

Shahinur S. Islam

Curriculum Vitae

CONTACT

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PROFESSIONAL EXPERIENCES

Postdoc 2024- University of California Davis
(01.01.24-) **Supervisor:** Dr. Andrea Schreier (Department of Animal Science)

Postdoc 2022-23 University of Windsor, Canada
(01.16.22-12.31.23) **Supervisors:** Drs. Ken Jeffries (U. Manitoba) and Daniel Heath (U. Windsor)

EDUCATION

Ph.D 2021 **Department of Ocean Sciences**, Memorial University, NL, Canada
(09.01.15-12.15.21) **Thesis Supervisor:** Dr. Ian Fleming (Memorial University, NL, Canada)

M.S. 2015 **Erasmus Joint MSc in Marine Environment and Resources (First Class)**
Uni. of Bordeaux (France); Uni. of the Basque Country (Spain); Uni. of Liege
(Belgium); Concordia Uni., Montreal, Canada (Visiting Research Fellow)
Thesis Supervisor: Dr. Dylan Fraser (Concordia University, Canada)

M.S. 2012 **Fish Genetics & Biotechnology**, Khulna University, Bangladesh (**Distinction**)

B.S. 2010 **Fisheries Science (Hons)**, Khulna University, Bangladesh (**Distinction**)

AWARDS & SCHOLARSHIPS

Major Awards and Scholarships

2022-2023	MITACS Accelerate Postdoctoral Internship, Canada	60,000 CAD
2015-2019	SGS Fellowship, Faculty of Science, MemorialU, Canada	34,000 CAD
2013-2015	Erasmus Mundus Master Scholarship by European Union	48,000 EUR

Other Awards and Scholarships

2022	Genetics Society of America (GSA) Presidential Membership award	-
2021	TAUMUN award for outstanding contribution in teaching, MemorialU	300 CAD

2019	Summer Ins. Stat. Genetics, Dept of Biostatistics, U. Washington, USA	1,200 USD
2011	NSICT Research Fellowship, Ministry of Science, Bangladesh	~1000 CAD

PEER-REVIEWED PUBLICATIONS

16. **S. S. Islam**, D. D. Heath, B. Dixon, P. Karpowicz, Kelvin Vuu, J. Lablanc, N. J. Bernier, and K. M. Jeffries, 2024. Development of multi-species qPCR assays for designing a stress transcriptional profiling (STP) chip for assessing the resilience of salmonids to changing environments. (**Submitted- *Canadian Journal of Fisheries & Aquatic Sciences***) (<https://biorxiv.org/cgi/content/short/2024.09.25.615083v1>)
15. G. Banousse, S. Christina, G. Dany, J. Jennifer, **S. S. Islam**, B. Nicholas, J. Kenneth and A. Céline, 2024. Genetic and environmental basis of transcriptional thermal plasticity of Brook Charr fry. (**Submitted- *Canadian Journal of Fisheries & Aquatic Sciences***)
14. V. A. Felicia, K. W. Wellband, **S. S. Islam**, O. P. Love and D. D. Heath, 2024. Great Lakes invasive round goby gene transcription profiles: Adaptive acclimation to thermal stress in range-edge populations. (**Submitted- *Scientific Reports***)
13. **S. S. Islam**, M. C. Yates, and D. J. Fraser. Single generation exposure to a captive diet: a primer for domestication selection in a Salmonid fish? (***bioRxiv***: doi: <https://doi.org/10.1101/2020.01.24.919175>)
12. E. H. Ignatz, X. Xue, J. R. Hall, **S. S. Islam**, M. L. Rise and I. A. Fleming, 2024. Defense-relevant gene expression differences in hatchling Atlantic salmon among wild Newfoundland and farmed European and North American populations and their hybrids. (**Accepted- *Molecular Ecology***) (DOI: 10.1111/mec.17535)
11. I. C. San Roman, I. R. Bradbury, S. E. Crowley, S. J. Duffy, **S. S. Islam**, and I. A. Fleming 2023. Experimental comparisons of changes in relative survival and fitness-related traits of wild, farm and hybrid Atlantic Salmon *Salmo salar* in nature. ***Aquaculture Environment Interactions*, 15: 323-337**
10. S. E. Crowley, I. R. Bradbury, A. M. Messmer, S. J. Duffy, C. C. Parrish, **S. S. Islam**, and I. A. Fleming, 2023. Differences in energy acquisition and storage of farm, wild and hybrid Atlantic salmon (*Salmo salar*) competing in the wild. ***Canadian Journal of Fisheries & Aquatic Sciences*, 80: 43-56**
9. **S. S. Islam**, B. F. Wringe, C. M. Conway, I. R. Bradbury and I. A. Fleming 2022. Fitness consequences of hybridization between wild Newfoundland and farmed European and North American Atlantic salmon. ***Aquaculture Environment Interactions*, 14: 243-262**

8. B. M. Perriman, P. Bentzen, B. F. Wringe, S. Duffy, **S. S. Islam**, I. A. Fleming, M. F. Solberg and I. R. Bradbury, 2022. Morphological consequences of hybridization between farm and wild Atlantic salmon, under both wild and experimental conditions. *Aquaculture Environment Interactions*, **14**: 85-96
7. **S. S. Islam**, X. Xue, A. Caballero-Solares, I. R. Bradbury, M. L. Rise and I. A. Fleming 2022. Distinct early-life stage gene expression effects of hybridization among European and North American farmed and wild Atlantic salmon populations. *Molecular Ecology*, **31 (9)**: 2712-2729
6. S. E. Crowley, I. R. Bradbury, A. M. Messmer, S. J. Duffy, **S. S. Islam**, and I. A. Fleming, 2022. Common-garden comparison of relative survival and fitness-related traits of wild, farmed, and hybrid Atlantic salmon (*Salmo salar*) parr in nature. *Aquaculture Environment Interactions*, **14**: 35-52
5. **S. S. Islam**, B. F. Wringe, K. Boe, I. R. Bradbury and I. A. Fleming 2021. Early-life fitness trait variation among divergent European and North American farmed and wild Atlantic salmon populations. *Aquaculture Environment Interactions*, **13**: 323-337
4. **S. S. Islam**, B. F. Wringe, I. R. Bradbury and I. A. Fleming 2020. Behavioural variation among divergent European and North American farmed and wild Atlantic salmon (*Salmo salar*) populations. *Applied Animal Behaviour Science*, **230**: 105029
3. S.M.B. Rahaman, S.K. Biswas, M.S. Rahaman, A.K. Ghosh, L. Sarder, S.M.S. Siraj and **S. S. Islam**, 2014. Seasonal nutrient distribution in the Rupsha-Passur tidal river system of the Sundarbans Mangrove Forest, Bangladesh. *Ecological Processes*, **3 (18)**: 1-11.
2. **S. S. Islam**, M. S. Shah and M. L. Rahi, 2014. Assessment of genetic variability of Prawn (*Macrobrachium rosenbergii*) post larvae (PL) from the broods stocked under different sex ratios. *Int. Journal of Aquaculture*, **4(9)**: 55-63.
1. **S. S. Islam**, M. S. Shah and M. L. Rahi, 2011. Study of Fecundity and Induced Breeding of *Mystus vittatus*. *Bangladesh Journal of Zoology*, **39(2)**: 205-212.

RESEARCH INTERESTS

- Ecology, Evolution & Physiology
- Functional, Population & Conservation Genetics/Genomics
- Quantitative, Immuno- & Behavioral Genetics/Genomics

COURSES TAUGHT

2024 (Fall)	Teaching (Instructor)	Graduate Seminar in Ecology (UC Davis)
2021	Teaching Assistant	Aquaculture Principles & Practices (MemorialU)

2020-2021	Teaching Assistant	Principles of Biology (MemorialU)
2020-2021	Teaching Assistant	Principles of Biology (Lab) (MemorialU)
2019-2020	Teaching Assistant	Aquatic Ecology (Lab) (MemorialU)
2018	Teaching Assistant	Model Based Statistics in Biology (MemorialU)

TEACHING & RESEARCH EXPERIENCES

2021-2022	Research Associate, Drs. Daniel Heath & Ken Jeffries Lab (U. Windsor & Manitoba)
2021	Research Assistant, Rise & Fleming Lab, Dept. of Ocean Sciences, MemorialU, CA
2019-2021	Graduate Teaching Assistant, Dept. of Ocean Sciences, MemorialU, Canada
2018-2021	Graduate Teaching Assistant, Dept. of Biology, MemorialU, Canada
2015	Graduate Research Assistant, Department of Biology, Concordia University, Canada
2013-2014	Graduate Research Assistant, University of the Basque Country, Spain
2012-2013	Research Associate, Bangladesh Agri. Uni (in collaboration with NC State Uni, USA)

PRESENTATIONS

Invited/Guest Speaker

2024	Department of Animal Science (Fall Seminar Series), University of California Davis
2024	Fish Conservation and Culture Laboratory, University of California Davis
2016	Department of Ocean Sciences, Memorial University, NL, Canada
2015	Experimental Marine Biotechnology Research Station, Uni. of Basque Country, Spain
2014	Conservation Genetics Symposium, University of Basque Country, Spain

Podium

2024	Bay-Delta Science Conference (Longfin Smelt Symposium), Sacramento, California, USA
2024	UC Davis 9 th Annual Postdoctoral Research Symposium 2024, Davis, CA, USA
2024	Gene, Genetics & Genomics Symposium (*Presenter: Dr. Daniel Heath), SCAS, NB, Canada
2023	Gene, Genetic & Genomics Sym., Society of Canadian Aquatic Science (SCAS), MTL, Canada
2022	Ecological Society of America (ESA) & CSEE joint meeting, Montreal, Canada
2021	Ocean Frontier Institute (OFI) Module J Symposium (Virtual), St John's, NL, Canada
2020	Sustainable Aquaculture & Fisheries Symposium (SAFS-OFI), St John's, NL, Canada
2019	Canadian Society for Ecology and Evolution (CSEE), Fredericton, NB, Canada
2019	Aldrich Conference, Memorial U. St John's, NL, Canada
2019	Biology Graduate Student Symposium (BGSS), MUN, NL, Canada
2018	Ocean Frontier Institute (OFI), Memorial U. St John's, NL, Canada
2018	Canadian Society for Ecology and Evolution (CSEE), U of Guelph, ON, Canada
2018	Canadian Society of Zoology (CSZ), Memorial U, St John's, NL, Canada (also Organizer)
2017	Biology Graduate Student Symposium (BGSS), MUN, NL, Canada
2016	Aquaculture Canada & Cold Harvest 2016 (ACCH), St John's, NL, Canada
2016	Canadian Conference for Fisheries Research (CCFFR), St John's, NL, Canada (Organizer)
2013	5 th Fisheries Conference and Research Fair, Dhaka, Bangladesh

2012 International Science Seminar, Asiatic Society of Bangladesh, Bangladesh

Poster

2024 American Genetic Association (AGA) President's Symposium, Tahoe, California

2011 18th National Fisheries Conference, Jahangirnagar University, Bangladesh

TRAINING/ WORKSHOP/ INTERNSHIP

2024 PSA Writing Retreat Workshop (led by PSA members & myself), UC Davis, Davis, USA

2023 NCBI workshop: Exploring the relationship between Eukaryotic genomes by Genome Viewer

2023 RNA-seq analysis workshop, The Computational Biology Core, U. Connecticut, USA

2022 GLIER (genomic workshop led by S. S. Islam), University of Windsor, Canada

2019 Summer Institute of Statistical Genetics, Dept of Biostatistics, University of Washington, USA

2014 Internship at Cellular & Molecular Biology Dept, University of Basque Country, Spain

2012 Training on Fisheries Biotechnology, Khulna University & Washington State University, USA

MEDIA/MAGAZINE

2019 Sustainable Aquaculture: Identifying The Impacts Of Escaped Hatchery Fish. *Prescience*, Vol. 8 (2019), p.17.

2018 Weighing The Risks. *Sustainable Aquaculture*. MUN Gazette, MemorialU, March 2, 2018.

MENTORING

Supervised Graduate Research Students

2023-2024 Andrew Howarth (PhD- Carleton University)

2022-2023 Nicholas Tugui (MSc- U. Windsor); Patricia Voyer (MSc- U. Windsor)

2017-2018 Samantha Crowley (MSc- MemorialU); Sindy Dove (MSc-MemorialU)

Supervised Research Assistants

2022 Patricia Voyer (U. Windsor)

2016-2018 Devin Saunders (2017-2018); Arielle Przybysz (2016) (MemorialU)

Supervised Undergraduate Research Students

2015-2018 Gerissa Fowler (2015/16); Arielle Przybysz (2016); Kristen Lo (2016/17); Devin Saunders (2016/17); Jillian Conway (2018) (MemorialU)

Co-supervised Undergraduate Research Students

2019-2020 Taylor Hughes (2019); Keeley Blanchard (2019) (MemorialU)

COMMITTEE MEMBERSHIP

2024- Secretary, UC Davis Postdoctoral Scholars Association (PSA)

2022-2023 Secretary, American Fisheries Society-Ontario Chapter (AFS-ON Chapter)

2021-2022 Mentorship, American Society of Naturalists & EEB Mentor Match

2021-2022 Diversity, Equity, and Inclusion (DEI) Committee, Canadian Society of Zoology (CSZ)
 2017-2018 Communication Coordinator MemorialU Ocean Sciences Graduate Student Association
 2018-2020 Interpreter/trainer, Educational Program, Ocean Science Centre, MemorialU

COMMUNITY OUTREACH

2024 Judge, UC Davis Postdoctoral Research Symposium (9th annual), UC Davis, CA, USA
 2024 Volunteered, Picnic Day, Department of Animal Science, UC Davis, CA, USA
 2023 Judge, Integrative Biology Graduate Symposium, University of Windsor, Canada
 2017-2018 Interpreter, Science Rendezvous, Faculty of Science, MemorialU
 2015-2020 Volunteered, BGSA & OSGSA activities, MemorialU

REVIEWER (PEER-REVIEWED JOURNALS)

- Proceedings of the Royal Society B (1)
- Aquaculture (1)
- Environmental Biology of Fishes (1)
- Aquaculture International (2)
- BMC Genomic Data (1)

PROFESSIONAL ORGANIZATIONS

- Society for the Study of Evolution (SSE)
- Genetics Society of America (GSA)
- American Genetic Association (AGA)
- American Society of Naturalists (ASN)
- American Fisheries Society (AFS)
- Canadian Society of Ecology & Evolution
- Canadian Society of Zoology (CSZ)
- Society of Canadian Aquatic Sciences

REFERENCES

- Dr. Ian Fleming, Ex-Director and Professor, Ocean Science Centre, Department of Ocean Sciences, Memorial University, NL, Canada. E-mail: ifleming@mun.ca
- Dr. Andrea Schreier, Director, Genomic Variation Lab, Adjunct Associate Professor, Department of Animal Science, University of California Davis. Email: amdrauch@ucdavis.edu
- Dr. Ken Jeffries, Associate Professor, Department of Biological Sciences, University of Manitoba, Canada. Email: Ken.Jeffries@umanitoba.ca
- Dr. Daniel Heath, Emeritus Professor, Department of Integrative Biology & Great Lakes Institute for Environmental Research, Uni. of Windsor, Canada. Email: dheath@uwindsor.ca
- Dr. Matthew Rise, Professor and Head, Department of Ocean Sciences, Memorial University of Newfoundland, Canada. Email: mrise@mun.ca