

# Felipe O. Cerezer

Postdoctoral Researcher



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My research interests primarily falls under the broad fields of macroecology, biogeography, and macroevolution. Specifically, I explore the ways in which historical, evolutionary, and ecological processes contribute to biological patterns, with a particular focus on the latitudinal diversity gradient and coloration patterns. While my primary experience lies in studying mammals, my interests extend beyond specific taxonomic groups, focusing more on the underlying processes.



## Web Profiles

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- [Twitter](#)
- [Google Scholar](#)
- [ResearchGate](#)
- [ORCID](#)



## General Interests

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- Macroecology & Macroevoolution
- Biogeography
- Community ecology
- Ecological theory



## Skills

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- Project management
- Research methodologies
- Interdisciplinary research
- Applied phylogenetic comparative methods in R
- Skilled in QGIS, ArcGIS, and R for GIS



## Work History

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**2023/10 – Current**

### **Postdoctoral Research Fellow**

*Center For Theoretical Study, Charles University - Prague, Czech Republic*

Researcher at the project EXPRO – “The equilibrium theory of biodiversity dynamics - macroecological perspective” (PI David Storch).

**2017/03 – 2023/07**

### **Graduate Student Researcher**

*Federal University of Santa Maria - Rio Grande Do Sul, Brazil*

Performed research related to my Master's and PhD studies.



## Education

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**2019 – 2023**

### **Ph.D.: Animal Biodiversity**

*Federal University of Santa Maria Rio Grande Do Sul, Brazil*

Major: Biology; Concentration: Ecology and Evolution.

PhD dissertation: “The role of evolutionary and ecological processes in species diversity and coloration patterns”.

Research advisor: Dr. Cristian S. Dambros.

Research Co-advisor: Dr. Nilton Carlos Cáceres.

**2017 – 2019**

**Master of Science: Animal Biodiversity**

*Federal University of Santa Maria Rio Grande Do Sul, Brazil*

Major: Biology; Concentration: Ecology and Evolution.

MSc thesis: “Effects of productivity on speciation-extinction dynamics drive the latitudinal diversity gradient of South American small mammals”.

Research advisor: Dr. Cristian S. Dambros.

Research Co-advisor: Dr. Nilton Carlos Cáceres.

**2013 – 2017**

**Bachelor of Science: Biológicas Sciences**

*Federal University of Santa Maria Rio Grande Do Sul, Brazil*

Major: Biology; Concentration: Evolution.

BSc thesis: “Adaptive evolution of facial coloration patterns in didelphid marsupials”.

Research advisor: Dr. Nilton Carlos Cáceres.



## Fellowships & Awards

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### FELLOWSHIPS

- 2023-current: Postdoctoral fellow at Center for Theoretical Studies, Charles University in Prague, Czechia (PI David Storch).
- 2019-2023: PhD Dissertation Scholarship (CAPES).
- 2017-2019: MSc Thesis Scholarship (CAPES).
- 2015-2016: BSc Research Scholarship (PIBIC/CNPq).
- 2014-2015: BSc Research Scholarship (PROBIC/FAPERGS).

### AWARDS

- 2024: Bronze medal for the best poster presentation at the 24th International Biogeography Society Conference.
- 2023: Honorable Mention as recognition for a scientific publication. In: Department of Ecology and Evolution, Federal University of Santa Maria.
- 2022: Honorable Mention as recognition for a scientific publication. In: Department of Ecology and Evolution, Federal University of Santa Maria.

- 2021: Honorable Mention as recognition for a scientific publication. In: Department of Ecology and Evolution, Federal University of Santa Maria.



## Research Publications

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23. **CEREZER, F.O.**; CAMPOS, A.B.; DAMBROS, C.S.; MAESTRI, R.; BUBADUÉ, J.M. & CÁCERES, N.C. Rodents show darker and redder coloration in warm and rainy environments. *Global Ecology and Biogeography*, 33, 2024.
22. **CEREZER, F.O.**; DAMBROS, C.S.; COELHO, M.T.P.; ... & GRAHAM, C. H. Accelerated body size evolution in upland environments is correlated with recent speciation in South American freshwater fishes. *Nature Communications*, 14, 6070, 2023.
21. CASSEMIRO, F.A.; ALBERT, J.S.; ANTONELLI, A.; MENEGOTTO, A.; WÜEST, R.O.; **CEREZER, F. O.**; ... & GRAHAM, C.H. Landscape dynamics and diversification of the megadiverse South American freshwater fish fauna. *Proceedings of the National Academy of Sciences*, 120(2), e2211974120, 2023.
20. STORCK, T.R.; SIPPERT, L.R.; SEBEN, D.; ... **CEREZER, F.O.**; ... & Golombieski, J.I. Intensive fish farming: changes in water quality and relationship with zooplankton community. *Acta Limnologica Brasiliensia*, 35, e28, 2023.
19. FIORILLO, B.F.; FAGGIONI, G.P.; **CEREZER, F.O.**; BECKER, C.G., DÍAZ-RICAURTE, J.C. & MARTINS, M. Effects of environmental factors on the ecology and survival of a widespread, endemic Cerrado frog. *Biotropica*, 55(2), 551-562, 2023.
18. **CEREZER, F.O.**; MACHAC, A.; RANGEL, T.F. & DAMBROS, C.S. Exceptions to the rule: Relative roles of time, diversification rates and regional energy in shaping the inverse latitudinal diversity gradient. *Global Ecology and Biogeography*, 31(9), 1794-1809, 2022.
17. **CEREZER, F.O.**; CÁCERES, N.C. & BASELGA, A. Species richness and beta diversity patterns of American marsupials. In: *American and Australasian Marsupials: an evolutionary, biogeographical, and ecological approach*. Cham: Springer International Publishing, 2022. p. 1-16.
16. CÁCERES, N.; **CEREZER, F.O.** & BUBADUÉ, J. Size reduction and skull shape parallelism following the evolutionary forest-to-savanna transition in Platyrrhini monkeys. *American Journal of Primatology*, v. 84, n. 12, p. e23447, 2022.

15. STORCK, T.R.; DO AMARAL, A.M.B.; DA CRUZ, T.K.T.; DE PELLEGRIN, D.; AMES, J.; **CEREZER, F.O.**; ... & CLASEN, B. Biomarkers' responses in neotropical freshwater fish living in Southern Brazil: agricultural activity or seasonal interference?. *Water, Air, & Soil Pollution*, 233(11), 476, 2022.
14. AMES, J.; MIRAGEM, A.A.; CORDEIRO, M.F.; **CEREZER, F.O.** & LORO, V.L. Effects of glyphosate on zebrafish: a systematic review and meta-analysis. *Ecotoxicology*, 31(8), 1189-1204, 2022.
13. QUADROS, J.; **CEREZER, F.O.** & CÁCERES, N.C. Hair microstructure diversity in neotropical marsupials: roles of phylogenetic signal and adaptation. In: Cáceres, N.C., Dickman, C.R. (eds) *American and Australasian Marsupials*. Springer, Cham, 2022.
12. MELO, G.L.; **CEREZER, F.O.**; SPONCHIADO, J. & CÁCERES, N.C. The role of habitat amount and vegetation density for explaining loss of small-mammal diversity in a South American woodland savanna. *Frontiers in Ecology and Evolution*, 10, 740371, 2022.
11. **CEREZER, F.O.**; CÁCERES, N.C. & DAMBROS, C.S. Effect of Productivity on Community Size Explains the Latitudinal Diversity Gradient of South American Small Mammals. *The American Naturalist*, v. 198, n. 4, p. E111-E121, 2021.
10. **CEREZER, F.O.**; AZEVEDO, R.A.; NASCIMENTO, M.A.S.; FRANKLIN, E.; MORAIS, J.W. & DAMBROS, C.S. Latitudinal gradient of termite diversity indicates higher diversification and narrower thermal niches in the tropics. *Global Ecology and Biogeography*, v. 00, p. 1-11, 2020.
9. **CEREZER, F. O.**; RIBEIRO, J.R.I.; GRAIPEL, M.E. & CÁCERES, N.C. The dark side of colouration: ecogeographical evidence supports Gloger's rule in American marsupials. *Evolution*, v. 74, p. 2046-2058, 2020.
8. AMARAL, A.M.B.; MOURA, L.K.; PELLEGRIN, D.; GUERRA, L.J.; **CEREZER, F.O.**; SAIBT, N.; PRESTES, O.D.; ZANELLA, R.; LORO, V.L. & CLASEN, B. Seasonal factors driving biochemical biomarkers in two fish species from a subtropical reservoir in southern Brazil: An integrated approach. *Environmental Pollution*, v. 00, p. 115168-115168, 2020.
7. CEREZER, C.; MARINS, A.T.; **CEREZER, F.O.**; SEVERO, E.S.; LEITEMPERGER, J.W.; BANDEIRA, N.; ZANELLA, R.; LORO, V.L. & SANTOS, S. Influence of pesticides and abiotic conditions on biochemical biomarkers in *Aegla aff. longirostri* (crustacea, anomura): Implications for conservation. *Ecotoxicology and Environmental Safety*, v. 203, p. 110982, 2020.

6. BUBADUÉ, J.M.; HENDGES, C.D.; CHEREM, J.J.; **CEREZER, F.O.**; FALCONÍ, T.P.; GRAIPEL, M.E. & CÁCERES, N.C. Marsupial versus placental: assessing the evolutionary changes in the scapula of didelphids and sigmodontines. *Biological Journal of the Linnean Society*, v. XX, p. 1, 2019.
5. GRAIPEL, M.E.; BOGONI, J.A.; GIEHL, E.L.H.; **CEREZER, F.O.**; CÁCERES, N.C. & EIZIRIK, E. Melanism evolution in the cat family is influenced by intraspecific communication under low visibility. *PLoS One*, v. 14, p. e0226136, 2019.
4. GONÇALVES, F.B.; BECA, R.S.; ... **CEREZER, F.O.**; ... MILTON, R. & GALETTI, M. ATLANTIC MAMMAL TRAITS: a data set of morphological traits of mammals in the Atlantic Forest of South America. *Ecology*, v. 99, p. 498-498, 2018.
3. BATTISTELLA, T.F.; **CEREZER, F.O.**; BUBADUE, J.M.; MELO, G.L.; GRAIPEL, M.E.; CÁCERES, N.C. Litter size variation in didelphid marsupials: evidence of phylogenetic constraints and adaptation. *Biological Journal of the Linnean Society*, v. 126, p. 40-54, 2018.
2. MACHADO, R.F.; **CEREZER, F.O.**; HENDGES, C.D.; CÁCERES, N.C. Factors affecting the home range size of felids (Mammalia, Carnivora) with emphasis on three American species. *Ecología Austral*, v. 27, p. 232-241, 2017.
1. HENDGES, C.D.; MELO, G.L.; SENRA-GONÇALVES, A.; **CEREZER, F.O.**; CÁCERES, N.C. Landscape attributes as drivers of the geographical variation in density of *Sapajus nigritus* Kerr, 1792, a primate endemic to the Atlantic Forest. *Acta Oecologica*, v. 84, p. 57-63, 2017.



## Professional Service

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- Peer Reviewer: Ecography; Journal of Biogeography; Biological Journal of Linnean Society; Journal of Zoology;



## Evaluation Committee Member

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### **BACHELOR'S THESIS EVALUATION**

- Ricardo Augusto Spillari Ruaro (2023). BSc thesis theme: "Seasonal variation of climatic condition dictates community occupancy patterns of termites in Amazon rainforest."

- Maria Paula Sacol (2023). BSc thesis theme: "Influence of temperature on the distribution of small mammals along a latitudinal gradient in the Atlantic Forest."
- Rafaella Camargo Dutra (2023). BSc thesis theme: "Geographic and allometric variation in mandible shape in two felid species (*Panthera onca* and *Panthera pardus*)."
- Amanda Brasil Campos (2022). BSc thesis theme: "The fur coloration of Neotropical rodents is adaptive for camouflage."
- João Vítor Machado (2022). BSc thesis theme: "Do Australian marsupials adhere to Gloger's rule? An analysis of dorsal coloration versus environment."
- Anderson Rodrigues (2021). BSc thesis theme: "Influence of intraspecific variation in body size on the feeding frequency of herbivorous reef fishes in Curaçao, Caribbean."
- Prianka Santoro Soares da Silva (2021). BSc thesis theme: "Response of termite species and trophic guilds to environmental gradients in central Amazon forests."
- Thaís Borba Pavão (2019). BSc thesis theme: "Effect of forest cover loss on five abundant medium and large-sized mammal species in the Cerrado."
- Vítor Hugo Schünemann Vargas (2019). BSc thesis theme: "Effect of urbanization on the diversity and singing patterns in birds."

### ***THESIS OR DISSERTATION EVALUATION***

- Erivelton Rosário do Nascimento (2023). PhD dissertation theme: "Challenges and new perspectives on patterns of structure and species diversity."



## **Presentations**

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### ***CONFERENCE & SYMPOSIA PRESENTATIONS***

- **CEREZER, F. O.**; DAMBROS, C. S.; CASSEMIRO, F.; COELHO, M. T. P.; BARRETO, E.; WUEST, R.; ALBERT, J.; GRAHAM, C. Dissecting the drivers of diversification in freshwater fishes of South America. In: INTECOL2022, Geneva, Switzerland, 2022.

- **CEREZER, F. O.**; CÁCERES, N. C. Didelphid marsupials follow Gloger's rule?. 2016. In: Integrated Academic Journey, Federal University of Santa Maria.
- **CEREZER, F. O.**; CÁCERES, N. C. Relationship between contrasting facial color and body mass in didelphids: a possible case of aposematism. 2015. In: III Symposium on Animal Biodiversity, Federal University of Santa Maria.

### **POSTER PRESENTATIONS**

- **CEREZER, F. O.**; CAMPOS, A. B.; DAMBROS, C. S.; MAESTRI, R.; BUBADUÉ, J. M. & CÁCERES, N. C. Rodents show darker and redder coloration in warm and rainy environments. In: International Biogeography Society, Prague, 2024.
- **CEREZER, F. O.**; DAMBROS, C. S.; CASSEMIRO, F.; COELHO, M. T. P.; BARRETO, E.; WUEST, R.; ALBERT, J.; GRAHAM, C. Drivers of diversification in freshwater fishes of South America. In: British Ecological Society's Macroecology Special Interest Group Conference, University of Birmingham, UK, 2023.
- **CEREZER, F. O.**; DAMBROS, C. S.; CASSEMIRO, F.; COELHO, M. T. P.; BARRETO, E.; WUEST, R.; ALBERT, J.; GRAHAM, C. Dissecting the drivers of diversification in freshwater fishes of South America. In: Biology22 conference, University of Basel, Switzerland, 2022.
- **CEREZER, F. O.**; MENEGHETTI, J. Potential species richness of small mammals: conservation demands in the Brazilian Pampa. In: I International Congress of the Pampa and III Seminar on Sustainability of the Campanha Region, 2016.
- DRI, G. F.; **CEREZER, F. O.** Potential distribution of *Leopardus geoffroyi* (D'Orbigny & Gervais, 1844) in Conservation Units in the Brazilian Pampa. In: I International Congress of the Pampa and III Seminar on Sustainability of the Campanha Region, 2016.
- FLUCK, I. E.; **CEREZER, F. O.**; HENDGES, C. D.; MELO, G. L.; SENRA GONÇALVES, A.; CÁCERES, N. C. Fragmentation and changes in the matrix influence the spatial variation of the population density of *Sapajus nigritus*. 2016. In: Integrated Academic Journey, Federal University of Santa Maria.
- **CEREZER, F. O.**; MAGNUS, L. Z.; CÁCERES, N. C. Adaptive evolution of uniform coloration in Didelphidae. 2015. In: Integrated Academic Journey, Federal University of Santa Maria.