## Pedro Henrique P. Braga

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# contact Office SP 301.11, Department of Biology, Concordia University

## **website** pedrohbraga.github.io

## **twitter** pedrohp\_braga

#### github

pedrohbraga

#### orcid

0000-0002-1308-1562

#### languages

English, French, Portuguese - fluent written & oral skills

#### programming

dev: R use: R, Matlab, SQL, markdown, LaTeX, Julia

#### defining attributes

articulate, interpersonal and cooperative skills, proactive leadership, adaptive management and organisational skills, public speaking and communication skills, cheerful

#### hobbies

running, cycling, hiking, crafting and cooking

#### **Interests**

As an evolutionary ecologist, I am interested in using information on the evolutionary history of species and their ecological attributes to understand general 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

#### **Education**

**Ph.D. Student in Biology,** 2014 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

**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

Supporting Active Learning and Technological

Honours Thesis: Adaptive climatic niche evolution in bufonid frogs

**Pedagogical Formation** 

Generalized Linear Mixed Models

Multivariate Analyses

Supervisors: Natan Medeiros Maciel & Paulo De Marco

#### **Teaching Experience**

2019

	Innovation in Studies of Education (SALTISE)	,
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	<b>Teaching Assistant</b> Fundamentals of Nutrition (BIOL203)	Concordia University
Winter 2018	<b>Teaching Assistant</b> Fundamentals of Nutrition (eBIOL203)	Concordia University
Winter 2018	Workshop Instructor QCBS R Workshop Series	Concordia University McGill University

Dawson College

Concordia 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	<b>Teaching Assistant</b> Séminaire en écologie et analyse 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	<b>Teaching Assistant</b> Biostatistics	Federal University of Goiás

### **Awards, Grants and Scholarships**

2019	<b>Award</b> : Excellence Award from the Québec Centre for Biodiversity Science (QCBS)	CAD 1,279
2014-2018	<b>Scholarship</b> : Science without Borders Ph.D. Scholarship from the National Council of Research and Development (CNPq) (249289/2013-0)	CAD 140,000
2018	Award: Learning and Development Award (LeaDA) from the Québec Centre for Biodiversity Science (QCBS)	CAD 1,825
2018	<b>Award</b> : 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	<b>Award:</b> Non-tuition fees funding for the Intensive Course in Biodiversity Science from the Québec Centre for Biodiversity Science (QCBS)	CAD 1380

2015	<b>Grant:</b> Deutscher Akademischer Austauschdienst (DAAD) travel grant for the 2015 iDiv Summer School on Biodiversity Synthesis	EUR 1,450
2012-2014	<b>Scholarship</b> : M.Sc. Scholarship from the Coordination for the Improvement of Higher Education Personnel (CAPES)	BRL 28,800
2011-2012	<b>Scholarship</b> : National Council of Research and Development (CNPq) Undergraduate Research Scholarship	BRL 3,000

#### **Professional Activities**

2017-Current	Coordinator of the QCBS R Workshop Series	Montréal, Canada
	Québec Centre for Biodiversity Science	

#### **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

#### **Contributed Presentations**

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

9th Biennal 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 Biennal 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 Biennal 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 Biennal 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.

#### 2018 Pint of Science at Montréal

**Oral Presentation** 

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

#### **Peer-reviewed Publications**

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/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.