

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: Hibridação e especiação em *Petunia* e grupos relacionados: uma abordagem filogenômica.

Advisor: Loreta Brandão 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: 79; h-index 4. [[link](#)] **Web of Science:** Citations: 58; h-index 4. [[link](#)]

Published

Soares, B. E., Moura, A. L., Araújo, V. N. D., Azevedo, N. H., Cardoso, A. C. A., Cardoso, M. R., ... & Vidor, C. B., including **Pezzi, P. H.** (2025). The “Conhecimento Brasil” Program neglects the structural problems of Brazilian science and fails to offer a solution to the brain drain. *Anais da Academia Brasileira de Ciências*, 97, e20240496. doi: <https://doi.org/10.1590/0001-3765202520240496>

Gonçalves, L. T., **Pezzi, P. H.**, Montagner F. R. G., Souza W. V., Françoso E., & Deprá M. (2025). The nuclear and mitochondrial genomes of the bellicose bumblebee (*Bombus bellicosus*, Hymenoptera: Apidae), a threatened pollinator in a changing South American landscape. *Genome*, 68, 1-10. <https://doi.org/10.1139/gen-2024-0166>

Giudicelli, G. C.*, **Pezzi, P. H.***, Guzmán-Rodriguez, 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, e2019010. <https://doi.org/10.1590/2358-2936e2019010>

Submitted

- 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.
- Backes, A.*, Gonçalves, L. T.*, **Pezzi, P. H.**, & Freitas, L. B. *submitted*. Phylogenomics reveals taxonomic challenges in *Calibrachoa* (Solanaceae) and sheds light on the evolutionary origins of million bells cultivars. *These authors contributed equally to this work.
- Pezzi, P. H.***, Schnitzler, C. K.*, Giudicelli, G. C., Turchetto, C., Bombarely, A., Bonatto, S., & Freitas, L. B. *submitted*. Population structure and genetic diversity uncover hidden speciation in atypical *Petunia* (Solanaceae) populations. *These authors contributed equally to this work.

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

2025	Arkansas Native Plants Society Spring Meeting – Monticello, AR, USA
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 <i>Petunia</i> and related genera
2023	BIO-Wallace – Porto Alegre, RS, Brazil <i>Petunia</i> : 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 <i>Petunia</i> . [link]
2022	SolSeminars – virtual The role of hybridization in the diversification of <i>Petunia</i> species. [link]
2022	ESEB 2022 – Prague, Czech Republic <i>Petunia</i> species in the making: consequences of hybridization between two <i>P. axillaris</i> subspecies
2021	Botany – virtual A convoluted tale of hybridization between two <i>Petunia</i> 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)	Ecology and Evolution (2)
Plant Biosystems (1)	Journal of Biogeography (1)	Global Ecology and Conservation (1)
Molecular Ecology Resources (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