

Pedro Henrique Pezzi

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Postdoctoral Fellow
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University of Arkansas
Department of Biological Sciences
Fayetteville, AR, USA

EDUCATION

2019 – 2023 Ph.D. in Genetics and Molecular Biology

Federal University of Rio Grande do Sul

Visiting student at the University of Colorado at Boulder (CAPES-PrInt scholarship). Stacey Smith's lab.

Project Title: Híbridaç o e especiaç o em *Petunia* e grupos relacionados: uma abordagem filogen mica.

Advisor: Loreta Brand o de Freitas

2018 – 2019 Bachelor of Science, Biology

Federal University of Rio Grande do Sul

Advisor: Paula Beatriz de Araujo

2013 – 2018 Bachelor of Education, Biology

Federal University of Rio Grande do Sul

Visiting student at the California State University, Fullerton (Science without Borders/CAPES scholarship)

Advisor: Heloisa Junqueira

PROFESSIONAL EXPERIENCE

2024 Postdoctoral Fellow - University of Arkansas (Latvis Lab)

PUBLICATIONS

Google Scholar: Citations: 59; h-index 4. [[link](#)] **Web of Science:** Citations: 46; h-index 4. [[link](#)]

Published

Giudicelli, G. C.*, **Pezzi, P. H.***, Guzm n-Rodr guez, S., Turchetto, C., Bombarely, A., & Freitas, L. B. (2024). Historical and Ongoing Hybridisation in Southern South American Grassland Species. *Scientific Reports*, 14, 27989. <https://doi.org/10.1038/s41598-024-79584-9> *These authors contributed equally to this work.

Pezzi, P. H., Wheeler, L. C., Freitas, L. B., & Smith, S. D. (2024). Incomplete lineage sorting and hybridization underlie tree discordance in *Petunia* and related genera (Petunieae, Solanaceae). *Molecular Phylogenetics and Evolution*, 198, 108136. <https://doi.org/10.1016/j.ympev.2024.108136>

Souza, A. C., Soares, L. S., Backes, A., Simon, L., **Pezzi, P. H.**, Turchetto, C., & Freitas, L. B. (2024). Unraveling the genetic diversity and taxonomic ambiguities of endemic *Petunia* species from subtropical highland grasslands. *Botanical Journal of the Linnean Society*, 204, boae016. <https://doi.org/10.1093/botlinnean/boae016>

- Backes, A., **Pezzi, P. H.**, Gonçalves, L. T., Greppi, J. A. & Freitas, L. B. (2023).. Integrating morphology, niche modelling, and molecular data to disentangle taxonomic challenges in a species complex of *Calibrachoa* (Solanaceae). *Plant Ecology and Diversity*, 16, 165-77. <https://doi.org/10.1080/17550874.2023.2274842>
- Pezzi, P. H.***, Gonçalves, L. T.*, Deprá, M., & Freitas, L. B. (2023). Evolution and diversification of the O-methyltransferase (OMT) gene family in Solanaceae. *Genetics and Molecular Biology*, 46, e20230121. <https://doi.org/10.1590/1678-4685-GMB-2023-0121> *These authors contributed equally to this work.
- Pezzi, P. H.**, Guzmán-Rodríguez, S., Giudicelli, G. C., Turchetto, C., Bombarely, A., & Freitas, L. B. (2022). A convoluted tale of hybridization between two *Petunia* species from a transitional zone in South America. *Perspectives in Plant Ecology, Evolution and Systematics*, 56, 125688. <https://doi.org/10.1016/j.ppees.2022.125688>
- Gonçalves, L. T., **Pezzi, P. H.**, & Bianchi F. M. (2022). Four new stink bug mitogenomes corroborate the internal inconsistencies in the classification of Pentatomidae (Hemiptera). *Zootaxa*, 5120, 128-142. <https://doi.org/10.11646/zootaxa.5120.1.8>
- Wheeler, L. C., Walker, J. F., Ng, J., Deanna, R., Dunbar-Wallis, A., Backes, A., **Pezzi, P. H.**, Palchetti, M. V., Robertson, H. M., Monaghan, A., Freitas, L. B., Barboza, G. E., Moyroud, E., & Smith, S. D. (2022). Transcription factors evolve faster than their structural gene targets in the flavonoid pigment pathway. *Molecular biology and evolution*, 39, msac044. <https://doi.org/10.1093/molbev/msac044>
- Zimmermann, B. L., Cardoso, G. M., Bouchon, D., **Pezzi, P. H.**, Palaoro, A. V., & Araujo, P. B. (2021). Supergroup F *Wolbachia* in terrestrial isopods: Horizontal transmission from termites?. *Evolutionary ecology*, 35, 165-182. <https://doi.org/10.1007/s10682-021-10101-4>
- Pezzi, P. H.**, Araujo, P. B., & Wood, C. T. (2019). Coprophagy in detritivores: methodological design for feeding studies in terrestrial isopods (Crustacea, Isopoda, Oniscidea). *Nauplius*, 27. <https://doi.org/10.1590/2358-2936e2019010>

Submitted

- Gonçalves, L. T., **Pezzi, P. H.**, Montagner F. R. G., Souza W. V., Françoso E., & Deprá M. *submitted*. The genome of the bellicose bumblebee (*Bombus bellicosus*), a threatened pollinator in a changing South American landscape.
- Pezzi, P. H.**, Gonçalves, L. T., Backes, A., Giudicelli, G. C., Turchetto, C., Bombarely, A., & Freitas, L. B. *submitted*. Evaluating the evolutionary origin of atypical *Petunia* populations in a hybridization hotspot.

GRANTS AND AWARDS

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| 2024 | BSA Professional Member Travel Grants – \$500 |
| 2023 | Godfrey Hewitt Mobility Award, European Society for Evolutionary Biology – €1,822 |
| 2022 | CAPES, Brazilian Ministry of Education. Visiting PhD student at CU Boulder – \$10,900 |
| 2022 | Emergency Degree Continuation Award, Society for the Study of Evolution – \$500 |
| 2022 | Productivity award from the PPGBM/UFRGS graduate program – R\$1,200 |
| 2022 | ESEB Conference Travel Award, European Society for Evolutionary Biology – €1,340 |
| 2019 | CNPq, Brazilian Ministry of Science, Technology and Innovation. Doctoral Scholarship. |
| 2015 | CAPES, Brazilian Ministry of Education. Visiting student at CSUF – \$13,628 |

RECENT EVENTS AND PRESENTATIONS

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| 2024 | Evolution – Montreal, QC, Canada
The implications of hybridization and rapid diversification in the species delimitation of <i>Petunia</i> [link] |
| 2024 | Botany – Grand Rapids, MI, USA |

Rapid speciation and hybridization contribute to high levels of tree discordance in *Petunia* and related genera

- 2023** BIO-Wallace – Porto Alegre, RS, Brazil
Petunia: um modelo para especiação rápida com fluxo gênico
- 2023** Evolution – Albuquerque, NM, USA
How do novel species arise in a highly endemic biodiversity hotspot? Insights from *Petunia*. [[link](#)]
- 2022** SolSeminars – virtual
The role of hybridization in the diversification of *Petunia* species. [[link](#)]
- 2022** ESEB 2022 – Prague, Czech Republic
Petunia species in the making: consequences of hybridization between two *P. axillaris* subspecies
- 2021** Botany – virtual
A convoluted tale of hybridization between two *Petunia* species

TEACHING EXPERIENCE

- 2024** Guest Lecturer, University of Arkansas
Class: Plant Biology - C4 photosynthesis and cellular respiration
USA- Fayetteville, AR
- 2021** Teaching Assistant, Federal University of Rio Grande do Sul
Class: Introduction to Phylogeography
Brazil - Porto Alegre, RS
- 2020** Teaching Assistant, Federal University of Rio Grande do Sul
Class: Biodiversity
Brazil - Porto Alegre, RS
- 2019** Guest Lecturer, CESUCA University Center
Lecture: Fundamentals of Genetics
Brazil - Cachoeirinha, RS
- 2018** Teaching Assistant, Federal University of Rio Grande do Sul
Class: Invertebrate Zoology II
Brazil - Porto Alegre, RS
- 2018** Teaching Assistant, Federal University of Rio Grande do Sul
Class: Biochemistry II
Brazil - Porto Alegre, RS
- 2017** Teaching Assistant, Federal University of Rio Grande do Sul
Class: Genetics I
Brazil - Porto Alegre, RS

REVIEWER ACTIVITIES

AoB Plants (1) Journal of Evolutionary Biology (1)
Plant Biosystems (1) Journal of Biogeography (1)

OUTREACH ACTIVITIES

2024 PLANTS program, Botanical Society of America
 PLANTS established mentor at BOTANY 2024
 USA - Grand Rapids, MI

2020 School Outreach Project, Pan American School of Porto Alegre.
 Evaluator of scientific projects at the 10th Science Fair
 Brazil - Porto Alegre, RS

LANGUAGE SKILLS

Portuguese: mother tongue

Spanish: B2

English: C2