curriculum vitæ of

Murillo F. Rodrigues

PhD Candidate · Institute of Ecology and Evolution · University of Oregon

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Education

2018 – present **Ph.D.** in Biology — University of Oregon, United States

Provisional dissertation title: "Simulation-based inference in population genetics: tools, methods and applications". Expected to defend by January 2024.

2016 – 2018 **M.Sc.** in Genetics and Evolutionary Biology — Universidade de São Paulo, Brasil

Thesis title: "Adaptive or neutral clines? Integrating genome-wide clinal and seasonal variation to infer natural selection in Drosophila melanogaster".

2012 – 2015 **B.Sc.** in Biology — Universidade de São Paulo, Brasil

Thesis title: "Diversity and phylogenetic positioning of freshwater lineages of *Rhinebotrhium* Linton, 1890 from Lake Maracaibo and Orinoco basin, Venezuela".

Publications

[1] **Rodrigues, M. F.**, Kern, A. D., Ralph, P. L. "Shared evolutionary processes shape landscapes of genomic variation in the great apes". In: *bioRxiv* (2023), pp. 2023–02.

[2] Baumdicker, F., Bisschop, G., Goldstein, D., Gower, G., Ragsdale, A. P., Tsambos, G., Zhu, S., Eldon, B., Ellerman, E. C., Galloway, J. G. et al. "Efficient ancestry and mutation simulation with msprime 1.0". In: *Genetics* 220.3 (2022), iyab229.

[3] Lauterbur, M. E., Cavassim, M. I. A., Gladstein, A. L., Gower, G., Pope, N. S., Tsambos, G., Adrion, J., Belsare, S., Biddanda, A., Caudill, V. et al. "Expanding the stdpopsim species catalog, and lessons learned for realistic genome simulations". In: *BioRxiv* (2022), pp. 2022–10.

[4] Estevez-Castro, C. F., **Rodrigues, M. F.**, Babarit, A., Ferreira, F. V., Marois, E., Cogni, R., Marques, J. T., Olmo, R. P. "The origin and evolution of loqs2: a gene encoding an antiviral dsRNA binding protein in Aedes mosquitoes". In: *bioRxiv* (2021), pp. 2021–12.

[5] **Rodrigues, M. F.**, Cogni, R. "Genomic Responses to Climate Change: Making the Most of the Drosophila Model". In: *Frontiers in Genetics* 12 (2021), p. 676218.

[6] **Rodrigues, M. F.**, Vibranovski, M. D., Cogni, R. "Clinal and seasonal changes are correlated in Drosophila melanogaster natural populations". In: *Evolution* 75.8 (2021), pp. 2042–2054.

[7] Stankowski, S., Chase, M. A., Fuiten, A. M., **Rodrigues, M. F.**, Ralph, P. L., Streisfeld, M. A. "Widespread selection and gene flow shape the genomic landscape during a radiation of monkeyflowers". In: *PLoS biology* 17.7 (2019), e3000391.

Scholarships and Awards

2022 – 2023	Harvey E Lee Graduate Scholarship	University of Oregon
2022 – 2023	Marthe E. Smith Memorial Science Scholarship	CAS, University of Oregon
2019 – 2020	Hill Fund Award	CAS, University of Oregon
2019 – 2021	Genetics Training Grant	CAS, University of Oregon
2017 – 2018	Research Internship Abroad Fellowship	The São Paulo Research Foundation
2016 – 2018	Master's Fellowship	The São Paulo Research Foundation
2013 – 2014	Undergraduate Research Fellowship	The São Paulo Research Foundation

Skills

Coding: R, Python, Bash, C++
Computing: HPC, SLURM, Snakemake, git
Bioinformatics: Genomics, Transcriptomics
Statistics: Parametric statistics, Bayesian, Simulation-based inference, Machine Learning

Research Experience

2018 – present **PhD student** — University of Oregon, United States

Advised by Drs Andrew Kern and Peter Ralph.

2017 – 2018 **Visiting researcher** — University of Wisconsin, United States

Advised by Dr. John Pool.

2016 – 2018 **Master's student** Universidade de São Paulo, Brasil

Advised by Drs. Rodrigo Cogni and Maria Vibranovski.

2013 – 2014 **Undergraduate Researcher** Universidade de São Paulo, Brasil

Advised by Dr. Fernando Portella de Luna Marques.

Teaching

Sep. 2018 – present **Ph.D.** in Biology University of Oregon, United States

Provisional dissertation title: "Simulation-based inference in population genetics: tools, methods and applications". Expected to defend by January 2024.

Jan. 2016 – Aug. 2018 **M.Sc.** in Genetics and Evolutionary Biology Universidade de São Paulo, Brasil

Thesis title: "Adaptive or neutral clines? Integrating genome-wide clinal and seasonal variation to infer natural selection in Drosophila melanogaster".

Mar. 2012 – Dec. 2015 **B.Sc.** in Biology Universidade de São Paulo, Brasil

Thesis title: "Diversity and phylogenetic positioning of freshwater lineages of *Rhinebotrhium* Linton, 1890 from Lake Maracaibo and Orinoco basin, Venezuela".

Presentations and posters

Conference and Journal Publications

1. **Promotheus Fire**[†], Zeus[†], Hera, Poseidon, Artemis. Why Titans are better than Gods but Gods are also not that bad. In *Proceedings of the 1st Conference on Myths in the Universe.*

2. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris.

Workshop Publications

3. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo.

Mentorship

Strong knowledge of the programming language `olymp`[1] with a focus on high-performance generation of Gods.
Working knowledge in `thor`, `iliad` (e.g. `homer.il`), and Θ++.

Academic Service

Organiser

Humanity

Made them from clay. Also gave them civilization.

Reviewing

Conferences

Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa.

[1] Example project: Zeus