
Sarah S Hasnain

Curriculum Vitae
sarah.s.hasnain@gmail.com

Citizenship: Canadian

Professional Appointments

Assistant Professor

Habib University, Integrated Sciences and Mathematics Aug 2019 – Present

Post-Secondary Education

PhD Biology

Queen's University 2012 - 2019

M.Sc. Ecology and Evolutionary Biology

University of Toronto 2010 - 2012

B.Sc. (Honors)

University of Toronto 2005 – 2009

Non-Academic Experience

Ontario Ministry of Natural Resources and Forestry

Research Contractor – Systematic review of thresholds, indicators, and critical points used in fisheries conservation and management 2020 - Present

Fisheries and Oceans Canada

Fisheries Protection Program

Research Contractor – Systematic review of shoreline alteration impacts on temperate freshwater fish productivity 2017 – 19

Great Lakes Laboratory for Fisheries and Aquatic Sciences

Data and Statistical Consultant – Analysis and summary of fish productivity for rivers in Nova Scotia, Quebec, and Newfoundland 2014 – 15

Research Contractor – Literature review of impacts of climate change on fish communities and food webs in Great Lakes and Prairie Regions 2012

Fish Habitat Scientist – Cumulative assessment of fish habitat changes along the Toronto Waterfront 2009-2010

Programming Skills: R, Perl, bash scripting, regular expressions

Scholarships and Awards

Ecological Dissertations in Aquatic Sciences XII travel award (2016)
Canadian Aquatic Invasive Species Network Travel Award (2016)
Muskoka Summit for the Environment Graduate Research Grant (2014)
Ontario Graduate Scholarship (2014)
Queens Entrance Tuition Award (2012)
Minns Family Bursary in Ecology and Evolution (2010)
Edna Margaret Robertson Scholarship (2010)

Publications

Hasnain, S.S. and Arnott S.E. (2019) Water clarity influences anti-predator behaviour of native prey (*Daphnia*) to an invasive predator, (*Bythotrephes longimanus*). *Hydrobiologia* 838:139-151.

Sinclair, J.S., Lockwood, J.L., **Hasnain, S.S.**, Cassey, P. and Arnott, S.E. (2019) A framework for predicting which individuals and species are introduced as non-natives. *Biological Invasions*: 1-15.

Hasnain, S.S., Escobar, M.D. and Shuter, B.J. (2018). Estimating thermal response metrics for North American freshwater fish using Bayesian Phylogenetic Regression. *Canadian Journal of Fisheries and Aquatic Sciences*, 75:1878-1885.

Abdel-Fattah, S., and **Hasnain, S.*** (2017). Systematic Review of Shoreline Works Activities and their Impacts on Fish Productivity: Guidelines for Literature Review. *Environmental Evidence*, 6 (31): DOI 10.1186/s13750-017-0110-2.

Guy-Haim, T., Alexander, H., Bell, T.W., Brier, R.L., Bortolotti, L., Briseño-Avena, C., Dong, X., Flanagan, A.M.; Grosse, J., Grossmann, L., **Hasnain, S.**, Hovel, R., Johnston, C.A., Miller, D.R., Muscarella, M., Noto, A., Reisinger, A.J., Smith, H.J., Stamieszkin, K. (2017). How do experimental characteristics of aquatic mesocosms change the direction and magnitude of effect sizes in climate change research? A systematic review protocol. *Environmental Evidence* 6 (6): DOI 10.1186/s13750-017-0084-0.

Hasnain, S.S., Shuter B.J. and Minns, C K. (2013) Phylogeny influences thermal response in North American freshwater fish. *Canadian Journal of Fisheries and Aquatic Sciences* 70: 964-972.

* denotes equal authorship

Technical reports

Hasnain, S.S. (2016) Impacts of Climate Change on Fish Communities and Food Webs of Great Lakes, St. Lawrence River and Saskatchewan-Nelson River watersheds. In Eds. Abdel-Fattah, S. Impacts of climate change on fish species and aquatic ecosystems in the Great Lakes and Prairie regions of Canada: a compilation of reports. *Canadian Manuscript Report on Fisheries and Aquatic Sciences* 3108: v + 95 p.

Hasnain, S.S., Minns, C.K. and Shuter, B.J. (2010) Climate Change Research Report CCRR-17: Key ecological temperature metrics for Canadian freshwater fishes. Sarnia ON: Applied Research and Development Branch, Ontario Ministry of Natural Resources.

Presentations

Invited Sessions

2019 Panel discussion, Anthropocene chaos and search for an ordering framework,
Karachi, Pakistan

Contributed Papers

2020 Festival of Ecology, British Ecological Society Annual Meeting (Online)

2016 Ecological Dissertations in Aquatic Sciences XII, Honolulu, Hawaii

2016 Marine and Freshwater Invasive Species Conference, Buenos Aires,
Argentina

2016 Annual Meeting of the International Society for Bayesian Analysis, Sardinia, Italy

2015 Annual meeting of the Canadian Aquatic Invasive Species Network, Windsor, ON

2015 Society for Canadian Limnologists, Ottawa ON

2014 Annual meeting of the Canadian Aquatic Invasive Species Network, Halifax, NS

2013 Annual meeting of the Canadian Aquatic Invasive Species Network, Kananaskis,

AB

2012 Joint Meeting - Canadian Conference for Fisheries Research and Society of
Canadian Limnologists, Windsor, ON

2012 Annual meeting of the American Fisheries Society, St. Paul's, MN

2011 Annual meeting of the American Fisheries Society, Seattle, WS

2012 Joint Meeting - Canadian Conference for Fisheries Research and Society of

Canadian Limnologists, Toronto, ON
 2010 International Conference on Great Lakes Research, Toronto, ON

Teaching Experience

Habib University – Instructor

2019 - Present Introduction to Ecology and Evolutionary Biology
 2020 - Present Scientific Methods
 2021 Biodiversity in the City
 2020 Introduction to Practical Statistics
 2019 Introduction to Sustainability

Queen's University -Teaching Assistant

2016 Biostatistics Instructor – Queen's University Math Camp
 2016 History and Philosophy of Science
 2015 Advanced Statistics
 2014-2016 Introduction to Statistics
 2014 Community and Ecosystem Ecology
 2013 Biodiversity of Life I
 2012 Biodiversity of Life II

University of Toronto – Teaching Assistant

2012 From Genomes to Ecosystems in a Changing World
 2011 Community Ecology
 2011 Molecular and Cell Biology
 2010 Adaptations and Biodiversity

Supervision of students

Undergraduate Students

Habib University

Owais bin Asad (Volunteer)	Mar 2020 – Present
Maheen Anees (Volunteer)	Mar 2020 – Present
Maaheen Ahmed Chandna (Volunteer)	Mar 2020 - Present
Atif Mehmood (Volunteer)	Mar 2020 – Present
Sara Mahmood (Volunteer)	Mar 2020 – Present
Binish Fatima Basathia (Volunteer)	Mar 2020 – Present
Mehdi Raza Khorasani (Volunteer)	Mar 2020 – Present
Syed Hasan Faaz Abidi (Volunteer)	Mar 2020 – Present
Saman Gaziani (Volunteer)	Mar 2020 – Present
Kabir Kumar (Volunteer)	Mar 2020 – Present
Anisa Aisha Ahmed (volunteer)	Mar 2020 – Present
Shazwin Syed Ali (volunteer)	Mar 2020 – Present
Amna Shoaib (Volunteer)	Mar 2020 – Present
Durresakina Somji (Volunteer)	Sep 2020 – Present
Aamena Shafi (Volunteer)	Sep 2020 – Present
Mudasir Hanif Sheikh (Undergraduate Research Project)	Oct 2019- Mar 2020
Rizwan Niaz Khajar (Undergraduate Research Project)	Oct 2019- Mar 2020
Rayyan ul Haq (Undergraduate Research Project)	Oct 2019- Mar 2020

Queen's University

Victoria Guba (Summer Work Experience Program)	Oct 2015
Erin Kelly (Summer Work Experience Program)	Sept 2015
Sarah Lamb (Summer Work Experience Program)	May – August 2014
Lauren Grubb (Lab volunteer)	Mar – May 2014
Amelia Corrigan (Undergraduate thesis student)	Sept 2013-May 2014
Megan Snetsinger (Undergraduate thesis student)	Sept 2013-May 2014
Phillip Anderson (Summer Work Experience Program)	May-August 2013

University of Toronto

Natalia Zlotnikov (Research Assistant)
Jim Truong (Research Assistant)

Jan - April 2009
Jan - April 2009

Affiliations and Service

Committee Membership

Online learning task force
University library committee
Field Ecologist search committee, Grad student representative
Renewal, tenure, and placement Committee, Grad student representative,

Habib University, 2020 - Present
Habib University, 2019-Present
Queen's University, 2013-14
Queen's University, 2013-15

Society Membership

Ecological Society of America, British Ecological Society, Canadian Aquatic Invasive Species Network II

Journal Refereeing

Canadian Journal of Zoology, Water Quality Research Journal of Canada, Frontiers in Ecology and Evolution, Functional Ecology

Volunteering and Outreach

Volunteer data analyst, Pakistan Air Quality Initiative
Volunteer Science and Math tutor for Pathways to Education aimed at helping students from at-risk communities complete high school
Volunteer Judge for the Frontenac Lennox & Addington Science Fair
Section Editor of CurioCity, an online science magazine for teenagers

2017 - 19
2014 - 16
2015
2008 – 2014

References

Dr. Shelley Arnott (PhD thesis supervisor, collaborator)

Department of Biology, Queen's University
116 Barrie Street, Kingston, Ontario, Canada, K7L 3N6
arnotts@queensu.ca

Dr. Michael Escobar (Research collaborator)

Dalla Lana School of Public Health, University of Toronto
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Dr. Brian Shuter (Master's thesis supervisor, collaborator)

Department of Ecology and Evolutionary Biology, University of Toronto
25 Harbord St, Toronto, Ontario, Canada, M5S 3G5
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