

TAINÁ ROCHA

I am a researcher working on patterns of biodiversity distribution, focusing on the impacts of global change (climate change and land-use and land-cover change). My recent interests and researches comprise: **1.** Analysis of climate data and land use and land cover data under different scenarios of climate change, **2.** Spatial analysis of species diversity (alpha and beta diversity), **3.** Ecological niche models/species distribution models and other niche analyses to assess the impacts of global change on biodiversity, **4.** Biogeographical patterns and evolutionary history in the Neotropics.

Note: I use open-source tools and platforms. I am interested in good practices about open science (open databases, open software, etc.), good workflows, reproducibility and FAIR principles.



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EDUCATION

- | | | |
|--|---|-----------------|
| 2017

2013 | <ul style="list-style-type: none">● PhD. in Zoology
Emílio Goeldi Museum | 📍 MPEG, Brazil |
| <ul style="list-style-type: none">• DOCTORAL DISSERTATION: Phylogeographic of disjunct bird between Amazon and Atlantic Forest | | |
| 2012

2010 | <ul style="list-style-type: none">● MSc. in Environmental biology
Federal University of Pará | 📍 IECOS, Brazil |
| <ul style="list-style-type: none">• MASTER THESIS: Phylogeographic analysis of <i>Xiphorhynchus guttatus</i> from Amazon and Atlantic Forest | | |
| 2010

2006 | <ul style="list-style-type: none">● Degree in biological science
Federal University of Pará | 📍 UFPA, Brazil |



COMPLEMENTARY TRAINING COURSES

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|------|--|----------|
| 2021 | <ul style="list-style-type: none">● Flexdashboard: Interactive panels using R
🔗 Analyze. Share. Reproduce. Your data tells a story. Use rmarkdown and Flexdashboard and transform your analysis into high-quality documents, reports, presentations and dashboards. | 📍 Online |
| 2021 | <ul style="list-style-type: none">● Managing tables with dplyr R package
🔗 The main functions of dplyr for handling tables. | 📍 Online |
| 2021 | <ul style="list-style-type: none">● Regular expressions (regex) for data cleaning and transforming
🔗 Regex as part of the data cleaning and transformation process using Tidyverse R packages. | 📍 Online |

CONTACT

✉ taina013@gmail.com

🐙 [Github](#)

🆔 [ORCID](#)

👁 [Lattes](#)

📄 [Researchgate](#)

🌐 [LinkedIn](#)

🌐 [Website](#)

🐦 [Twitter](#)

2020 ● **Open Life Science program**
 OLS-2. Training for early stage researchers and young leaders interested in furthering their Open Science skills.

📍 Online

2020 ● **Writing academic manuscripts using rmarkdown**
 This training provided the different steps and tools for writing academic manuscripts or technical reports in an automated and reproducible way using R and rmarkdown.

📍 Online



RESEARCH EXPERIENCE

2021
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2019 ● **Postdoctoral Researcher**
 Botanical Garden Research Institute
 Supervisor: [Marinez F Siqueira](#)

📍 JBRJ, Brazil

- Beta diversity in Caatinga dry tropical forest
https://github.com/Tai-Rocha/Caatinga_Dry_Forest.github.io
- Beta diversity in Caatinga dry tropical forest
https://github.com/Tai-Rocha/Caatinga_Dry_Forest.github.io
- Climatic niche analysis for *Syzygiella rubricaulis* (Bryophytes)
https://github.com/Tai-Rocha/S_rubricaulis_bryophytes
- The first botanical explorations of bryophyte diversity in the Brazilian Amazon mountains: high species diversity, low endemism, and low similarity
<https://github.com/Tai-Rocha/Bryophyte-Amazon-mountains>
- Ecological niche models with future projections for *Dimorphandra wilsonii* Rizzini (Fabaceae) presented to Green List in the three-year activity plan of the Brazilian Plant Red List Authority member of the Plant Conservation Committee between 2017-2020 and the Species Survival Commission of the International Union for Conservation of Nature (IUCN)
<https://github.com/Tai-Rocha/faveiro>
- Ferns and lycophytes diversity of Tijuca forest.
<https://github.com/Tai-Rocha/Ferns-and-lycophytes>

2019
|
2017 ● **Researcher of Technological Development and Innovation**
 Ecoly departament
 Supervisor: [Mariana M Vale](#)

📍 UFRJ, Brazil

- Global land-use and land-cover (LULC) data under historical, current, and future climatic conditions
https://github.com/Tai-Rocha/LUH2_Data
- Ecological niche models (ENMs) for *Carpornis melanocephala* (Passeriformes: Cotingidae) in Rio de Janeiro State, Brazil
https://github.com/Tai-Rocha/Carpornis_melanocephala
- Ecological niche modeling and niche similarity test to compares two divergent lineages of *Microtus californicus* (Rodentia, Cricetidae)
<https://github.com/Tai-Rocha/Vole>
- Ecological niche modeling and niche similarity test to compares two divergent lineages of *Microtus californicus* (Rodentia, Cricetidae)
<https://github.com/Tai-Rocha/Vole>

SKILLS





TEACHING EXPERIENCE

- 2020
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2019
- **Instructor**
Biology department 📍 PUC-RJ, Brazil
 - Ecological Niche Models and Species Distribution Models, theory and practice
 - Public tools for spatial analysis of biodiversity
- 2020
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2020
- **Guest Lecture**
II National Meeting on Biological Collections and their Interfaces 📍 Vital Brazil Institute- RJ, Brazil
 - Ecological niche models and biological conservation in future scenarios of global changes
- 2019
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2018
- **Guest lecture.**
Biological Sciences- Bachelor's Degree 📍 UVA-RJ, Brazil
 - Ecological niche models under a biogeography perspective
 - Ecological Niche Models and Species Distribution Models
- 2018
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2017
- **Guest lecture**
Biological Sciences- Bachelor's Degree 📍 UFRA-PA, Brazil
 - Introduction to Geographic Information System (GIS)
 - Data for ecological niche models
- 2017
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2017
- **Guest lecture**
Biological Sciences Undergraduate 📍 UNESA-RJ, Brazil
 - Introduction to databases which provide input to perform ecological niche models
- 2017
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2015
- **High school teacher**
Dinâmica Natural 📍 RJ, Brazil
 - Science classes

NA



SELECTED PUBLICATIONS

- 2021
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2021
- **Global land-use and land-cover data: historical, current and future scenarios**
Accepted for publication in Biodiversity Informatics Journal , available in [bioRxiv](#)
 - Authored by Vale MM, Lima-Ribeiro MS and Rocha TC.
- 2020
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2020
- **The first botanical explorations of bryophyte diversity in the Brazilian Amazon mountains: high species diversity, low endemism, and low similarity**
[Biodiversity and conservation](#)
 - Authored by Costa D, Nada F. and Rocha TC.

- 2019
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2019
- **A dynamic continental moisture gradient drove Amazonian bird diversification**
Science Advances
• Authored by Silva SM, Townsend P, Carneiro L, Burlamaqui TCT, Ribas CC, Sousa-Neves T, Miranda LS, Fernandes AM, d'Horta FM, Araújo-Silva LC, Batista R, Bandeira CHMM, Dantas SM, Ferreira M, Martins DM, Oliveira J, Rocha TC, Sardelli CH, Gregory T, Rêgo PS, Santos MP, Sequeira F, Vallinoto M and Aleixo A.
- 2019
|
2019
- **A macroecological approach to evolutionary rescue and adaptation to climate change**
Ecography
• Authored by Diniz-Filho JAF, Souza KS, Bini LM, Loyola R, Dobrovolski R, Rodrigues JFM, Lima-Ribeiro Matheus MS, Terribile CL, Rangel TF, Bione I, Freitas R, Machado IF, Rocha TC, Lorini ML, Vale MM, Navas CA, Maciel NM, Villalobos F, Olalla-Tarraga MA, Gouveia S.
- 2015
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2015
- **Molecular phylogeny and diversification of a widespread Neotropical rainforest bird group: The Buff-throated Woodcreeper complex, *Xiphorhynchus guttatus/susurrans* (Aves: Dendrocolaptidae)**
Molecular Phylogenetics and Evolution
• Authored by Rocha TC, Sequeira F, Aleixo A, Rego PS, Sampaio I, Schneider H, Vallinoto M.
- 2014
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2014
- **Instabilidade Climática e diversidade de espécies na Amazônia**
In book: Cenários para Amazônia: clima, biodiversidade e uso da terra
• Authored by Aleixo A, Townsend P, Araújo-Silva LC, Miléo CHM, Batista R, Burlamaqui TCT, Danta SM, Fernandes AM, Ferreira M, Martins DM, Rêgo PS, Ribas CC, Rocha TC, Santos MP, Sardelli CH, Sequeira F, Soares LMS, de Sousa BRS, Sousa SA, Sousa-Neves T, Gregory T, Vallinoto M.
- 2009
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2009
- **Identification and phylogenetic inferences on stocks of sharks affected by the fishing industry off the Northern coast of Brazil**
Genetics and Molecular Biology
• Authored by Rodrigues-Filho LF, Rocha TC, Rego PS, Schneider H, Sampaio I, Vallinoto M.



MEMBER OF EXAMINATION COMMITTEE

- 2021
- **Leave out or put in - selecting input data to improve ecological niche models applied to conservation and climate change analysis: an approach using the Atlantic Goliath Grouper, *Epinephelus itajara* (Perciformes)**

Final Master committee. Student: Eduardo Motta Carelli Minsky.
Advisor: Maria Lucia Lorini. Institution: UNIRIO

📍 UNIRIO-RJ, Brazil

- 2021 ● **Wallacean knowledge shortfall of mammals in the Central Corridor of the Atlantic Forest**
Final undergraduate committee. Student: Inês Motta Comarella.
 Advisor: Francisco Candido Cardoso Barreto. Institution: UFES
 📍 UFES-ES, Brazil

- 2021 ● **Impacts on the food behavior of birds in the urban, semi-urban and rural environment in the municipal of Capanema, Pará**
Final undergraduate committee. Student: Luana Gabriela Costa Bezerra. Advisor: Breno Barros. Institution: UFRA
 📍 UFRA-PA, Brazil

- 2021 ● **Modeling species distribution of plant species as tool for assessing the impacts of climate changes and progress of Sustainable Development Goals (SDGs) 13 and 15 in Caatinga biome**
Master's qualifying examination. Student: Lucas Peixoto Teixeira. Advisor: Marcelo Freire Moro. Institution: UFC
 📍 UFC-CE, Brazil

- 2020 ● **Strategies for conservation of endemic and threatened species: *Hindsia glabra* K.Schum & *Aosa uleana* (Urb. Gilg) Weigend**
Master's project monitoring committee. Student: Bárbara Piovani Luz Aieta Afonso. Supervisor: Marinez Ferreira de Siqueira. Institution: ENBT/JBRJ
 📍 ENBT-RJ, Brazil

- 2018 ● **Seabird habitat use and its association with foraging with Guiana dolphin (*Sotalia guianensis*) in Sepetiba Bay (2018).**
Undergraduate monitoring committee. Student: Leonardo Gomes Pacheco de Sá. Advisor: Maria Alice dos Santos Alves. Co-advisor: Rodrigo Hipolito Tardin Oliveira. Institution: UFRJ
 📍 UFRJ-RJ, Brazil



SELECTED TALKS & SCIENTIFIC COMMUNICATION

- 2020 ● **Global land-use and land-cover data: historical, current and future scenarios**
 Final presentation in [OLS-2 | Slides](#) 📍 Online

- 2019 ● **Connecting data and experiences: Biodiversity, Information and Communication Technologies in Brazil**
[RNP 2019 | Slides](#) 📍 DF, Brazil



SELECTED EVENTS

- 2021 ● **V International Seminar on Statistics with R**
V SER event was recognized by the R Foundation (2018) for its pioneering in Latin America in bringing together an expressive number of R users | Participation as a listener.
 📍 Online

I recently created a website, I will talk about science communication, provide tutorials, other diverse themes about science career [LiveFreeOrDichotomize.](#)⁷

2019

● Forum of Rede Nacional de Ensino e Pesquisa

[RNP 2019](#). Challenges of digital transformation in teaching and research will lead debates at 2019 RNP Forum| Participation as Guest speaker.

📍 DF, Brazil

*This resume was made with the
R packages [pagedown](#) and
[datadrivencv](#).*

Code available on [GitHub](#).

*Last updated on 2021-07-26. The
most recent version of this
resume is [available here](#).*