

Renata Beco, Msc.

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renatabeco9@gmail.com

Education

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| 2022 – present | PhD Candidate
University of Tennessee, Department of Ecology and Evolutionary Biology,
Knoxville, TN
Advisor: Dr. Elizabeth Derryberry |
| 2016 – 2018 | MSc. Biological Sciences (Zoology).
Universidade de São Paulo, São Paulo, Brazil
Thesis Title: Evolution of acoustic and visual signals in the antwrens of the Tribe
Formicivorini (Aves, Thamnophilidae).
Advisor: Dr. Luís Fábio Silveira. Co-advisor: Dr. Gustavo A. Bravo |
| 2011 - 2015 | BSc. Biological Sciences.
Universidade de São Paulo, São Paulo, Brazil |

Research and Academic Appointments

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| 2025 – present | Bird Banding Volunteer
Seven Islands State Birding Park, Kodak, TN |
| 2021 – 2022 | Research Assistant
Universidade Estadual do Maranhão, Centro de Estudos Superiores de Caxias Brazil |
| 2014 – 2016 | Curational and Molecular Lab Assistant
Universidade de São Paulo, Museu de Zoologia, Brazil |

Publications

1. **Beco, R.**, Macedo, G., Bravo, G. A., Johnson, O., Luo, A. R., Brumfield, R. T. and E. P. Derryberry. Habitat, Morphology, and Syntopy Shape Song Evolution in Female Suboscine Birds (Aves, Thamnophilidae). *Submitted at Ornithology*.
2. Valtuille T., Ubaid F.K., **Beco R.**, R.A. Brandão (2024) Diet of the vulnerable White-browed Guan Penelope jacucaca (Galliformes, Cracidae) in two contrasting Caatinga fragments in Northeastern Brazil. *Ethology Ecology & Evolution*, 36(3), 245–261.
<https://doi.org/10.1080/03949370.2023.2263410>
3. Glaser, T., Martins, P., **Beco, R.**, Bento, C. A., Cappellari, A. R., La Banca Oliveira, S., ... and H. Ulrich. (2024). Impairment of adenosine signaling disrupts early embryo development: unveiling the underlying mechanisms. *Frontiers in Pharmacology*, 14, 1328398.
4. Santos, C. S. L., C. Licarião, W. Girão, **Beco R.**, and F. K. Ubaid. (2022). First description of the nest and eggs of Ceará Leaf-tosser *Sclerurus cearensis*, with a review of the breeding biology of genus *Sclerurus*. *Bulletin of the British Ornithologists' Club*, 142(2), 155-163.
5. Ubaid, F. K., and **R. Beco**. (2022). Interspecific foraging association between the cryptic forest-falcon, *Micrastur mintoni* and primates in an Amazon rainforest in Brazil. *Acta Amazonica*, 52, 49-52.

6. **Beco R.**, L. F. Silveira, E. P. Derryberry and G. A. Bravo. (2021). Ecology and behavior predict an evolutionary trade-off between song complexity and elaborate plumages in antwrens (Aves, *Thamnophilidae*). *Evolution*. doi: 10.1111/evo.14325
7. Fecchio, A., M. R. Lima, J. A. Bell, F. Schunck, A. H. Corrêa, **R. Beco**, A. E. Jahn, C. S. Fontana, T. W. da Silva, M. Repenning, É. M. Braga, J. E. Garcia, C. Lugarini, J. C. R. Silva, L. H. M. Andrade, J. H. Dispoto, C. C. dos Anjos, J. D. Weckstein, K. Kirchgatter, V. A. Ellis, R. E. Ricklefs, and G. M. De La Torre. (2021). Loss of forest cover and host functional diversity increases prevalence of avian malaria parasites in the Atlantic Forest. *International Journal for Parasitology*.
8. Bravo, G. A., B. M. Whitney, R. Belmonte-lobes, M. R. Bornschein, N. Aristizábal, **R. Beco**, J. Battilana, L. N. Naka, A. Aleixo, M. R. Pie, L. F. Silveira, E. P. Derryberry, and R. T. Brumfield. (2021). Phylogenomic analyses reveal non-monophyly of the antbird genera *Herpsilochmus* and *Sakesphorus* (*Thamnophilidae*), with description of a new genus for *Herpsilochmus sellowi*. *Ornithology*, 138, 1-16.
9. Glaser, T., S. L. B. De Oliveira, A. Cheffer, **R. Beco**, P. Martins, M. Fornazari, C. Lameu, H. M. Costa Junior, R. Coutinho-Silva, and H. Ulrich (2014). Modulation of mouse embryonic stem cell proliferation and neural differentiation by the P2X7 receptor. *PLoS ONE* 9:96281. doi: 10.1371/journal.pone.0096281

Research Grants and Fellowships

2025	EEB Graduate Research Award 2025 EEB department at the University of Tennessee
2024	Riechert Graduate Student Award 2024 Dr. Susan Riechert, retired faculty member from the EEB department at the University of Tennessee
2024	EEB Graduate Research Award 2024 EEB department at the University of Tennessee
2024	AOS Research Awards 2024 American Ornithological Society
2017	Collection Study Grant American Museum of Natural History
2017	Research Internship Scholarship São Paulo Research Foundation (FAPESP), Grant 17/16938-9
2016 – 2018	Graduate Fellowship National Council of Technological and Scientific Development (CNPq), Grant 133901/2016-5 São Paulo Research Foundation (FAPESP), Grant 16/08814-5
2012-2014	Undergraduate Fellowship São Paulo Research Foundation (FAPESP), Grant 12/05333-5

Presentations at Professional Meetings

R. Beco, G. Macedo, and E. P. Derryberry. Female ornamentation and territorial defense: Insights from a socially monogamous suboscine bird (*Myrmoderus loricatus*). In: Inaugural Southeastern Conference for Animal Behavior, 2025, Knoxville, TN, USA.

R. Beco, G. Macedo, G. A. Bravo, O. Johnson, A. R. Luo, and E. P. Derryberry. Habitat and morphology shape song evolution in female suboscine birds. In: Symposium Focus on females at the AOS Annual Meeting, 2024, Estes Park, CO, USA.

R. Beco, G. Macedo, G. A. Bravo, E. P. Derryberry. Female song evolution in a highly social clade of suboscine birds (Aves, Thamnophilidae). In: II Ornithological Congress of the Americas, 2023, Gramado, Brazil. II Ornithological Congress of the Americas, 2023.

R. Beco, L. F. Silveira, E. P. Derryberry, G. A. Bravo. Ecology and behavior predict an evolutionary trade-off between song complexity and elaborate plumages in antwrens. In: Animal Behavior Conference, 2023, Bloomington, IN, USA.

R. Beco, L. F. Silveira, E. P. Derryberry, G. A. Bravo. Ecology and behavior predict an evolutionary trade-off between song complexity and elaborate plumages in antwrens (Aves, Thamnophilidae). In: Virtual Evolution, 2021, Virtual.

R. Beco, L. F. Silveira, G. A. Bravo. Evolution of visual signals in the antwrens of the tribe Formicivorini (Aves, Thamnophilidae). In: I Ornithological Congress of the Americas, 2017, Puerto Iguazú, Argentina. I Ornithological Congress of the Americas, 2017.

Beco R, Glaser T, Ulrich H. Adenosine Receptors in Embryonic Stem Cell Biology. In: IV Meeting of the Brazilian Purine Club 'Perspectives of Purinergic Signaling: From Structures to Functions and Translational Research', 2013, Canela, Brazil. IV Meeting of the Brazilian Purine Club "Perspectives of Purinergic Signaling: From Structures to Functions and Translational Research", 2013.

Beco RP, Glaser T, Ulrich H. Evaluation of P1 purinergic receptors actions in the maintenance of pluripotency and proliferation in embryonic stem cells. In: III Meeting of the Brazilian Purine Club 'Purinergic Signaling: Structure, Functions and Therapeutic Applications', 2012, Ouro Preto, Brazil. III Meeting of the Brazilian Purine Club "Purinergic Signaling: Structure, Functions and Therapeutic Applications", 2012.

Service for Professional Journals

Reviewer for *Animal Behaviour*, *The Science of Nature (Naturwissenschaften)*, *Journal of Ornithology*, and *Wilson Journal of Ornithology*

Revisor contributor for *Birds of the World (BOW)*

Teaching

Fall 2025	BIOL 280 - Evolution. University of Tennessee, Knoxville.
Spring 2025	EEB459 - Comparative Animal Behavior Lab. University of Tennessee, Knoxville.
Fall 2024	EEB464 - Macroevolution. University of Tennessee, Knoxville.
Spring 2024	Biology 102 - Introduction to Biology: Biodiversity and Ecology. University of

Tennessee, Knoxville.

Fall 2023 Biology 101 - Introduction to Biology: Cells, Genetics, and Physiology. University of Tennessee, Knoxville.

Spring 2023 EEB422 - Landscape Ecology. University of Tennessee, Knoxville.

Fall 2022 Biology 101 - Introduction to Biology: Cells, Genetics, and Physiology. University of Tennessee, Knoxville.

Mentorship

Spring 2025 **Undergraduate Student**
Student: Ning Sun (2025)
University of Tennessee, Knoxville

Outreach

2026 **Darwin Day 2026 McClung Museum** Booth about bird morphology, diversity, and evolution

2025 **KidsU Summer 2025** Bird diversity class at the Vertebrate Biology Summer course

2025 **Knoxville Chapter of the Tennessee Ornithological Society (KTOS) Spring 2025 Meeting** Talk to the members of the KTOS bird club about my PhD research on female communication in antbirds

2025 **Darwin Day 2025 McClung Museum** Booth about bird morphology, diversity, sexual dimorphism and evolution

2024 **Darwin Day 2024 McClung Museum** Booth about bird behavior and song

2024 **McClung Enhanced Homeschool Event: Birds of a feather learn together** Booth about bird morphology, diversity, sexual dimorphism and evolution

2023 **Math in Nature Girl Scout, NIMBioS at UT Gardens**

2023 **Summer ACE Program El Paso, Texas** I designed crochet birds from seven different species of the suborder Tyranni. They were used at this outreach project organized by the 'Easy as Play'.

2023 **Darwin Day 2023 McClung Museum** Booth about animal behavior and heat stress

2022 **Science Expo North Clinton Elementary** Booth about birdsong