MAURÍCIO VANCINE

Spatial Ecologist and Doctoral Student in Ecology, Evolution and Biodiversity

I am a Spatial Ecologist and PhD student at Unesp Rio Claro, Brazil. I have experience in landscape ecology, effects of habitat loss and fragmentation, amphibian ecology, species distribution modeling, and analysis of ecological and spatial data.

🎓 EDUCATION

2020 | Present

São Paulo State University (UNESP)
[Doctoral Student in Ecology, Evolution and Biodiversity](#) 📍 Rio Claro, SP, Brazil
Thesis: Effect of landscape changes on communities amphibians in the Atlantic Forest
Advisor: Prof. Milton Cezar Ribeiro

2016 | 2018

São Paulo State University (UNESP)
[Master in Zoology](#) 📍 Rio Claro, SP, Brazil
Thesis: Diversity, distribution and effect of climate change on Atlantic Forest amphibian communities ([UNESP Libraries](#))
Advisor: Prof. Célio Fernando Baptista Haddad

2011 | 2014

São Paulo State University (UNESP)
[Bachelor in Ecology](#) 📍 Rio Claro, SP, Brazil
Thesis: Effect of fragmentation on the persistence of anuran amphibians (Amphibia: Anura) within the Atlantic Forest ([UNESP Libraries](#))
Advisor: Prof. Milton Cezar Ribeiro

📖 COMPLEMENTARY EDUCATION

2020

Hierarchical Modelling of Species Communities with the R-package Hmsc
University of Helsinki (Zoom) 📍 Helsinki, Finland
• 25 h [course](#)

2020

School on Community Ecology: from patterns to principles
São Paulo State University (UNESP) 📍 São Paulo, SP, Brazil
• 60 h [course](#)

2019

Introduction to Hierarchical Modeling
Federal University of Rio Grande do Sul (UFRGS) 📍 Porto Alegre, RS, Brazil
• 45 h [course](#)

2016

Geoprocessing with GRASS GIS
São Paulo State University (UNESP) 📍 Rio Claro, SP, Brazil
• 24 h

2016

V Southern-Summer School on Mathematical Biology
São Paulo State University (UNESP) 📍 São Paulo, SP, Brazil
• 53 h [course](#)

2015

Biology and conservation of amphibians and reptiles
Instituto Boitatá, IBEC 📍 Alfenas, MG, Brazil
• 44 h

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⬇ [Short version](#)

CONTACT

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✉ [mauricio.vancine@gmail.com](#)
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🐙 [github/mauriciovancine](#)
🆔 [0000-0001-9650-7575](#)
🅱 [9761288418931193](#)

THEMES

🌐 Spatial Ecology
🌍 Landscape Ecology
📊 Ecology Modeling
📚 Geoprocessing
🐸 Amphibian Ecology

SKILLS

ℝ [R](#)
💻 [tidyverse](#)
Ⓜ [markdown](#)
⑂ [git (básico)](#)
🐍 [python (básico)](#)
>_ [bash (básico)](#)
Q [QGIS](#)
Ｙ [GRASS GIS](#)
🐧 [GNU/Linux](#)

LANGUAGES

Portuguese (Native speaker)
English (A2)
Spanish (A1)

CV by **pagedown** R package.
Code available on 🐙 [GitHub](#).
Last updated on 2021-10-10.

2011 ● **Ecological data analysis with R**
São Paulo State University (UNESP) 📍 Rio Claro, SP, Brazil
• 40 h

🏅 SCHOLARSHIP & AWARDS

2020
|
2024
● **Doctoral Graduate Scholarship**
Coordination of Superior Level Staff Improvement (Capes) (BRL 118,680.00)
São Paulo State University (UNESP)
Grant 88887.513979/2020-00
📍 Rio Claro, SP, Brazil

Title: Effect of landscape changes on communities amphibians in the Atlantic Forest
Aim: Developing

2017
|
2018
● **Master Graduate Scholarship**
São Paulo Research Foundation (FAPESP) (BRL 16,248.54) 📍 Rio Claro, SP, Brazil
São Paulo State University (UNESP)
Grant #2017/09676-8
Title: Effect of Landscape Modifications and Climate Changes on the Persistence of
Amphibians in the Atlantic Forest
Aim: (1) to present an assessment of the surveys of the amphibian communities for the
Atlantic Forest, their composition and distribution; (2) to investigate how habitat loss and
fragmentation on the regional scale can affect the current persistence of amphibians from
different reproductive guilds; and (3) to investigate how climate change may affect the
future persistence of amphibians of the genus *Brachycephalus*, considered highly sensitive
to these climatic changes

2013
|
2015
● **Scientific Initiation Scholarship**
São Paulo Research Foundation (FAPESP) (BRL 10,539.87) 📍 Rio Claro, SP, Brazil
São Paulo State University (UNESP)
Grant #2013/02883-7
Title: Effect of fragmentation on the persistence of anuran amphibians (Amphibia: Anura)
within the Atlantic Forest
Aim: (1) model the potential distribution based on the environmental suitability of the
species of interest; (2) identify landscapes with high environmental suitability and surveys
with high sampling effort in order to characterize the regional anurofauna; and (3) evaluate
the relative contribution of landscape indices (percentage of forest cover, connectivity,
relief and urban proximity) to the persistence of species using model selection for multiple
competing hypotheses based on Akaike information theory

💻 RESEARCH EXPERIENCE

2015
|
2016
● **Research Assistant**
São Paulo State University (UNESP) 📍 Rio Claro, SP, Brazil
Spatial Ecology and Conservation Lab (LEEC)
Statistical and spatial analyzes of mammal and ants biodiversity in the Atlantic Forest
Biome

• 2000 h

From 2015 to 2016, I was a
Research Assistant of
Prof. Milton Cezar Ribeiro where
I developed statistical and spatial
analysis of mammal and ants
biodiversity in the Atlantic Forest
Biome

💼 PROFESSIONAL EXPERIENCE

2020
|
2021
● **Environmental consultant**
Seleção Natural
📍 Piracicaba, SP, Brazil
• Ecological corridors • LSCorridors
• Landscape metrics • LSMetrics

Since 2016, I have worked as an
autonomous environmental
consultant in the field of
geoprocessing, analysis of
ecological data, landscape
ecology and species distribution
modeling

2019
|
2021

Environmental consultant
PROECO Ambiental
• Species distribution modeling

📍 Poços de Caldas, MG, Brasil

2018
|
2019

Environmental consultant
Seleção Natural
• Ecological data analyst

📍 Piracicaba, SP, Brazil

2018
|
2019

Environmental consultant
Aquaflora
• Species distribution modeling

📍 Curitiba, PR, Brazil

2018
|
2019

Environmental consultant
Associação de Levantamento Florestal do Amazonas
• Shiny App

📍 Manaus, AM, Brazil

2018
|
2019

Environmental consultant
ECOnecta
• SIG specialist   • GRASS GIS

📍 Rio Claro, SP, Brazil

2015
|
2016

Environmental consultant
Geoinform
• Herpetology field assistant

📍 Rio Claro, SP, Brazil

Between 2018 and 2019, I composed a group of analysts to assess the impact of the Fundão dam rupture in Marina/MG (Brazil) on the Rio Doce Basin, where I compiled land cover information and built models for the distribution of terrestrial and aquatic species to several scenarios

🖥️ TEACHING EXPERIENCE

Courses
Total hours:
Graduate: 240 h
Undergraduate: 102 h

2020

8. Introduction to geospatial analysis with R
Invited teacher
Ecology, Biodiversity and Evolution Graduate Program
São Paulo State University (UNESP)
• 60 h   • material

📍 Rio Claro, SP, Brazil

2020

7. Statistical Models in Ecology
Teacher
Ecology Undergraduate
São Paulo State University (UNESP)
• 30 h

📍 Rio Claro, SP, Brazil

2019

6. Introduction to Geoprocessing for Ethnobiology and Biodiversity Conservation
Invited external teacher
Ethnobiology and Nature Conservation Graduate Program
Rural Federal University of Pernambuco (UFRPE)
• 45 h   • material

📍 Recife, PE, Brazil

2018

5. Statistical Models in Ecology
Teaching assistant
Ecology Undergraduate
São Paulo State University (UNESP)
• 12 h

📍 Rio Claro, SP, Brazil

Since my formation I develop teaching activities, initially as a monitor. From the master's degree, I help and minister undergraduate and graduate courses, especially those related to Space Ecology, Species Distribution Models, Statistical Models in Ecology and Geoprocessing.

2017 • **4. Ecological Niche Modeling: theory and practice**
Teaching assistant   📍 Rio Claro, SP, Brazil
Ecology and Biodiversity Graduate Program
São Paulo State University (UNESP)
• 60 h

2016 • **3. Ecological Niche Modeling: theory and practice**
Teaching assistant   📍 Campinas, SP, Brazil
Ecology Graduate Program
The University of Campinas (UNICAMP)
• 45 h

2016 • **2. Ecological Niche Modeling in R**
Teaching assistant   📍 Rio Claro, SP, Brazil
Ecology and Biodiversity Graduate Program
São Paulo State University (UNESP)
• 30 h

2015 • **1. Quantitative Ecology**
Teaching assistant   📍 Rio Claro, SP, Brazil
Ecology Undergraduate
São Paulo State University (UNESP)
• 60 h

Workshops
Total hours: 87 h

2021 • **10. Geoprocessing with QGIS**
Short course instructor   📍 On-Line
32ª Biology Studies Week
São Paulo State University (UNESP)
• 03 h   • material

2021 • **9. Introduction to species distribution modeling using the R language**
Workshop instructor   📍 On-Line
Mastozóologos Organizados em uma Conferência Online (MOCÓ)
Sociedade Brasileira de Mastozoologia
• 06 h   • material

2019 • **8. Introduction to R Language**
Short course instructor   📍 Rio Claro, SP, Brazil
XXX Ecology Studies Week
São Paulo State University (UNESP)
• 08 h   • material

2019 • **7. Introduction to R Language**
Short course instructor   📍 Rio Claro, SP, Brazil
30ª Biology Studies Week
São Paulo State University (UNESP)
• 08 h   • material

2019 • **6. Introduction to Species Distribution Modeling using R Language: theory and practice**
Short course instructor   📍 Campinas, SP, Brazil
9º Brazilian Congress of Herpetology
The University of Campinas (UNICAMP)
• 07 h   • material

Since 2014, I teach practical training courses, mainly related to the R language and Species Distribution Models

2018 **5. Field work with amphibians**
Short course instructor   📍 Rio Claro, SP, Brazil
29ª Biology Studies Week
São Paulo State University (UNESP)
• 08 h

2016 **4. Field herpetology**
Short course instructor   📍 Rio Claro, SP, Brazil
XXVII Ecology Studies Week
São Paulo State University (UNESP)
• 15 h

2016 **3. Introduction to software R: data management, graphs and statistical analysis**
Short course instructor   📍 Rio Claro, SP, Brazil
XXVII Ecology Studies Week
São Paulo State University (UNESP)
• 16 h

2015 **2. Introduction to software R**
Short course instructor   📍 Rio Claro, SP, Brazil
XXVI Ecology Studies Week
São Paulo State University (UNESP)
• 08 h

2014 **1. Organization of data in electronic sheets - Calc**
Short course instructor   📍 Rio Claro, SP, Brazil
XXV Ecology Studies Week
São Paulo State University (UNESP)
• 08 h

📄 PUBLICATIONS

2021 **18. Invasive wild boar's distribution overlap with threatened native ungulate in Patagonia**
Journal of Mammalogy in press gyab099
DOI: 10.1093/jmammal/gyab099
Bercê W, Bello C, Mendes CP, **Vancine MH**, Galetti M, Ballaru SA

2021 **17. Setting Priority Conservation Management Regions to Reverse Rapid Range Decline of a Key Neotropical Forest Ungulate**
Global Ecology and Conservation in press
DOI: 10.1016/j.gecco.2021.e01796
Oshima JEF, Jorge MLSP, Sobral-Souza T, Börger L, Keuroghlian A, Peres CA, **Vancine MH**, Collen B, Ribeiro MC

2021 **16. Forest cover and connectivity have pervasive effects on the maintenance of evolutionary distinct interactions in seed dispersal networks**
Oikos in press
DOI: 10.1111/oik.08240
Monteiro ECS, Pizo MA, **Vancine MH**, Ribeiro MC

Citations
Publons
Scopus
Google Scholar

2021 ● **15. Distribution of macroalgal epiphytes and host species from the Cuban marine shelf inferred from ecological modelling**
Aquatic Botany 172:103395
DOI: 10.1016/j.aquabot.2021.103395
Jover A, Cabrera A, Ramos A, **Vancine MH**, Suárez AM, Machell J, Perez-Llórens JL

2021 ● **14. Future impacts of climate change on migratory bird flyways in South America**
The Condor: Ornithological Applications 123:1-16
DOI: 10.1093/ornithapp/duab006
Da Silveira NS, **Vancine MH**, Jahn AE, Pizo MA, Sobral-Souza T

2021 ● **13. Host diversity outperforms climate as a global driver of symbiont diversity in the bird-feather mite system**
Diversity and Distributions 27(3):416-426
DOI: 10.1111/ddi.13201
Gusmão RAF, Hernandes FRA, **Vancine MH**, Naka LN, Doña J, Gonçalves-Souza T

2021 ● **12. Environmental niche and functional role similarity between invasive and native palms in the Atlantic Forest**
Biological Invasions 21:741-754
DOI: 10.1007/s10530-020-02400-8
Bello C, Cintra ALP, Barreto E, **Vancine MH**, Sobral-Souza T, Graham CH, Galetti M

2020 ● **11. Effects of landscape modification on species richness patterns of fruit-feeding butterflies in Brazilian Atlantic Forest**
Diversity and Distributions 26(2):196-208
DOI: 10.1111/ddi.13007
Santos JP, Sobral-Souza T, Brown Jr KS, **Vancine MH**, Ribeiro MC, Freitas AVL

2020 ● **10. Fragmented tropical forests lose mutualistic plant-animal interactions**
Diversity and Distributions 26(2):154-168
DOI: 10.1111/ddi.13010
Marjakangas E, Abrego N, Grøtan V, Lima RAF, Bello C, Bovendorp RS, Culot L, Hasui E, Muylaert RL, Lima F, Niebuhr B, Oliveira AA, Pereira L, Prado I, Stevens RD, **Vancine MH**, Ribeiro MC, Galetti M, Ovaskainen O

2019 ● **9. Predicting the potential hybridization zones between native and invasive marmosets within Neotropical biodiversity hotspots**
Global Ecology and Conservation 20:e00706
DOI: 10.1016/j.gecco.2019.e00706
Moraes AM, **Vancine MH**, Moraes AM, Cordeiro CLO, Pinto MP, Lima AA, Culot L, Silva TSF, Collevatti RG, Ribeiro MC, Sobral-Souza T

2019 ● **8. Land-use changes and the expansion of biofuel crops threaten the giant anteater in southeastern Brazil**
Journal of Mammalogy 100(2):435–444
DOI: 10.1093/jmammal/gyz042
Bertassoni A, Costa RT, Gouvea JA, Bianchi BC, Ribeiro JW, **Vancine MH**, Ribeiro MC

2018 ● **7. Spatial prediction of risk areas for vector transmission of Trypanosoma cruzi in the State of Paraná, southern Brazil**
PLOS Neglected Tropical Diseases 12(10):e0006907
DOI: 10.1371/journal.pntd.0006907
Ferro e Silva AM, Sobral-Souza T, **Vancine MH**, Muylaert RL, Abreu AP, Pelloso SM, Carvalho MDB, Andrade L, Ribeiro MC, Toledo MJO

2018 **6. A note on the territorial limits of the Atlantic Forest**
Oecologia Australis 22(3):302–311
DOI: [10.4257/oeco.2018.2203.09](https://doi.org/10.4257/oeco.2018.2203.09)
Muylaert RL, **Vancine MH**, Bernardo R, Oshima JEF, Sobral-Souza T, Tonett VR, Niebuhr BBS, Ribeiro MC

2018 **5. ATLANTIC AMPHIBIANS: a data set of amphibian communities from the Atlantic Forests of South America**
Ecology 99(7):1692–1692
DOI: [10.1002/ecy.2392](https://doi.org/10.1002/ecy.2392)
Vancine MH, Duarte KS, Souza YS, Giovanelli JGR, Sobrinho PMM, López A, Bovo RP, Maffei F, Lion MB, Ribeiro-Júnior JW, Brassaloti R, Ortiz C, Sawakuchi HO, Forti LR, Cacciali P, Bertoluci J, Haddad CFB, Ribeiro MC

2018 **4. Efficiency of protected areas in Amazon and Atlantic Forest conservation: A spatio-temporal view**
Acta Oecologica 87:1–7
DOI: [10.1016/j.actao.2018.01.001](https://doi.org/10.1016/j.actao.2018.01.001)
Sobral-Souza T, **Vancine MH**, Ribeiro MC, Lima-Ribeiro MS

2017 **3. Forest cover influences occurrence of mammalian carnivores within Brazilian Atlantic Forest**
Journal of Mammalogy 98:1721–1731
DOI: [10.1093/jmammal/gyx103](https://doi.org/10.1093/jmammal/gyx103)
Regolin AL, Cherem JJ, Graipel ME, Bogoni JA, Ribeiro JW, **Vancine MH**, Tortato MA, Oliveira-Santos LG, Fantacini FM, Luiz MR, Castilho PV, Ribeiro MC, Cáceres, NC

2017 **2. Impacts of mining activities on the potential geographic distribution of eastern Brazil mountaintop endemic species.**
Perspectives in Ecology and Conservation 15(3):172–178
DOI: [10.1016/j.pecon.2017.07.005](https://doi.org/10.1016/j.pecon.2017.07.005)
De Castro Pena J, Goulart F, Fernandes GW, Hoffmann D, Leite FSF, Santos NB, Soares-Filho B, Sobral-Souza T, **Vancine MH**, Rodrigues M

2017 **1. High mammal species turnover in forest patches immersed in biofuel plantations**
Biological Conservation 210:352–359
DOI: [10.1016/j.biocon.2017.02.033](https://doi.org/10.1016/j.biocon.2017.02.033)
Beca G, **Vancine MH**, Carvalho CS, Pedrosa F, Alves RSC, Buscariol D, Peres CA, Ribeiro MC, Galetti M