022	Department of Biology, University of Waterloo	Canada
2022	School of Biological Sciences, Washington State University	United States
2022	Department of Biology, University of New Brunswick Saint John	Canada
2022	Department of Integrative Biology, University of Windsor	Canada
2022	Department of Biology, Mount Allison University, Canada	Canada
2021	Lake Erie Management Fisheries Zone 19, Canada	Canada
2021	Lake Erie Partnership Working Group, Canada	Canada
2021	Ontario Ministry of Natural Resources and Forestry, Canada	Canada
2021	Department of Biology, Queen's University, Canada	Canada
2020	Rockefeller Foundation and EAT Foundation, Norway	Norway
2018	Ontario Federation of Anglers and Hunters, Canada	Canada

### SERVICE TO PROFESSION & SOCIETY

#### Contributions to Diversity, Equity, and Inclusion

2021–	<b>Co-Chair</b> , DEI Committee (International Association for Great Lakes Research) Successfully funded an NSF ADVANCE ACCESS+ DEI Mini-Grant (\$2,000) to create two new DEI student scholarships (\$1,000 ea.) to support underrepresented minority/equity-seeking groups, awarded annually at the IAGLR conference
2022–2025	<b>Member</b> , DEI Committee (Dept. Integrative Biology, U. Guelph) Co-developed a departmental Terms of Reference document to systematize the committee's operations, expectations, and goals upon appointment each year Revised DEI guidelines for hiring, tenure and promotion in the department Advocated to the department on behalf of underrepresented minority/equity-seeking students to financially support field research experiences (e.g., <b>FREED Program</b> ) Revising departmental <b>URA/USRA</b> hiring guidelines, encouraging faculty to incorporate DEI principles into student recruitment
2012–2016	<b>Founder</b> , Youth Empowerment STEM Course (Upper Grand District School Board) Developed and taught a weekly course, offered annually, in two under-resourced primary schools (Gateway Drive Public School and Westwood Public School, ON, Canada) using STEM course materials from the Junior Youth Empowerment Program, which engaged 103 seventh and eighth grade students from diverse ethnic and socioeconomic backgrounds Awarded U. Guelph's André Auger Citizenship Award (2013) for service to society
2007–2016	<b>Co-Founder</b> , Junior Youth Empowerment Program (Guelph, ON, Canada) Co-founded a neighbourhood-based program engaging 11-15 year-olds from diverse ethnic and socioeconomic backgrounds using STEM course materials designed to help to develop their capacities to: read, write, and speak; articulate complex thoughts; serve their communities; and reflect on their patterns of thought and action
2017–	<b>Professional Training</b>

2023	Training workshops on DEI, anti-oppression, microaggression, & anti-bias	(U. Guelph)
2022	Community & Equity Certificate Program	(WSU)
2022	Principles of Belonging: Anti-Oppression & Anti-Racism Training	(U. Guelph)
2017	Diversity and Human Rights Faculty Recruitment Training	(U. Guelph)

### Departmental

2022–2025	<b>Member</b> , DEI Committee	(Dept. Integrative Biology, U. Guelph)
2018–2020	<b>Member</b> , Undergraduate Curriculum Committee	(School of Env. Sciences, U. Guelph)
2016–2020	<b>Member</b> , Communications and Outreach Committee	(School of Env. Sciences, U. Guelph)
2016–2020	<b>Organizing Committee</b> , Kenneth Hammond Lecture	(School of Env. Sciences, U. Guelph)
2017–2018	<b>Search Committee</b> , Assistant Professor in Soil Science	(School of Env. Sciences, U. Guelph)

### External

2017–	<b>Founding Member</b>	(Interdisciplinary Freshwater Harmful Algal Blooms Workshop)
2021–2024	<b>Board of Directors</b>	(International Association for Great Lakes Research)

### Ad-hoc Reviewer (number of papers reviewed per journal)

2017–	Aquatic Toxicology (5), Bioinformatics Advances (1), Biology (1), Biology Letters (1), Chemosphere (6), Comprehensive Reviews in Food Science and Food Safety (1), Ecological Informatics (2), Ecology and Evolution (1), Ecotoxicology and Environmental Safety (22), Environmental Chemistry and Ecotoxicology (1), Environmental Management (1), Environmental Pollution (5), Environmental Quality Management (1), Environmental Science and Pollution Research (7), Environmental Science & Technology (1), Environmental Toxicology and Chemistry (2), Freshwater Biology (1), Frontiers in Microbiology (1), Frontiers in Toxicology (1), Harmful Algae (4), Journal of Environmental Management (3), Journal of Hazardous Materials (6), Journal of Industrial and Engineering Chemistry (1), Marine and Freshwater Behaviour Physiology (1), Marine Pollution Bulletin (2), Neurotoxicity Research (1), Pest Management Science (1), Reviews of Environmental Contamination and Toxicology (1), Science of the Total Environment (37), Toxicon (5), Water Research (1)
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### Ad-hoc Grant Reviewer

2021–	BiodivERsA (1), French National Research Agency (1), Water JPI (1)
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## CONFERENCE ACTIVITY/PARTICIPATION

### Conferences/Symposia Organized

2024	6 <sup>th</sup> IFHAB Workshop, 100-150 participants	(ON, Canada)
2023	5 <sup>th</sup> IFHAB Workshop, 100-150 participants	(QC, Canada)
2022	12 <sup>th</sup> International Conference on Toxic Cyanobacteria, 300-400 participants	(OH, USA)
2021	IFHAB Webinar: The Future of Freshwater HABs Research, 200 participants	(QC, Canada)
2020	4 <sup>th</sup> IFHAB Workshop – <i>cancelled due to Covid-19</i>	
2019	3 <sup>rd</sup> IFHAB Workshop, 100-150 participants	(ON, Canada)
2018	2 <sup>nd</sup> IFHAB Workshop, 100-150 participants	(ON, Canada)
2018	Kenneth Hammond Lecture & Spring Sustainability Symposium, 90 participants	(U. Guelph)
2017	1 <sup>st</sup> IFHAB Workshop, 100 participants	(ON, Canada)
2017	Kenneth Hammond Lecture & Spring Sustainability Symposium, 75 participants	(U. Guelph)

### Panels Organized



- 2022 Current and future issues in HAB detection, monitoring, mitigation and management  
12<sup>th</sup> International Conference on Toxic Cyanobacteria (OH, USA)
- 2017 Harmful algal bloom toxins in biota of the Great Lakes  
Canadian Ecotoxicity Workshop (ON, Canada)
- 2017 The Science and Policy of Multiple Stressors and Cumulative Effects in the Great Lakes  
60<sup>th</sup> IAGLR Conference (MI, USA)

### Invited Panelist

- 2022 Experts in the hot seat: Greatest challenges facing the management and reduction of HABs  
12<sup>th</sup> International Conference on Toxic Cyanobacteria (OH, USA)
- 2020 The state of Great Lakes research in the face of COVID-19  
IAGLR 63<sup>rd</sup> Conference (MB, Canada)

### Conference Presentations (\* presenting author | Total: 29 presentations)

- Shahmohammadloo, R.S.\***, Fryxell, J.M., Rudman, S.M. (2024) Transgenerational epigenetic inheritance increases trait variation but is not adaptive. 3<sup>rd</sup> Joint Congress on Evolutionary Biology. Montréal, QC, Canada. International Conference. Oral Presentation (PDF work).
- Shahmohammadloo, R.S.\***, Fryxell, J.M., Rudman, S.M. (2024) Transgenerational epigenetic inheritance increases trait variation but is not adaptive. CSEE 2024. Vancouver, BC, Canada. National Conference. Oral Presentation (PDF work).
- Rudman, S.M.\*, Greenblum, S.I., **Shahmohammadloo, R.S.**, Petrov, D.A., Schmidt, P. (2023) The eco-evolutionary consequences of rapid adaptation. EVO-WIBO 2023. Port Townsend, WA, USA. Regional Conference. Oral Presentation (PDF work).
- Shahmohammadloo, R.S.\***, Ortiz Almirall, X., Simmons, D.B.D., Bhavsar, S.P., Rudman, S.M., Fryxell, J.M., and Sibley, P.K. (2022) Harmful algal blooms of the cyanobacterium *Microcystis* cause deleterious effects in aquatic organisms: Implications for freshwater biodiversity conservation. 12<sup>th</sup> International Conference on Toxic Cyanobacteria, Toledo, OH, USA. International Conference. Poster Presentation (PDF work).
- Shahmohammadloo, R.S.**, Ortiz Almirall, X., Simmons, D.B.D., Bhavsar, S.P., and Sibley, P.K.\* (2022) Harmful algal blooms of the cyanobacterium *Microcystis* cause deleterious effects in aquatic organisms: Implications for freshwater biodiversity conservation. JASM, Grand Rapids, MI, USA. International Conference. Oral Presentation (PDF work).
- Shahmohammadloo, R.S.\***, Rudman, S.M., and Fryxell, J.M. (2021) From genes to populations: intraspecific genetic variation in the sublethal effects of harmful algae. SETAC North America 42<sup>nd</sup> Annual Meeting, Portland, OR, USA. International Conference. Oral Presentation (PDF work).
- Shahmohammadloo, R.S.\***, Rudman, S.M., and Fryxell, J.M. (2021) Intraspecific genetic variation in the sublethal effects of harmful algae. Canadian Society of Ecology and Evolution, University of British Columbia, BC, Canada. National Conference. Oral Presentation (PDF work).
- Sibley, P.K.\*, **Shahmohammadloo, R.S.**, Knight, A., Simmons, D.B.D., Bhavsar, S.P., Ortiz Almirall, X., Rudman, S.M., Fryxell, J.M., Holeyton, C., and Poirier, D.G. (2021) The ecotoxicology of microcystins in freshwater environments: prospects for future research. Interdisciplinary Freshwater Harmful Algal Blooms Webinar: The Future of Freshwater Harmful Algal Blooms Research, University of Montréal, QC, Canada. International Conference. Oral Presentation (PDF work).
- Shahmohammadloo, R.S.\***, Ortiz Almirall, X., Simmons, D.B.D., Lumsden, J.S., Bhavsar, S.P., Watson-Leung, T., Vander Eyken, A., Hankins, G., Hubbs, K., Konopelko, P., Sanarcki, M., Strong, D., and Sibley, P.K. (2021) Microcystins in both intracellular and extracellular states can cause disease-related effects in Rainbow Trout (*Oncorhynchus mykiss*). IAGLR 64<sup>th</sup> Conference (Virtual), Michigan Technological University, MI, USA. International Conference. Oral Presentation (PhD work).
- Shahmohammadloo, R.S.\***, Ortiz Almirall, X., Simmons, D.B.D., Lumsden, J.S., Bhavsar, S.P., Watson-Leung, T., Vander Eyken, A., Hankins, G., Hubbs, K., Konopelko, P., Sanarcki, M., Strong, D., and Sibley, P.K. (2020) Distinguishing the toxicokinetics between intracellular and extracellular microcystin exposure to Rainbow Trout (*Oncorhynchus mykiss*). SETAC North America 41<sup>st</sup> Annual Meeting, SciCon2, Waco, TX, USA. International Conference. Oral Presentation (PhD work).

- Hataley, E.\*, Ortiz Almirall, X., Rochman, C.M., **Shahmohammadloo, R.S.**, Orihel, D.M. (2020) Sorption of Microcystins to Microplastics in Freshwater Ecosystems. SETAC North America 41<sup>st</sup> Annual Meeting, SciCon2, Waco, TX, USA. International Conference. Oral Presentation (PhD work).
- Shahmohammadloo, R.S.\***, Simmons, D.B.D., and Sibley, P.K. (2020) Shotgun proteomics analysis reveals sub-lethal effects in *Daphnia magna* exposed to cell-bound microcystins produced by *Microcystis aeruginosa*. IAGLR 63<sup>rd</sup> Conference (Virtual), Winnipeg, MB, Canada. International Conference. Poster Presentation (PhD work).
- Knight, A.\*, Ortiz Almirall, X., Bhavsar, S.P., **Shahmohammadloo, R.S.**, Sibley, P.K. (2020) Transgenerational development of microcystin toxin tolerance in *Daphnia magna*. IAGLR 63<sup>rd</sup> Conference (Virtual), Winnipeg, MB, Canada. International Conference. Oral Presentation (PhD work).
- Hataley, E.\*, Ortiz Almirall, X., Rochman, C.M., **Shahmohammadloo, R.S.**, Orihel, D.M. (2020) Assessing the sorption of the cyanotoxins microcystins to microplastics. Platform presentation. The LEADERS and PEOPLE 2020 Virtual Symposium: Water Management in a Changing Climate. Regional Conference. Oral Presentation (PhD Work).
- Sibley, P.K.\*, **Shahmohammadloo, R.S.** (2020) Building Resiliency in Agricultural Landscapes: A Conceptual Framework Focused on Risk Management. SETAC Europe 28<sup>th</sup> Annual Meeting, Dublin, IRE, Ireland. International Conference. Poster Presentation (PhD work).
- Gene, S.M.\*, **Shahmohammadloo, R.S.**, Ortiz Almirall, X., Prosser, R.S. (2019) Effect of *Microcystis aeruginosa*-associated microcystin-LR on the survival of 2 life stages of freshwater mussel (*Lampsilis siliquoidea*). Canadian Freshwater Mollusc Research Meeting, Burlington, ON, Canada. Regional Conference. Oral Presentation (PhD work).
- Shahmohammadloo, R.S.\***, Ortiz Almirall, X., Holeton, C., Bhavsar, S.P., Poirier, D.G., Sibley, P.K. (2019) Assessing the differences in uptake and depuration potential of intra- and extracellular microcystins in *Salvelinus namaycush* and *Oncorhynchus mykiss*. SETAC North America 40<sup>th</sup> Annual Meeting, Toronto, ON, Canada. International Conference. Poster Presentation (PhD work).
- Shahmohammadloo, R.S.\***, Ortiz Almirall, X., Holeton, C., Bhavsar, S.P., Poirier, D.G., Sibley, P.K. (2019) An efficient and affordable laboratory method to produce and sustain high concentrations of microcystins by *Microcystis aeruginosa*. SETAC North America 40<sup>th</sup> Annual Meeting, Toronto, ON, Canada. International Conference. Poster Presentation (PhD work).
- Hataley, E.\*, Ortiz Almirall, X., Rochman, C.M., **Shahmohammadloo, R.S.**, Orihel, D.M. (2019) Can microplastics act as a medium to concentrate waterborne microcystin? SETAC North America 40<sup>th</sup> Annual Meeting, Toronto, ON, Canada. International Conference. Poster Presentation (PhD work).
- Hataley, E.\*, Ortiz Almirall, X., Rochman, C.M., **Shahmohammadloo, R.S.**, Orihel, D.M. (2019) Can microplastics act as a medium to concentrate waterborne microcystin? Interdisciplinary Freshwater Harmful Algal Blooms Workshop 3<sup>rd</sup> Annual Meeting, Toronto, ON, Canada. International Conference. Poster Presentation (PhD work).
- Shahmohammadloo, R.S.\***, Poirier, D.G., Ortiz Almirall, X., Simmons, D.B.D., Stevack, K., Bhavsar, S.P., Sibley, P.K. (2018) *Microcystis aeruginosa* adversely impacts *Daphnia* spp.: Posing risks to food webs of the Great Lakes. SETAC North America 39<sup>th</sup> Annual Meeting, Sacramento, CA, USA. International Conference. Poster Presentation (PhD work).
- Shahmohammadloo, R.S.\***, Poirier, D.G., Ortiz Almirall, X., Holeton, C., Bhavsar, S.P., Sibley, P.K. (2018) *Microcystis aeruginosa* adversely impacts *Daphnia* spp.: Posing risks to food webs of the Great Lakes. IAGLR 61<sup>st</sup> Conference, Toronto, ON, Canada. International Conference. Oral Presentation (PhD work).
- Karakolis, E.G.\*, Bguyen, B., **Shahmohammadloo, R.S.**, Sibley, P.K., Sinton, D. (2018) Microplastics can adsorb microcystins. Interdisciplinary Freshwater Harmful Algal Blooms Workshop 2<sup>nd</sup> Annual Meeting, Toronto, ON, Canada. International Conference. Oral Presentation (PhD work).
- Simmons, D.B.D.\*, **Shahmohammadloo, R.S.**, Tabatabaie Anaraki, M., Chong-Kit, R., Poirier, D., Ortiz Almirall, X., Jobst, K., Reiner, E., Simpson, A., Simpson, M. (2018) Proteome responses of microcystin-exposed *Daphnia magna*. Interdisciplinary Freshwater Harmful Algal Blooms Workshop 2<sup>nd</sup> Annual Meeting, Toronto, ON, Canada. International Conference. Oral Presentation (PhD work).
- Simmons, D.B.D.\*, **Shahmohammadloo, R.S.**, Tabatabaie Anaraki, M., Chong-Kit, R., Poirier, D.G., Ortiz Almirall, X., Jobst, K., Reiner, E., Simpson, A., Simpson, M. (2017) Proteome responses of microcystin-



exposed *Daphnia magna*. Canadian Ecotoxicity Workshop, Guelph, ON, Canada. Regional Conference. Oral Presentation (PhD work).

**Shahmohammadloo, R.S.\*** (2017) A resourceful approach to managing sewage sludge: An effects-based look at the micro-constituents in land-applied biosolids. FarmSmart Conference: Municipal Biosolids Beneficial Use Education Day, Milton, ON, Canada. Regional Conference. Oral Presentation (MSc work).

**Shahmohammadloo, R.S.\***, Sibley, P.K. (2016) Evaluating the effects of triclosan on field crops and arbuscular mycorrhizal fungi in biosolids-amended soil. Water Environment Association of Ontario Annual Residuals and Biosolids Conference, Calgary, AB, Canada. Regional Conference. Oral Presentation (MSc work).

**Shahmohammadloo, R.S.\***, Sibley, P.K. (2015) Evaluating the effects of triclosan on field crops and arbuscular mycorrhizal fungi in biosolids-amended soil. SETAC North America 36<sup>th</sup> Annual Meeting, Salt Lake City, UT, USA. International Conference. Oral Presentation (MSc work).

**Shahmohammadloo, R.S.\***, Sibley, P.K. (2014) Evaluating the effects of triclosan on field crops and arbuscular mycorrhizal fungi in biosolids-amended soil. Canadian Ecotoxicity Workshop 41<sup>st</sup> Annual Meeting, Ottawa, ON, Canada. National Conference. Oral Presentation (MSc work).

## LANGUAGES

English (Native proficiency), French (Limited working proficiency), Persian (Limited working proficiency)

## PROFESSIONAL MEMBERSHIPS

Society for the Study of Evolution (SSE), Canadian Society for Ecology and Evolution (CSEE), International Association for Great Lakes Research (IAGLR), Society of Environmental Toxicology and Chemistry for North America (SETAC NA), Laurentian Chapter for the Society of Environmental Toxicology and Chemistry (L-SETAC)