

# Raquel C. Pizzardo<sup>(she/her)</sup>

Curriculum Vitae (May 2023)

## PERSONAL INFORMATION

**Nationality** Brazilian

**Languages** Portuguese (native speaker), English (fluent), Spanish (conversational).

**Professional address** University of Michigan, 1105 North University Ave, Biological Sciences Building, Central Campus. 481091085. Ann Arbor, Michigan, USA

**Email** [raquel.pizzardo@gmail.com](mailto:raquel.pizzardo@gmail.com) / [pizzardo@umich.edu](mailto:pizzardo@umich.edu)

**GitHub** <https://github.com/rpizzardo>

**Researchgate** [https://www.researchgate.net/profile/Raquel\\_Pizzardo](https://www.researchgate.net/profile/Raquel_Pizzardo)

**Website** <https://rpizzardo.github.io/>

## EDUCATION

**2022 – present** PhD in Ecology and Evolutionary Biology, University of Michigan, USA

**2021 – 2022** MSc. in Ecology and Evolutionary Biology, University of Michigan, USA

**2017 – 2021** BSc. in Biological Sciences, Universidade de São Paulo, SP, Brazil

## RESEARCH INTERESTS

Geographic distribution, evolutionary processes, diversification, and conservation biology. My previous research experience spans biogeography, conservation, diversification, phylogenetics and systematics, using plants as my study systems.

## RESEARCH EXPERIENCE

**July 2021 – present** “The role of assembly processes in shaping dominant tree communities in the Amazon rainforest” PI: Christopher Dick; co-PI: Stephen Smith. Phd Dissertation Proposal

I am studying phylogenetic community structure in the Chrysophylloideae subfamily of Sapotaceae to understand local patterns of coevolution and coexistence. I aim to answer the following kinds of questions (1) How did clades of Chrysophylloideae assemble in the Neotropics?; (2) Does environmental heterogeneity help promote the regional scale coexistence of Chrysophylloideae diversity?; (3) What is the role of plant-insect interactions in defining biotic niche differences among locally coexisting species? This work will entail phylogenetic and biochemical analyses, and field studies primarily in the Western Amazon region. My main goal is to explore the drivers of the diversification of a dominant Amazonian tree family considering different assembly processes and their consequences to the current community structure observed.

**May 2022 – August 2022** Graduated Student Curatorial Assistant. University of Michigan, EEB GSCA funding. Supervisor: Bradley Ruhfel

I organized specimens collected in the past, did imaging and processed specimens, created new workbench and did workbench data entry, mounted specimens, and update species name on Specify.

**October 2018 – January 2021** “The challenge of tracing conservation policies in naturally fragmented habitats: the flora of the Espinhaço Range in a scenario of climate change”. FAPESP (grant number 2018/24601-7), PI: Thais N. C. Vasconcelos. Bursary for undergraduate internship.

I performed species distribution models for twelve different species that differ in their distribution to assess whether the distribution of species endemic of the Espinhaço Range will be affected differently by predicted scenarios of climate change.

**November 2019 – December 2020 Brazil** Flora Group (*Syzygium* - Myrtaceae) based at the Rio de Janeiro Botanical Garden (collaborator).

I prepared a monograph for the Brazilian Flora 2020.

**December 2019 – February 2020** “Combining risk assessment and evolutionary distinctiveness in the conservation of *Chamaecrista* ser. *Coriaceae* (Fabaceae) from the Espinhaço Range”. FAPESP (grant number 2019/18627-6). PI: Thais N. C. Vasconcelos; co-PI: Eimear NicLughadha. Grant for academic visit to the Royal Botanic Gardens Kew.

I performed Evolutionarily Distinct and Globally Endangered (EDGE) and Phylogenetic Diversity methods for the clade of *Chamaecrista* ser. *Coriaceae* to analyze the peculiarities of conservation priorities in a “sky” island system, the mountain chains in *campo rupestre*.

## GRANTS AWARDED

**2023** “Uncovering hidden taxonomic diversity within hyperdominant tree genus *Pouteria* Aubl. (Sapotaceae) in the Amazon rainforest” ASPT Graduate Research Grant: Shirley and Alan Graham Grant **\$1,500**

**2023** “Uncovering hidden taxonomic diversity within hyperdominant tree genus *Pouteria* Aubl. (Sapotaceae) in the Amazon rainforest” IAPT Biodiversity Challenge 2022 **\$4,000**

**2022** “Uncovering hidden taxonomic diversity within hyperdominant tree genus *Pouteria* Aubl. (Sapotaceae) in the Amazon rainforest” Rackham Graduate Student Research Grant (Umich) **\$1,500**

**2022** “Analyzing the species richness of *Pouteria* Aubl. (Sapotaceae): increasing the samples from the Ericales project” Block grant (EEB - Umich) **\$1,162**

## PUBLICATIONS

**3** Pizzardo RC, NicLughadha E, Rando JG, Forest F, Walker B, Prochazka L, Nogueira A, Vasconcelos TNC (in prep.). Conserving the evolutionary history of rapid and recent radiations: a study case with *Chamaecrista* ser. *Coriaceae* (Fabaceae) in the *campo rupestre*.

**2** BFG – The Brazilian Flora Group, Pizzardo RC, et al. (2021). Flora of Brazil 2020. 1-28pp. Jardim Botânico do Rio de Janeiro, Rido de Janeiro.

**1** Pizzardo RC, Vasconcelos TNC, Nogueira A, Prochazka L, Cota MMT, Rando JG (2021). Field Guide: Espinhaço Range and Chapada dos Veadeiros, BRAZIL - *Chamaecrista* ser. *Coriaceae* (Fabaceae) of *campo rupestre*. *Field Museum* (<https://fieldguides.fieldmuseum.org/guides/guide/1336>).

## PRESENTATIONS

**2022** “Phylogenetic incongruence in an important tropical tree family, Sapotaceae, based on target sequence captured nuclear and plastome genes” (speaker). Botany 2022 (Anchorage – AK, USA)

**2020 & 2021** “Conserving the evolutionary history of rapid and recent radiations: a study case with an endemic clade in the *campo rupestre*” (speaker). 28<sup>th</sup> USP International Symposium of Undergraduate Research (virtual).

**2020** “Conserving the evolutionary history of rapid and recent radiations: a study case with *Chamaecrista* ser. *Coriaceae* (Fabaceae) in the *campo rupestre*” (video-poster). I Digital Symposium of Systematics and Evolution of Plants (virtual).

**2019** “The challenge of tracing conservation policies in naturally fragmented habitats: the flora of the Espinhaço Range in a scenario of climate change” (poster & speaker). 70th Brazilian National Conference of Botany (Maceió – AL, Brazil).

**2019** “The challenge of tracing conservation policies in naturally fragmented habitats: the flora of the Espinhaço Range in a scenario of climate change” (poster). 39th Regional Botany Meeting (MG, ES e BA).

## FIELD EXPERIENCE

**November-December 2020** Serra da Canastra and Espinhaço Range Southern, Minas Gerais, Brazil. 8 days. Field collection and identification of species of Ericales order in Atlantic Forest and *campo rupestre* ecosystem.

**September 2019** Espinhaço Range Southern, Minas Gerais, Brazil. 10 days. Field collection and identification of *Chamaecrista* species (Fabaceae) in *campo rupestre* ecosystem.

**March 2019** Espinhaço Range Southern, Minas Gerais, Brazil. 5 days. Field collection and identification of flora in *campo rupestre* ecosystem.

**January 2019** Chapada Diamantina, Bahia, Brazil. 7 days. Field collection and identification of flora in *campo rupestre* ecosystem.

## TEACHING EXPERIENCE

**2022 (fall term)** Graduate Student Instructor in “Introductory Biology Lab” (University of Michigan, USA). Taught lab classes and support of students during extra class activities and studies.

**2022 (winter term)** Graduate Student Instructor in “Introductory Biology: Ecology and Evolution” (University of Michigan, USA). Taught discussion classes and support of students during extra class activities and studies.

**2021 (fall term)** Graduate Student Instructor in “Introductory Biology Lab” (University of Michigan, USA). Taught lab classes and support of students during extra class activities and studies.

**2019 & 2020 (two semesters)** Undergraduate Teach Assistant in “Diversity and Evolution of Photosynthetic Organisms” (Universidade de São Paulo, Brazil). Assisted in the preparation and presentation of practical classes and support of students during extra class activities and studies.

**2018** “Genetics” (undergraduate course – Universidade de São Paulo, Brazil). Assisted in the preparation of practical classes with *Drosophila* and support of students during extra class activities and studies.

## SKILLS

**R programming language:** competent user, including tools for data analysis and curation, statistical operations, biogeography and species distribution modelling. Main Packages: sdm, Coordinate Cleaner, rgbif, raster, ape, phytools, picante and rCAT.

**ArcGIS:** competent user to work with maps and geographic information.

**IUCN Risk Assessment:** assessment of species and contribution to the IUCN Red List, a critical indicator of the health of the world’s biodiversity.

**Adobe:** competent user in Illustrator and Photoshop.

## AWARDS & HONORS

**2022** Rackham Conference Travel Award (University of Michigan) **\$1,150**

**2021** Honorable Mention at the 28<sup>th</sup> USP International Symposium of Undergraduate Research.

**2019** Award for best undergraduate project (*Prêmio Verde*) presented at the 70th Brazilian National Congress of Botany by the Brazilian Society of Botany (*Sociedade Botânica do Brasil SBB*).

## SERVICE AND OUTREACH

**2022** Feria de Ciencias. Bringing science for bilingual kids.

**2020** “Brazil’s secret gardens”. Publication of a Science Story for the Kew Science website (<https://www.kew.org/read-and-watch/campo-rupestre-brazil-secret-gardens>).

**2019** Member of the organization team of “Bioblitz program: Counting Species Through Citizen Science”, organized at the Universidade de São Paulo, Brazil

<https://www.inaturalist.org/projects/university-of-sao-paulo-natural-reserve-bioblitz-ngs-2019>).

**2018–2020** Conference organizer, Semana Temática da Biologia  
(<https://semanatematica.ib.usp.br/>).

### **ACTIVE SOCIETY MEMBERSHIPS**

Sociedade Brasileira de Botânica, SBB.

The American Society of Plant Taxonomists, ASPT

### **VOLUNTEER**

**2021 – present** F.E.M.M.E.S. (University of Michigan)