João Pedro Fontenelle

Postdoctoral Fellow · Institute of Forestry and Conservation

University of Toronto, 33 Willcocks St., Toronto/ON, Canada, M5S 3E8

fontene3@gmail.com | https://scholar.google.ca/citations?user=oVtKbp0AAAAJ&hl=en | https://github.com/jpfontenelle |
https://www.linkedin.com/in/jpfontenelle/

Education

University of Toronto Scarborough *Toronto/ON, Canada*

PhD in Environmental Sciences *May 2015 - September 2020*

- Advisor: Dr. Nathan Lovejoy
- Dissertation: The Influence of Environment, Landscape and Paleogeography on the Evolution and Diversification of Two Neotropical Fish Groups

Universidade de São Paulo *São Paulo/SP, Brazil*

MSc in Zoology *June 2011 - October 2013*

- Advisor: Dr. Marcelo de Carvalho
- Thesis: Taxonomic revision of the *Potamotrygon scobina* Garman, 1913 (Chondrichthyes: Myliobatiformes: Potamotrygonidae) complex, with biogeographical inferences

Universidade de São Paulo *São Paulo/SP, Brazil*

BSc in Biological Sciences *February 2006 - December 2010*

- Teaching degree in Biological Sciences
- Honors thesis research advisor: Dr. Marcelo de Carvalho
- Thesis: Morphologic study of the encephalon and cranial nerves of representatives from the family Potamotrygonidae (Chondrichthyes: Myliobatiformes): taxonomic and phylogenetic implications

Professional Experience

2023 - Current	**OG-CO PostDoctoral Fellow in Genome Data Science**, University of Toronto
2023- Current	**Visiting Scholar / Associated Researcher**, Museu Paraense Emilio Goeldi
2020- Current	**IUCN Red List of Threatened Species – Freshwater Biodiversity Unit**, International Union for Conservation of Nature
2020-2023	**PostDoctoral Fellow**, University of Toronto
2015-2020	**PhD Student**, University of Toronto Scarborough
2015-2020	**Graduate Teaching Assistant**, Department of Biological Sciences, University of Toronto Scarborough
2011-2013	**Master in Science Student**, Universidade de São Paulo
2011-2013	**Graduate Teaching Assistant**, Departamento de Zoologia, Universidade de São Paulo

Publications

Published

Magnuson A., Dean, M. N., Weaver, J. C., **Fontenelle, J.P.**, Lovejoy, N. R., Kolmann, M. A. 2024. Independent Transitions to Freshwater Environments Promote Phenotypic Divergence, Not Convergence, in Stingrays. Integrative and Comparative Biology, icae023

Elbassiouny A. A., **Fontenelle, J.P.**, Kočovský, P. M., Mandrak, N. E., Lovejoy, N. R. 2023. Genetic structure of the Silver Chub indicates distinctiveness of Lake Erie population. North American Journal of Fisheries Management, 43 (5): 1180-1189

Perez T. J. M., **Fontenelle, J.P.**, Kolmann, M. A., Angulo, A., López-Fernández, H., Lovejoy, N. R. 2023. Comparing Approaches to Specimen Identification using Neotropical Freshwater Fishes in the Barra del Colorado Wildlife Refuge, Costa Rica. bioRxiv, 2023.10. 02.560474

Taphorn D. C., Liverpool, E., Lujan, N. K., DoNascimiento, C., Hemraj, D. D., Crampton, W. F. R., Kolmann, M. A., **Fontenelle, J.P.**, de Souza, L. S., Werneke, D. C., Ram, M., Bloom, D. D., Sidlauskas, B. L., Holm, E., Lundberg, J. G., Sabaj, M. H., Bernard, C., Armbruster, J. W., López-Fernández, H. 2022. Annotated checklist of the primarily freshwater fishes of Guyana. Proceedings of the Academy of Natural Sciences of Philadelphia, 168 (1): 1-95

de Brito V., Betancur-R, R., Burns, M. D., Buser, T. J., Conway, K. W., **Fontenelle, J.P.**, Kolmann, M. A., McCraney, W. T., Thacker, C. E., Bloom, D. D. 2022. Patterns of phenotypic evolution associated with marine/freshwater transitions in fishes. Integrative and Comparative Biology, 62 (2): 406-423

Kolmann M. A., Marques, F. P. L., Weaver, J. C., Dean, M. N., **Fontenelle, J.P.**, Lovejoy, N. R. 2022. Ecological and phenotypic diversification after a continental invasion in Neotropical freshwater stingrays. Integrative and Comparative Biology, 62 (2): 424-440

Frable B. W., Melo, B. F., **Fontenelle, J.P.**, Oliveira, C., Sidlauskas, B. L. 2022. Biogeographic reconstruction of the migratory Neotropical fish family Prochilodontidae (Teleostei: Characiformes). Zoologica Scripta, 51 (3): 348-364

Fontenelle, J.P., Lovejoy, N. R., Kolmann, M., Marques, F. P. L. 2021. Molecular phylogeny for the Neotropical freshwater stingrays (Myliobatiformes: Potamotrygoninae) reveals limitations of traditional taxonomy. Biological Journal of the Linnean Society, 134 (2): 381-401

Albert J. S., Bernt, M. J., Fronk, A. H., **Fontenelle, J.P.**, Kuznar, S. L., Lovejoy, N. R. 2021. Late Neogene megariver captures and the Great Amazonian Biotic Interchange. Global and Planetary Change, 205, 103554

Fontenelle, J.P., Marques, F. P. L., Kolmann, M., Lovejoy, N. R. 2021. Biogeography of the neotropical freshwater stingrays (Myliobatiformes: Potamotrygoninae) reveals effects of continent□scale paleogeographic change and drainage evolution. Journal of Biogeography, 48 (6): 1406-1419

Fauser F. E., **Fontenelle, J.P.**, Elbassiouny, A. A., Mandrak, N. E., Lovejoy, N. R. 2019. Genetic Structure of Endangered Lake Chubsucker *Erimyzon sucetta* in Canada Reveals a Differentiated Population in a Precarious Habitat. Journal of Fish Biology, 95 (6): 1500-1505

Calegari B. B., **Fontenelle, J.P.**. 2017. Tutorial de preparação de mapas de distribuição geográfica: Parte II-Mapa Hipsométrico. Boletim da Sociedade Brasileira de Ictiologia, 124: 14-34

Fontenelle, J.P., Loboda, T. S., Kolmann, M., Carvalho, M. R. 2017. Angular cartilage variation and structure among Neotropical freshwater stingrays (Chondrichthyes: Myliobatiformes: Potamotrygonidae), with comments on function and evolution. Zoological Journal of the Linnean Society, 183 (1): 121-142

Fontenelle, J.P., Carvalho, M. R. 2017. Systematic revision of the *Potamotrygon scobina* Garman, 1913 species-complex (Chondrichthyes: Myliobatiformes: Potamotrygonidae), with the description of three new freshwater stingray species from Brazil and comments on their distribution and biogeography. Zootaxa, 4310 (1): 1-63

Fontenelle, J.P., Carvalho, M. R. 2016. Systematic implications of brain morphology in Potamotrygonidae (Chondrichthyes: Myliobatiformes). Journal of Morphology, 277 (2): 252-263

Fontenelle, J.P., Silva, J. P. C. B., Carvalho, M. R. 2014. *Potamotrygon limai*, sp. nov. a new species of freshwater stingray from the upper Madeira River system, Amazon basin (Chondrichthyes: Myliobatiformes: Potamotrygonidae). Zootaxa, 3765 (3): 249-268

Accepted for publication

Fontenelle, J. P., Underwood, J., Larroque, J., Legault, S., Wittische, J., James, P. A. 2024. Multi-year genotype characterization of eastern spruce budworm outbreaking populations from Quebec and adjacent regions. Ecology.

In Review

Charvet, P., **Fontenelle, J. P.**, Rincón, G., Rosa, R. S., de Araújo, M. L. G., Prang, G., Torres, Y. (all authors made an equal contribution to this chapter). River Jewels. IUCN Red List – IUCN SSC Shark Specialist Group.

In Prep

Fontenelle, J. P., Cullingham, C., James, P. A. Demographic and genetic variation in population outbreak cycles: influences on genetic inferences and their consequences. In preparation for Molecular Ecology.

Fontenelle, J. P., James, P. A. Sensitivity of landscape genomics outlier detection methods to demographic context and sampling quality in an outbreaking system. In preparation for Molecular Ecology.

Marques, F. P. L., **Fontenelle, J. P.**, Lovejoy, N. R. Phylogenomics and population structure of Paratrygon (Myliobatiformes: Potamotrygoninae) support morphology-based diversity hypothesis. In preparation for Systematic Biology.

Fontenelle, J. P., Crampton, W., Javier Maldonado-Ocampo, Lovejoy, N. R. Does water color matter? Diversity, phylogeography and population structure in the Neotropical electric fish genus Steatogenys (Gymnotiformes: Hypopomidae). In preparation for Molecular Phylogeny and Evolution

Fontenelle, J. P., Marques, F. P. L, Lujan, N. K., Lovejoy, N. R. Phylogenomics of the Neotropical freshwater stingrays reveal lineage introgression and diversification under gene-flow in Amazon basin rivers. In preparation for Systematic Biology.

Perez, T. J. M., **Fontenelle, J. P.**, Lovejoy, N. R. DNA Barcoding Reveals Cryptic Diversity and Presence of Invasive Species in a Conservation Area in Costa Rica. In preparation for Journal of Fish Biology.

Press/Outreach

The Defector - Where Did All These Freshwater Stingrays Come From? 2022. https://defector.com/where-did-all-these-freshwater-stingrays-come-from/

Journal of Biogeography - Featured Early Career Researcher (ERC). 2021. https://journalofbiogeographynews.org/2021/06/28/ecr-feature-joao-pedro-jp-fontanelle-on-stingrays-biogeography/

The New Scientist - Stingrays in the Amazon were stranded there by the Caribbean Sea. 2021. https://www.newscientist.com/article/2273362-stingrays-in-the-amazon-were-stranded-there-by-the-caribbean-sea/

Book Chapters

Fontenelle, J.P. et al., five book chapters as first author and six as middle author published in the book "XV. Rayas de Agua Dulce (Potamotrygonidae) de Suramérica. Parte II. Colombia, Brasil, Perú, Bolívia, Paraguay, Uruguay y Argentina. 1 ed., 2017" regarding the taxonomy, distribution and biology of Neotropical stingrays. These chapters were written in collaboration with Castello, H., Lasso, C. A., Loboda, T., Silva, J. P. C. B., Carvalho, M. R., Rosa, R. S., And Araujo, M. L. G.

Fontenelle, J.P et al., one book chapter as first author and ten as middle author published in the book " IX. Rayas de Agua Dulce (Potamotrygonidae) de Suramérica. Parte I. Colombia, Venezuela, Ecuador, Perú, Brasil, Guyana, Surinam y Guayana Francesa: diversidad, bioecología, uso y conservación. 1ed, 2014", regarding the taxonomy, distribution and biology of species belonging to the Neotropical stingrays group. These chapters were written in collaboration with Sanchez-Duarte, P., Lasso, C. A., Acosta-Santos, A., Morales-Betancourt, M. A., Agudelo-Cordoba, E., Bonilla-Castillo, C. A., Gomez-Hurtado, G. A., Guzman, A., Ortiz-Arroyave, L. M., Loboda, T., Rosa, R. S., Silva, J. P. C. B., Carvalho, M. R., Barriga, R., and Ortega, H.

Grants, Fellowships, & Awards

2023	**Post-Doctoral Fellowship in Genome Data Science**, Ontario Genomics / CANSSI-Ontario	*$ 100,000*
2015-2019	**International PhD Scholarship**, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico	*$ 100,000*
2012	**International Practicum Award**, Fundacao de Amparo a Pesquisa do Estado de Sao Paulo	*$ 10,000*
2011-2013	**Master in Science Scholarship**, Fundacao de Amparo a Pesquisa do Estado de Sao Paulo	*$ 20,000*
2010	**Undergraduate Research Scholarship**, Fundacao de Amparo a Pesquisa do Estado de Sao Paulo	*$ 7,000*

2021	**Top Cited Article Award - Journal of Biogeography**, Wiley	
2019	**Graduate Student Research Award**, University of Toronto Scarborough	*$ 1,000*
2019	**Edward C. Raney Fund Award**, American Society of Ichthyology and Herpetology	*$ 1000*
2017	**Best Student Paper Award**, Neotropical Ichthyology Association	
2017	**Best Student Oral Presentation (3rd place) Award**, II International Symposium on Phylogeny and Classification of Neotropical Fish	
2015, 2016, 2017	**T-Holder's Academic Excellence Award**, University of Toronto	

Presentations

Invited Talks and Lectures

2024. *Developing a Model Tool to Simulate Population Dynamics of Forest Outbreaking Pests to Support Conservations and Management Initiatives*. Invited talk for 2024 Ontario Genomics Snack and Learn. Toronto/ON, Canada.

2023. *Outbreaks and genetic stability: Temporal variation of genetic structure and diversity under cyclic irruptive population dynamics*. Invited talk for 2023 Spruce Budworm Science and Management Workshop. Montreal/QC, Canada.

2022-2023. *Peer Review - Extended Critique*. Guest lecture for Advanced Seminar in Forest Conservation (FOR400). University of Toronto. Canada.

2022. *The diversity of the Neotropical Freshwater Stingrays (Potamotrygoninae): Evolutionary perspectives and Aquarism*. Invited presentations for the San Francisco Aquarium Society and the Sacramento Aquarium Society. California/USA.

2021. *Polymorphic, cryptic or hybridizing species? The importance of phenotype in interpreting molecular patterns in a fast evolving, taxonomically complicated group of Neotropical stingrays.*. In: "Phenotype still matters in the genomic era" symposium. II Virtual Meeting of Systematics, Biogeography, and Evolution.

2020. *Biogeography and Evolution of the Neotropical Freshwater Stingrays: a Molecular Perspective.*. Universidade Estadual Paulista (UNESP). Brazil.

2019. *Conservation Genetics*. Guest lecture for Applied Conservation Biology (D54). University of Toronto Scarborough. Canada.

2018. *Evolution and Development*. Guest lecture for Evolutionary Biology (B51). University of Toronto Scarborough. Canada.

2018. *Developmental genes and Evolution*. Guest lecture for Evolutionary Biology (B51). University of Toronto Scarborough. Canada.

2013. *Accidents with sharks and rays*. Universidade Metodista de São Paulo. Brazil.

2012-2014. *Biology of Venomous Fishes*. Instituto Butantan. Brazil.

Contributed Presentations

** presenting author; $^{+}$ mentored student*

Fontenelle, J. P.*, Cullingham, C., James, P. 2024. How do population outbreak cycles affect population genetic inferences?. In: 3rd Joint Congress of Evolutionary Biology - Evolution 2024. Montreal, QC. Canada.

Fontenelle, J. P.*, James, P. 2024. Variability in the sensitivity of outlier detection methods in outbreaking systems: a spruce budworm case study. In: 3rd Joint Congress of Evolutionary Biology - Evolution 2024. Montreal, QC. Canada.

Underwood, J. A. R.*$^{+}$, **Fontenelle, J. P.**, James, P. 2024. Genetic Consequences of Outbreak in Forest Lepidoptera: Temporal Variation in Effective Population Size (*Ne*). In: 3rd Joint Congress of Evolutionary Biology - Evolution 2024. Montreal, QC. Canada.

Brittain, K.*, **Fontenelle, J. P.**, Johns, R., Roe, A. D., Edwards S., Legault, S., James, P. 2024. Leveraging Citizen Science to Answer Questions of Population Genetic Inference in Cyclic Populations. In: 3rd Joint Congress of Evolutionary Biology - Evolution 2024. Montreal, QC. Canada.

Fontenelle, J. P.*, Cullingham, C., James, P. 2024. Demographic and genetic variation in population outbreak cycles: influences on genetic inferences and their consequences. In: 2024 Annual Meeting of the Canadian Society of Ecology and Evolution (CSEE). Vancouver, BC. Canada.

Fontenelle, J. P.*, Cullingham, C., James, P. 2024. How do population outbreak cycles affect population genetic inferences?. In: 2024 CANSSI Research Day. Toronto, ON. Canada.

Nascimento, J. G.*+, **Fontenelle, J. P.**, Akama, A. 2024. Análise da Estruturação Populacional de Peixes Reofílicos da Bacia Tocantins-Araguaia. In: I Seminário Integrado dos Programas de Pós-Graduação do Museu Goeldi (I SIPPG): "Mudanças na Amazônia: Desafios e Perspectivas". Belém/PA, Brazil.

Quaresma, T.*+, **Fontenelle, J. P.**, Akama, A. 2024. Genômica comparativa de espécies reofílicas: Integrando aspectos filogenéticos para elucidar a história geomorfológica. In: I Seminário Integrado dos Programas de Pós-Graduação do Museu Goeldi (I SIPPG): "Mudanças na Amazônia: Desafios e Perspectivas". Belém/PA, Brazil.

Fontenelle, J. P.*, James, P. 2022. Sensitivity of Outlier Loci Detection Methods to Population Range Expansions: Investigating the Effects of Population Size, Dispersal, and Timing of Sampling. In: 2022 Annual Meeting of the Ecological Society of America and the Canadian Society of Ecology and Evolution. Montreal, QC. Canada.

de Brito, V.*, Betancur-R, R., Burns, M. D., Buser, T. J., Conway, K., **Fontenelle, J. P.**, Kolmann, M. A., McCraney, W. T., Thacker, J. P., Bloom, D.D. 2022. Species Interactions and Niche Conservatism Limit Phenotypic Diversification Following Marine/Freshwater Transitions in Fishes. In: 2022 Society of Integrative and Comparative Biology Conference. Phoenix, AZ. USA.

Fontenelle, J. P.*, Marques, F. L. P., Lujan, N., Lovejoy, N. R. 2021. Evolution And Diversity In The Neotropical Freshwater Stingrays: A Phylogenomic Perspective. In: 2021 Joint Meeting of Ichthyology and Herpetology. Phoenix, AZ. USA.

Perez, T. P.*+, **Fontenelle, J. P.**, Angulo, A., Lovejoy, N. R. 2021. Integrative Taxonomy As A Tool for Conservation: Exploring Freshwater Fish Diversity of the Barra del Colorado Wildlife Refuge, Costa Rica. In: 2021 Joint Meeting of Ichthyology and Herpetology. Phoenix, AZ. USA.

de Brito, V.*, Betancur-R, R., Burns, M. D., Buser, T. J., Conway, K., **Fontenelle, J. P.**, Kolmann, M. A., McCraney, W. T., Thacker, J. P., Bloom, D.D. 2021. (A Lack of) Patterns of Phenotypic Evolution Associated with Marine/Freshwater Transitions in Fishes. In: 2021 Joint Meeting of Ichthyology and Herpetology. Phoenix, AZ. USA.

Fontenelle, J. P.*, Kolmann, M., Marques, F. L. P.,Lovejoy, N. R. 2019. Matryoshka fishes? Assessing South American continental-scale biogeography using the widespread Neotropical freshwater stingrays (Myliobatiformes: Potamotrygoninae). In: 2019 Joint Meeting of Ichthyology and Herpetology. Snowbird, UT. USA.

Fontenelle, J. P.*, Kolmann, M., Marques, F. L. P.,Lovejoy, N. R. 2019. Another Kettle of Fish: Molecular Phylogeny of the Neotropical Freshwater Stingrays Reveals Recent Diversification and Geographically Determined Lineages. In: Evolution 2019. Providence, RI. USA

Soares, B. E.*, **Fontenelle, J. P.** 2019. A diversidade e evolução do tamanho corporal nos peixes elétricos neotropicais (Ostariophysi: Gymnotiformes). In: Encontro Brasileiro de Ictiologia. 2019. Belém, Brazil.

Fontenelle, J. P.*, Crampton, W., Lovejoy, N. R. 2018. Master of one or none? Phylogeny and population structure in the Neotropical electric fish genus Steatogenys (Gymnotiformes: Hypopomidae) across different water types. In: 2018 Joint Meeting of Ichthyology and Herpetology. Rochester, NY. USA.

Fontenelle, J. P.*, Crampton, W., Lovejoy, N. R. 2017. Does water colour matter? Phylogeny and phylogeography of the genus Steatogenys (Boulenger, 1898) (Gymnotiformes: Hypopomidae). In: II International Symposium on Phylogeny and Classification of Neotropical Fishes, 2017, Londrina/PR, Brazil.

Fontenelle, J. P.*, Marques, F. L. P., Kolmann, M, Lovejoy, N. R. 2017. Molecular phylogeny of the Neotropical freshwater stingrays (Chondrichthyes: Myliobatiformes: Potamotrygonidae), with biogeographical inferences. In: II International Symposium on Phylogeny and Classification of Neotropical Fishes, 2017, Londrina/PR, Brazil.

Fontenelle, J. P.*, Marques, F. L. P., Kolmann, M, Lovejoy, N. R. 2017. Molecular phylogeny of the Neotropical freshwater stingrays (Chondrichthyes: Myliobatiformes: Potamotrygonidae), with biogeographical inferences. In: 2017 Joint Meeting of Ichthyology and Herpetology. Austin, TX.

Fontenelle, J. P.*, Crampton, W., Lovejoy, N. R. 2016. Does water colour matter? Phylogeny and phylogeography of the genus Steatogenys (Boulenger, 1898) (Gymnotiformes: Hypopomidae). 2016. Ontario Ecology, Ethology and Evolution Colloquium. Toronto, ON. Canada

Fontenelle, J. P.*, Crampton, W., Lovejoy, N. R. 2016. Does water colour matter? Phylogeny and phylogeography of the genus Steatogenys (Boulenger, 1898) (Gymnotiformes: Hypopomidae). In: 2016 Joint Meeting of Ichthyology and Herpetology. New Orleans, LA.

Fontenelle, J. P.*, Carvalho, M. R. 2015. Brain Morphology in the Family Potamotrygonidae, with Observations on the Evolution of the Brain in the Order Myliobatiformes. In: 2015 Joint Meeting of Ichthyology and Herpetology. Reno, NV.

Fontenelle, J. P.*, Loboda, T., Carvalho, M. R. 2014. Angular cartilage variation and structure among Neotropical freshwater stingrays (Chondrichthyes: Myliobatiformes: Potamotrygonidae). In: 2014 Joint Meeting of Ichthyology and Herpetology. Chattanooga, TN.

Fontenelle, J. P.*, Carvalho, M. R. 2014. Morphological variation and distribution of the *Potamotrygon scobina* species complex in the Amazon basin (Chondrichthyes: Potamotrygonidae). In: 2014 Joint Meeting of Ichthyology and Herpetology. Chattanooga, TN.

Carvalho, M. R.*, Soares, M., Laurini, C., Silva, J. P. C. B., Vaz, D., Figueiredo, S., Loboda, T., **Fontenelle, J. P.**, Ragno, M., Petean, F., Shibuya, A., Yokota, L., Carvalho, M., Soares, W., Casas, A., Moreira, R., Gomes, U. 2013. Morphology and shark non-monophyly, or Why Homology Still Matters in Systematics. In: ASIH Fishes and Morphology Symposium I, 2013, Albuquerque/NM.

Carvalho, M. R.*, Soares, M. C., Laurini, C. R., Silva, J. P. C. B., Vaz, D. B., Viana, S. T. F., Loboda, T., **Fontenelle, J. P.**, Ragno, M. P., Petean, F. F., Shibuya, A., Yokota, L., Carvalho, M., Minelli, J. B., Soares, W., Casas, A., Moreira, R., Gomes, U. L. 2013. Phylogenetic relationships among major groups of living elasmobranchs: a morphological perspective. In: 9th Indo-Pacific Fish Conference, 2013, Okinawa.

Carvalho, M. R.*, Silva, J. P. C. B., Loboda, T., **Fontenelle, J. P.**, Ragno, M. P., Soares, M. C., Laurini, C. R., Shibuya, A., Araujo, M. L. G., Marques, F. P. L. . 2013. Systematics and evolution of the highly diverse and morphologically complex Neotropical freshwater stingrays (Chondrichthyes: Potamotrygonidae). 9th Indo-Pacific Fish Conference, 2013, Okinawa.

Teaching Experience

2024	**Introduction to Population Genomics for Ecology and Evolution**, Lecturer	*Museu Paraense Emilio Goeldi*
2018	**Applied Conservation Biology**, Teaching Assistant	*University of Toronto Scarborough*
2016, 2018	**Community Ecology**, Teaching Assistant	*University of Toronto Scarborough*
2017, 2019	**Tropical Biodiversity**, Teaching Assistant	*University of Toronto Scarborough*
2016, 2020	**Special Topics in Biodiversity and Systematics**, Teaching Assistant	*University of Toronto Scarborough*
2016-2021	**Evolutionary Biology**, Teaching Assistant	*University of Toronto Scarborough*
2015-2021	**Ecology and Evolutionary Biology Laboratory**, Teaching Assistant	*University of Toronto Scarborough*
2008, 2009, 2012	**Vertebrate Zoology**, Teaching Assistant	*Universidade de Sao Paulo*

Student Supervision and Mentoring

Doctorate Students

2022 - Current	**Tania Quaresma**, Doctor of Phylosophy, Museu Paraense Emilio Goeldi	*Brazil*

Masters Students

2024 - Current	**Jessica Underwood**, Master in Science, University of Toronto	*Canada*
2022-2024	**Julia Carvalho Nascimento**, Master in Science, Museu Paraense Emilio Goeldi	*Brazil*

Undergraduate Students

2023-2024	**Jessica Underwood**, Undergraduate Research, University of Toronto	*Canada*
2017-2019	**Taegan Perez**, Undergraduate Research, University of Toronto Scarborough	*Canada*
2017-2019	**Shalini Bahl**, Undergraduate Research, University of Toronto Scarborough	*Canada*

Outreach & Professional Development

Service and Outreach

2017 - 2020	**UTSC Biology Undergraduate Integrative Research Poster Day**, Volunteer Judge
2018-2023	**UTSC Scinapse Competition**, Volunteer Judge
2015-2018	**Kinesiology & Physical Education Research**, Research Volunteer

Development

Conservation Genomics. 2022. Use and development of analytical tools, methods, pipelines and datasets for the use of genomic information for conservation biology

Peer Review

- Biological Journal of the Linnean Society
- Journal of Fish Biology
- Molecular Genetics and Genomics
- Molecular Phylogenetics and Evolution
- Neotropical Ichthyology
- PeerJ
- PlosOne
- Zoologischer Anzeiger
- Brazilian Journal of Veterinary Parasitology
- Molecular Biology Reports

Professional Memberships

- Society for the Study of Evolution (SSE)
- Canadian Society of Ecology and Evolution (CSEE)
- American Society of Ichthyology and Herpetology (ASIH)
- Sociedade Brasileira de Ictiologia (SBI)
- Neotropical Ichthyology Association (NIA)