

CV - Luciano Varela, Ph.D.

Facultad de Ciencias, Universidad de la República, Iguá 4225, Montevideo, Uruguay.

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Education

2023-Dec – **Ph.D.** Biology. Dep. of Paleontology, Universidad de la República (Udelar). Adv: Dr. R.A. Fariña and Dr. E.P. Lessa.

2018-Oct – **M.Sc.** Biology; specialization: Zoology. Universidad de la República (Udelar). Adv: Dr. Fariña and Dr. H.G. McDonald.

2014-Feb – **B.Sc.** (Hons.) Biology; specialization: Paleontology. Universidad de la República (Udelar). Adv: Dr. Fariña.

Academic Employment

2025–ongoing: Postdoctoral Research Fellow. PEDECIBA. CURE Maldonado, Udelar, Uruguay.

2023–2025: Hired Research Associate. Faculty of Sciences, Udelar, Uruguay.

2019–2023: PhD. Research Fellow. Comisión Académica de Posgrado, Udelar, Uruguay.

2016–2018: MSc. Research Fellow. Agencia Nacional de Investigación e Innovación, Uruguay.

Selected Publications (Last 5 years)

Total citations: **655** (First author: **330**; h-index 14 – Google Scholar, Sep 2025)

Number of papers: **18 first-author**, 5 second-author, 15 nth-author; Students directly mentored: #

1. **Varela, L.***, Fariña, R. A. (2025). First ⁸⁷Sr/⁸⁶Sr isotope data for the extinct sloth *Lestodon armatus*: insights into the spatial ecology.... **Proc R Soc B**, 292, 20250309. DOI: [10.1098/rspb.2025.0309](https://doi.org/10.1098/rspb.2025.0309).
2. **Varela, L.***, Batallés, M., Tambusso, P. S., Costoya, G., Fariña, R. A. (2024). The Megafauna3D Educational Environment... **Geosciences**, 14(12), 321. DOI: [10.3390/geosciences14120321](https://doi.org/10.3390/geosciences14120321).
3. **Varela, L.***, Tambusso, P.S., Fariña, R.A. (2024). Femora nutrient foramina and aerobic capacity in giant extinct xenarthrans. **PeerJ**, 12, e17815. DOI: [10.7717/peerj.17815](https://doi.org/10.7717/peerj.17815).
4. **Varela, L.***, Clavijo, L., Tambusso, P.S., Fariña, R.A. (2023). A window into a late Pleistocene megafauna community... **Quat Sci Rev**, 317, 108286. DOI: [10.1016/j.quascirev.2023.108286](https://doi.org/10.1016/j.quascirev.2023.108286).
5. **Varela, L.***, Tambusso, P.S., Zepa, J.M.P., McAfee, R. K., Fariña, R. A. (2023). 3D finite element analysis and geometric morphometrics of sloths (Xenarthra, Folivora)... **J South Am Earth Sci**, 104445. DOI: [10.1016/j.jsames.2023.104445](https://doi.org/10.1016/j.jsames.2023.104445).
6. **Varela, L.***, Tambusso, P.S., McDonald, H.G., Vezzosi, R.I., Fariña, R.A. (2023). Occurrence of the ground sloth *Nothrotheriops* (Xenarthra, Folivora) in the Late Pleistocene of Uruguay: new information on its dietary and habitat preferences based on stable isotope analysis. **J Mamm Evol**, 1-16. DOI: [10.1007/s10914-023-09660-w](https://doi.org/10.1007/s10914-023-09660-w).
7. Baleka, S., **Varela, L. (Shared first authorship)**, Tambusso, P.S., Pajmans, J.L., Mothé, D., Stafford, T.W., Fariña, R.A., Hofreiter, M. (2022). Revisiting proboscidean phylogeny and evolution through total evidence and palaeogenetic analyses including *Notiomastodon* ancient DNA. **IScience**, 25(1). DOI: [10.1016/j.isci.2021.103559](https://doi.org/10.1016/j.isci.2021.103559).
8. **Varela, L.***, McDonald, H. G., Fariña, R.A. (2022). Sexual dimorphism in the fossil ground sloth *Lestodon armatus* (Xenarthra, Folivora). **Hist Biol**, 34(3), 525-537. DOI: [10.1080/08912963.2021.1933470](https://doi.org/10.1080/08912963.2021.1933470).
9. #Lobato, C., **Varela, L.**, Tambusso, P.S., Miño-Boilini, Á.R., Clavijo, L., Fariña, R.A. (2021). Presence of the ground sloth *Valgipes bucklandi* (Xenarthra, Folivora, Scelidotheriinae) in southern Uruguay during the Late Pleistocene: Ecological and biogeographical implications. **Quat Inter**, 601, 104-115. DOI: [10.1016/j.quaint.2021.06.011](https://doi.org/10.1016/j.quaint.2021.06.011).
10. **Varela, L.***, Tambusso, P.S., McDonald, H.G., Fariña, R.A. (2019). Phylogeny, macroevolutionary trends and historical biogeography of sloths.... **Syst Biol**, Volume 68, Issue 2, March 2019, Pages 204–218, DOI: [10.1093/sysbio/syy058](https://doi.org/10.1093/sysbio/syy058).

Book Chapters

1. Fariña, R.A., Beri, Á., **Varela, L.** (2023). Biological Diversity in Deep Time. In Encyclopedia of Biodiversity, 3rd Edition. Elsevier Science. DOI: [10.1016/B978-0-12-822562-2.00253-X](https://doi.org/10.1016/B978-0-12-822562-2.00253-X)

Open Research Data

1. **Varela, L.***, Tambusso, P. S., Batallés, M., Costoya, G., Fariña, R. A. (2025). The Megafauna3D dataset: 3D models of Late Pleistocene megafauna fossils from Uruguay. **J. of Open Archaeology Data**, 13, 1-7. DOI: [10.5334/joad.141](https://doi.org/10.5334/joad.141).
2. **Varela, L.***, Tambusso, P.S., Batallés, M., Costoya, G., Fariña, R.A. (2025). Megafauna3D: Late Pleistocene megafauna fossils from Uruguay [Data set]. MorphoSource ID: [000670061](https://morphosource.org/000670061).
3. Brewer, P., Burton, K., Lister, A., Scott-Murray, A., Pullar, J., Steel, L., Keeble, E., Fariña, R.A. Tambusso, P.S., **Varela, L.**, Muyano, M. (2018). Darwin's Fossil Mammals [Data set]. NHM. DOI: [10.5519/0086786](https://doi.org/10.5519/0086786).

Scholarships and Grants Awarded as PI

2025: **Elio García-Austt Award to the Best PhD Thesis**. PEDECIBA Biología, Uruguay.
2024: **Short-Term Research Stay**. Muséum national d'Histoire naturelle. Paris.
2023: **Short-Term Fellowship**. Smithsonian Tropical Research Institute. \$ 4100
2023: **CE Grant Mod. II**. "Evaluating hypotheses on megafaunal extinction: an approach using ecological niche models and life history simulations". Agencia Nacional de Innovación e Investigación, Uruguay. \$ 27000
2023: **International Mobility Research Fellowship**. IAI and PAGES. \$ 3300
2021: **Student Research Grant**. Paleontological Society. \$ 1200
2021: **Graduate Student Research Award (GSRA)**. Society of Systematic Biologists. \$ 1000
2019: **Sepkoski Grant (PalSIRP)**. Paleontological Society. \$ 1000

Participation in International Projects

2021-2025: "Scientific Collections on the Move". PIs: Dr. N. Richard, I. Podgorny. EU's Horizon 2020, MSC Actions. [Link](#).
2017-2019: "Digitising Darwin's Fossil Mammals". PIs: Dr. P. Brewer, Dr. A. Lister. Natural History Museum (UK). [Link](#).

Teaching and Mentoring

Ongoing - Mauro Russomagno. BSc. (Hons.) Biology, Specialization Paleontology. Universidad de la República. Advisor
2022 - Carolina Lobato. BSc. (Hons.) Biology, Specialization Paleontology. Universidad de la República. Advisor
2014–Ongoing. Teaching Assistant, Paleontology Undergraduate Course. Faculty of Sciences, Universidad de la República.

Service

- Member of Editorial Board of *Discover Ecology*, Springer Nature (2025).
- Member of the proposal for declaring the Arroyo del Vizcaíno site and collection as National Historic Monument by the National Cultural Heritage Commission, Uruguay. Approved in 2021.
- Member of the organizing committee of the 5th Latin American Congress of Vertebrate Paleontology. Uruguay. 2015.

Science Communication and Outreach

- Minecraft Education Edition Fossil Megafauna Excavation World, CEIBAL, Uruguay. (2024). [Link](#)
 - NetLogo - Paleo Ecosystems Simulations for Ecology and Evolution Education. (2024). [Link](#)
 - Open educational guides about Paleontology, Ecology, and Evolution. (2024). [Link](#)
 - Inclusive educational resources for deaf people, developed with Centro de Desarrollo Accesible, ANEP. 2023. [Link](#)
 - Sci. Comm. Publication: **Varela, L. ***, Batallés, M., Tambusso, P.S., Fariña, R.A., (2023). The strange megafauna that roamed the Earth until 12000 years ago. **Frontiers for Young Minds**, 12. DOI: [10.3389/frym.2024.1225865](https://doi.org/10.3389/frym.2024.1225865)
 - Science outreach book: Batallés, M., Costoya, G., **Varela, L.**, Tambusso, P.S., Di Giacomo, M., Fariña, R.A. (2022). Megafauna 3D. Un libro de huesos. ISBN: 978-9915-41-026-5. [Link](#)
 - Augmented Reality web app used for Megafauna 3D. Un libro de huesos. (2022) [GitHub](#)
 - Science outreach eBooks: Batallés, M., **Varela, L.**, Tambusso, P.S., Di Giacomo, M., Fariña, R.A. (2021). Megafauna en el Arroyo del Vizcaíno. ISBN: 978-9915-40-572-8. [Link](#)
 - Lead role in the digitization of fossil specimens and sites at UdelaR Paleobiology Lab. sketchfab.com/PaleoBioLAB
 - Lead Development Team Member in the science outreach project "Megafauna 3D." megafauna3d.org
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