

Pedro Henrique P. Braga

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languages

excellent written and
oral proficiency:
English, French,
Portuguese; studied:
Japanese, German

skillset

truetrue

defining attributes

cooperative skills,
proactive and
resourceful team
participation,
adaptive management
and organisational
skills, public speaking
and
communication,
cheerful 🌻

Interests

As an **evolutionary ecologist** and a **biogeographer**, I am interested in using information on the **evolutionary history of species** and their **ecological attributes** to understand how **processes and mechanisms** that generate **biodiversity patterns**. In my research, I stress the **importance of phylogenetic and spatial scales and historical components of ecological and evolutionary drivers**. I practice and promote **open and reproducible science**. I am also dedicated towards the integration of evidence-based **active learning strategies** in my **teaching and scientific communication** abilities.

Education

Ph.D. Candidate in Biology, 2016 to Current

Concordia University, Montréal, CA

Thesis: *Spatial and phylogenetic scale-dependence in the evolutionary and ecological determinants of diversity patterns in bats*

Supervisors: Pedro **Peres-Neto** & Steven **Kembel**

Ph.D. Student in Biology, 2014 to 2016 - Transfer

Université du Québec à Montréal, Montréal, CA

Thesis: *Spatial and phylogenetic scale-dependence in the evolutionary and ecological determinants of diversity patterns in bats*

Supervisors: Pedro **Peres-Neto** & Steven **Kembel**

M.Sc. in Ecology and Evolution, 2012 to 2014

Federal University of Goiás, Goiânia, BR

Thesis: *Niche evolution and diversification patterns in Neotropical anurans*

Supervisors: Natan Medeiros **Maciel** & Paulo **De Marco**

B.Sc. in Biological Sciences, 2008 to 2012

Federal University of Goiás, Goiânia, BR

Honours Thesis: *Adaptive climatic niche evolution in bufonid frogs*

Supervisors: Natan Medeiros **Maciel** & Paulo **De Marco**

Teaching Experience

Winter 2021

Workshop Instructor

Generalized Linear Models in R

Remote

Fall 2020

Workshop Instructor

Introduction to Programming in R

Remote

Winter-Fall
2019

Pedagogical Formation

Supporting Active Learning and Technological
Innovation in Studies of Education (SALTISE)

Dawson College
Concordia University

Winter 2019

Workshop Instructor

Advanced Multivariate Analyses

Concordia University

Fall 2018	Teaching Assistant Biostatistics (BIOL322)	Concordia University
Fall 2018	Workshop Instructor QCBS R Workshop Series ggplot & plyr Programming in R	Concordia University
Summer 2018	Teaching Assistant Fundamentals of Nutrition (BIOL203)	Concordia University
Winter 2018	Teaching Assistant (Remote Setting) Fundamentals of Nutrition (eBIOL203)	Concordia University
Winter 2018	Workshop Instructor QCBS R Workshop Series Generalized Linear Mixed Models Multivariate Analyses	Concordia University McGill University
Fall 2017	Workshop Instructor QCBS R Workshop Series Introduction to ggplot2 & dplyr Linear Models in R	Concordia University McGill University
Winter 2017	Workshop Instructor QCBS R Workshop Series Generalized Linear Mixed Models Multivariate Analyses	McGill University
Fall 2016	Teaching Assistant Séminaire en écologie et analyses des données (BIO3500)	Université du Québec à Montréal
Fall 2016	Workshop Instructor QCBS R Workshop Series Introduction to R Charger et manipuler des données en R Loading and manipulating data in R Introduction to ggplot Linear models Programming in R	McGill University
Winter 2016	Workshop Instructor QCBS R Workshop Series Linear mixed models Advanced multivariate analyses Programming in R	McGill University
Winter 2013	Teaching Assistant Biostatistics	Federal University of Goiás

Awards, Grants and Scholarships

2020	Bursary: Natural Sciences and Engineering Research Council (NSERC) Discovery Grant	CAD 5,000
2020	Bursary: Natural Sciences and Engineering Research Council (NSERC) Discovery Grant	CAD 5,000
2019	Award: Excellence Award from the Québec Centre for Biodiversity Science (QCBS)	CAD 1,279

2014-2018	Scholarship: Science without Borders Ph.D. Scholarship from the National Council of Research and Development (CNPq) (249289/2013-0)	CAD 180,000
2018	Award: Learning and Development Award (LeaDA) from the Québec Centre for Biodiversity Science (QCBS)	CAD 1,825
2018	Award: Excellence Award from the Québec Centre for Biodiversity Science (QCBS)	CAD 1,140
2017	Award: Learning and Development Award (LeaDA) from the Québec Centre for Biodiversity Science (QCBS)	CAD 250
2017	Award: Learning and Development Award (LeaDA) from the Québec Centre for Biodiversity Science (QCBS)	CAD 963
2015	Award: Non-tuition fees funding for the Intensive Course in Biodiversity Science from the Québec Centre for Biodiversity Science (QCBS)	CAD 1380
2015	Grant: Deutscher Akademischer Austauschdienst (DAAD) travel grant for the 2015 iDiv Summer School on Biodiversity Synthesis	EUR 1,450
2012-2014	Scholarship: M.Sc. Scholarship from the Coordination for the Improvement of Higher Education Personnel (CAPES)	BRL 28,800
2011-2012	Scholarship: National Council of Research and Development (CNPq) Undergraduate Research Scholarship	BRL 3,000

Professional Activities

2017-Current	Coordinator for the QCBS R Workshop Series Québec Centre for Biodiversity Science	Montréal, Canada
2018	Event planner and coordinator 3rd Québec Centre for Biodiversity Science R Symposium	Montréal, Canada
2017	Event planner and coordinator 2nd Québec Centre for Biodiversity Science R Symposium	Montréal, Canada
2017	Event committee member for the eco-responsible certification Québec Centre for Biodiversity Science Symposium	Montréal, Canada
2016	Event committee member for the eco-responsible certification Québec Centre for Biodiversity Science Symposium	Montréal, Canada
2015	Event planner and organizer Organization of the QCBS Research Derby	Mont-Saint-Hilaire, Canada

2013-2014	Statistical Consultant Biostatistical consulting on research projects varying from clinical study designs to ecological research	Remote
2011-2012	Environmental Fieldwork Assessment (Chiroptera and Anura) and Statistical Consultant Environmental Assessment for Cosan Limited S.A. Sugar Cane Industries	Montividiu and Paraúna, Brazil
2011-2012	Research Technician Biodiversity monitoring of the areas that are directly influenced by Anglo American Brazil's activities as part of the agreement with the Federal University of Goiás	Barro Alto and Niquelândia, Brazil
2011-2012	Conference organizer XXII Conference for the Institute of Biological Sciences from the Federal University of Goiás	Goiânia, Brazil

Memberships

2016-Current	International Biogeography Society, Student Member
2015-2019	Québec Centre for Biodiversity Science, Student Representative
2017-2017	Ecology Society of America, Student Member
2011-2012	Brazilian Herpetology Society, Student Member

Reviewer

2021	Marine Biology, Zoology
2019	Diversity and Distributions

Contributed Presentations

Soc. for Open, Reliable, and Transparent Ecology and Evolution	Hackathon
Crystal-Ornelas, R., Hudgins, E., Edwards, B., Braga, Pedro Henrique P. , Hébert, K., Martinez, C., Sánchez-Reyes, L. L., Promoting the use of Github in Ecology and Evolution. <i>Soc. for Open, Reliable, and Transparent Ecology and Evolution</i> . (2021). Worldwide.	
2019 Québec Centre for Biodiversity Science Symposium	Oral Presentation
Braga, Pedro Henrique P. , Kembel, S., Peres-Neto, P., Historical contingencies, scale-dependence and contemporary- and past-climate determine the evolutionary global reassembly of bat communities. <i>2019 Québec Centre for Biodiversity Science Symposium</i> . (2019). Montréal, Canada.	
9th Biennial Conference for the International Biogeography Society	Oral Presentation
Braga, Pedro Henrique P. , Kembel, S., Peres-Neto, P., Historical contingencies, scale-dependence and contemporary- and past-environmental variation deter-	

mine the phylogenetic structure of bat assemblages across the globe. *9th Biennial Conference for the International Biogeography Society*. (2019). Málaga, Spain.

9th Biennial Conference for the International Biogeography Society

Oral Presentation

Donelle, L., **Braga, Pedro Henrique P.**, Vázquez-Rivera, H., Mestre, A., Arranz, I., Peres-Neto, P., Fournier, B., The frequency of environmental conditions mediates the coexistence of generalist and specialist species - a theoretical model and test on terrestrial vertebrates. *9th Biennial Conference for the International Biogeography Society*. (2019). Málaga, Spain.

Climate Change Meeting for the International Biogeography Society

Oral Presentation

Braga, Pedro Henrique P., Predicting how climate driven species range shifts are affected by international borders: is it just another brick in the wall?. *Climate Change Meeting for the International Biogeography Society*. (2018). Évora, Portugal.

Climate Change Meeting for the International Biogeography Society

Oral Presentation

Fournier, B., Vázquez-Rivera, H., Clappe, S., Donelle, L., **Braga, Pedro Henrique P.**, Peres-Neto, P., The spatial frequency of global climatic conditions drives the functional composition of Angiosperm communities. *Climate Change Meeting for the International Biogeography Society*. (2018). Évora, Portugal.

8th Biennial Conference for the International Biogeography Society

Oral Presentation

Braga, Pedro Henrique P., Kembel, S., Peres-Neto, P., Niche evolution patterns across spatial scales in bats. *8th Biennial Conference for the International Biogeography Society*. (2017). Tucson, USA.

49th Meeting of the Association for Tropical Biology and Conservation

Oral Presentation

Peixoto, F.P., **Braga, Pedro Henrique P.**, Brito, D., Diniz-Filho, J.A.F., Global patterns of phylogenetic turnover in bats. *49th Meeting of the Association for Tropical Biology and Conservation*. (2012). Bonito, Brazil.

I International Symposium of Ecology

Oral Presentation

Alves, D.M.C.C., Peixoto, F.P., **Braga, Pedro Henrique P.**, Brito, D., Bats susceptible to an invasive disease: a macroecological approach. *I International Symposium of Ecology*. (2011). São Carlos, Brazil.

IX Latin-American Congress of Herpetology

Oral Presentation

Braga, Pedro Henrique P., De Marco Junior, P., Maciel, N.M., Conservation of the ecological niche of the species of the *Rhinella marina* group (Anura: Bufonidae). *IX Latin-American Congress of Herpetology*. (2011). Curitiba, Brazil.

Outreach

2019 3MT Competition Finalist at Concordia University

Oral Presentation

Braga, Pedro Henrique P., Is it another brick in the wall?. *2019 3MT Competition Finalist at Concordia University*. (2019). Montréal, Canada.

2019 Creative Reactions | Réactions Creatives

Interdisciplinary Art Exhibition

Winkler, R. and **Braga, Pedro Henrique P.**, Scientist-artist pairing to develop and exhibit a project performed on the theme "Uncovering diversity patterns of bats"

across the globe*". 2019 Creative Reactions | Réactions Creatives. (2019). Montréal, Canada.

Environmental Science Talk Sessions at Dawson College

Oral Presentation

Braga, Pedro Henrique P., Effects of Climate Change on Natural Systems. *Environmental Science Talk Sessions at Dawson College*. (2019). Westmount, Canada.

2018 Pint of Science

Oral Presentation

Braga, Pedro Henrique P., Uncovering diversity patterns of bats across the globe. *2018 Pint of Science*. (2018). Montréal, Canada.

Peer-reviewed Publications

10 Fournier, B., Vázquez-Rivera, H., Clappe, S., Donelle, L., Braga, Pedro Henrique P., & Peres-Neto, P. R. (2020). The spatial frequency of climatic conditions affects niche composition and functional diversity of species assemblages: The case of angiosperms. *Ecology Letters*, 23(2), 254–264. <http://doi.org/https://doi.org/10.1111/ele.13425>

Peixoto, F. P., Braga, Pedro Henrique P., & Mendes, P. (2018). A synthesis of ecological and evolutionary determinants of bat diversity across spatial scales. *BMC Ecology*, 18(1), 18. <http://doi.org/10.1186/s12898-018-0174-z>

Peixoto, F. P., Braga, Pedro Henrique P., Cianciaruso, M. V., Diniz-Filho, J. A. F., & Brito, D. (2014). Global patterns of phylogenetic beta diversity components in bats. *Journal of Biogeography*, 41(4), 762–772. <http://doi.org/10.1111/jbi.12241>

Batista, V. G., Gambale, P., Oda, F. H., & Braga, Pedro Henrique P. (2013). *Dendropsophus rubicundulus* (Lagoa Santa Treefrog). predation. *Herpetological Review*, 45(1), 111.

Maciel, N. M., Carvalho Kokubum, M. N. de, Braga, Pedro Henrique P., Queiróz-Júnior, A. T. de, & Matsushita, R. H. (2013). Distribution extension, new state record and geographic distribution map of *Ceratophrys joazeirensis* Mercadal, 1986 (Anura: Ceratophryidae). *Herpetology Notes*, 6, 447–450.