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Research Interests: I am interested in the origin and maintenance of invertebrate diversity, with marine gastropods as my main study system. My research is based on fieldwork and museum collections, comprising phylogenomics, biogeography, population and evolutionary genomics.

EDUCATION

- 2019 Ph.D. in Organismic & Evolutionary Biology**, Harvard University
Advisor: Gonzalo Giribet
Thesis: Gastropod phylogeny, biogeography and shell shape evolution
- 2012 Teacher Licensure in Biological Sciences**, University of Sao Paulo, Brazil
- 2011 B.Sc. in Biological Sciences**, University of Sao Paulo
Advisor: Paulo Yukio Gomes Sumida
Thesis: Diversity, temporal and spatial distribution of macrofaunal communities associated with seaweed in the Abrolhos Bank, Brazil

APPOINTMENTS

- 2020- Smithsonian Institution Postdoctoral Fellow**, Smithsonian Tropical Research Institute
Supervisor: Rachel Collin
Project: The predictive power of life history strategies in the dispersal capacity of marine gastropods
- 2020- Associate of the Dept. Organismic & Evolutionary Biology**, Harvard University
- 2019 Postdoctoral Fellow**, Harvard University
Supervisor: Gonzalo Giribet
Project: Ecdysozoan genomes

PUBLICATIONS

1. Moles J, **Cunha TJ**, Lemer S, Combosch D, Giribet G. 2021. Tightening the girdle: Phylotranscriptomics of Polyplacophora. *Journal of Molluscan Studies* (in press).
2. **Cunha TJ**, Giribet G. 2019 A congruent topology for deep gastropod relationships. *Proceedings of the Royal Society B* 20182776. <http://dx.doi.org/10.1098/rspb.2018.2776>
3. **Cunha TJ**, Lemer S, Bouchet P, Kano Y, Giribet G. 2019 Putting keyhole limpets on the map: phylogeny and biogeography of the globally distributed marine family Fissurellidae (Vetigastropoda, Mollusca). *Molecular Phylogenetics and Evolution* 135: 249-269. <https://doi.org/10.1016/j.ympev.2019.02.008>
4. **Cunha TJ**, Güth AZ, Bromberg S, Sumida PYG. 2013 Macrofauna associated with the brown algae *Dictyota* spp. (Phaeophyceae, Dictyotaceae) in the Sebastião Gomes Reef and Abrolhos Archipelago, Bahia, Brazil. *Continental Shelf Research* 70: 140-149. <http://dx.doi.org/10.1016/j.csr.2013.09.001>

In Review

5. **Cunha TJ**, Reimer JD, Giribet G. Investigating sources of conflict in deep phylogenomics of vetigastropod snails. *In review: Systematic Biology*.

6. Ballesteros JA, Santibáñez-López CE, Baker CM, Benavides LR, **Cunha TJ**, Gainett G, Ontano AZ, Setton EVW, Arango CP, Gavish-Regev E, Harvey MS, Wheeler WC, Hormiga G, Giribet G, Sharma PP. Reconciling genomics and fossils evinces a new scenario of chelicerate terrestrialisation. *In review: Nature Ecology and Evolution*.
7. **Cunha TJ**, de Medeiros BAS. Systematics in the Era of Phylogenomics. In *Phylogenetic Systematics* (Ed. Beneti J, Miranda G, Dias P, Montesinos R) (textbook in Portuguese).

FUNDING AND AWARDS

Fellowships

- 2019** Smithsonian Institution Postdoctoral Fellowship, STRI (2 years)
- 2019** Postdoctoral position on speciation genomics of *Littorina* snails with the University of Gothenburg and The University of Sheffield (2 years, declined)
- 2018** Faculty for the Future Fellowship, Schlumberger Foundation (1 year)
- 2017** Merit Fellowship, Graduate Society Research Fellowships, Harvard GSAS (1 semester)
- 2013** Science without Borders Fellowship, CAPES/CNPq, Brazil (full doctorate, declined)
- 2012 & 2010** Undergraduate Fellowship, FAPESP, Brazil (1 year each)

Research Grants

- 2020** Global Genome Initiative Rolling Grant, Smithsonian Institution (\$ 10,000)
- 2017** Doctoral Dissertation Improvement Grant, National Science Foundation (\$ 21,970)
- 2016** Putnam Expedition Grant, Museum of Comparative Zoology (\$ 8,475)
- 2015** Graduate Student Research Award, Society of Systematic Biologists (\$ 1,500)

Other Awards

- 2019** Certificate of Latin American Studies, David Rockefeller Center for Latin American Studies
- 2017, 2016 & 2015** Certificate of Distinction in Teaching, Derek Bok Center, Harvard

PRESENTATIONS

Invited Symposium Talks

- 2020** **XI Congreso Latinoamericano de Malacología (CLAMA)**
Datos genómicos para la filogenia de gasterópodos (delivered in Spanish)
<https://www.facebook.com/VirtualClama/videos/1092747487850777?t=7769>
- 2020** **Systematics, Biogeography and Evolution meeting (SBE)**
Congruence and conflict in phylogenomics: <https://youtu.be/B7AUrtVMjpw?t=3097>

Invited Departmental Seminars

- 2020** **STRI Science Talks**, Smithsonian Tropical Research Institute
Gastropod phylogenomics and biogeography across 400 million years:
<https://youtu.be/Hs9izA3q5Cw>
- 2020** **Naos Science Coffee**, Smithsonian Tropical Research Institute
Phylogenomics and biogeography of marine snails
- 2019** **EcoEncontros**, University of Sao Paulo, Brazil
Biogeography and evolution of the shell in marine snails
- 2019** **Biofórum**, State University of Campinas, Brazil
Biogeography and evolution of the shell in marine snails
- 2017** **G4 Symposium**, Harvard University
Spiraling down the gastropod phylogeny

Selected Recent Conferences

- 2021 Society for Integrative and Comparative Biology meeting (SICB)**
Population connectivity of a threatened gastropod across the Mediterranean (talk)
- 2019 World Congress of Malacology (WCM)**, Pacific Grove, CA
A congruent topology for deep gastropod relationships (talk)
Shells of vetigastropod snails became shorter and wider in the late Mesozoic and early Cenozoic eras (poster)
- 2019 Evolution meeting**, Providence, RI
Shells of vetigastropod snails became shorter and wider in the late Mesozoic and early Cenozoic eras (poster)
- 2018 Global Invertebrate Genomics Alliance (GIGA III)**, Curaçao
Resolving deep nodes in the gastropod phylogeny (talk)
- 2016 World Congress of Malacology (WCM)**, Penang, Malaysia
Systematics of the diverse and global gastropod family Fissurellidae (Vetigastropoda) in a time-calibrated phylogeny (talk)
- 2015 Evolution meeting**, Guarujá, SP, Brazil
Systematics of a diverse and global clade of vetigastropods, the keyhole and slit limpets (Fissurellidae, Gastropoda, Mollusca) (poster)

FIELDWORK AND COLLECTIONS

Fieldwork

- 2020-21 Panama:** sampling of intertidal gastropods throughout the Pacific Coast
- 2019 Maldives**, Magoodhoo Island: sampling of heterobranch slugs and snails (snorkeling and scuba diving)
- 2016 Japan**, Okinawa: sampling of gastropods around the island (intertidal and scuba diving)
- 2015,16 Panama**, Bocas del Toro: sampling of marine invertebrates during the fieldtrip of the invertebrate course at Harvard University (Teaching Assistant)
- 2014 Dominican Republic:** sampling of intertidal fissurellid limpets
- 2011 Brazil**, Paraíba: sampling of intertidal polychaetes
- 2011 Brazil**, Hydrographic Ship 'Sirius' of the Brazilian Navy: characterization of pockmarks with a multibeam echosounder along the Brazilian South-Southeast coasts

Collections Visited

- 2013-19** Museum of Comparative Zoology (MCZ), Malacology & Invertebrate Paleontology
- 2018** Muséum national d'Histoire naturelle (MNHN), Invertebrate Paleontology
- 2018** The Natural History Museum (NHM), Invertebrate Paleontology
- 2018** Oxford University Museum of Natural History (OUMNH), Invertebrate Paleontology
- 2015** Muséum national d'Histoire naturelle (MNHN), Malacology
- 2014** Museum of Zoology of the University of Sao Paulo (MZSP), Malacology

TEACHING AND MENTORING

Instructor

- 2021** Data analyses and visualization in R for beginners, XXVII Encontro Brasileiro de Malacologia. 20 students. I am designing and running this live-coding workshop for the upcoming Brazilian Malacology Meeting in October.

2020 Introduction to R, Smithsonian Tropical Research Institute. 50 students. I designed and ran this workshop together with other fellows at STRI, and led the class on data visualization. https://tauanacunha.com/courses/2020_stri_intror

Teaching Assistant

Responsibilities: developing new lab and class materials, leading class discussions, running labs, grading assignments, and meeting with students individually.

*Teaching award received

2018 Invertebrate Zoology, Harvard Extension School (hybrid in person and online)
2017* Phylogenetics and Phylogeography in the Era of Genomics, Harvard University
2016* Biology & Evolution of Invertebrate Animals, Harvard University, [Lab Instructor](#)
2015* Biology & Evolution of Invertebrate Animals, Harvard University, [Lab Instructor](#)
2013 R Software in the Analysis of Ecological Data, University of Sao Paulo
2010 Invertebrates, University of Sao Paulo
2008 Biological Diversity and Phylogeny, University of Sao Paulo

Invited Lectures

2021 Lecture on Gastropoda. Metazoa II, Federal University of Paraná, Brazil
2016 Lecture on Mollusca and Nemertea. Biology & Evolution of Invertebrate Animals, Harvard University

Pedagogical Training

2021 Certified Instructor by The Carpentries (<https://carpentries.org/>). Software, Data, and Library Carpentry are programs of The Carpentries (a fiscally sponsored project of Community Initiatives). The Carpentries Instructors are volunteers who teach foundational computational and data skills, e.g. programming basics in R, use of the command line, and version control.
2016 Mentoring Workshop, Life Sciences Education Office, Harvard University
2014 Derek Bok Center Fall Teaching Conference, Harvard University

Mentoring

2020- Committee member: PhD student (Marcos de Vasconcellos Gernet), Federal University of Paraná, Brazil: Systematics, biogeography and evolution of the genus *Mirinaba* Morretes, 1952 (Gastropoda: Eupulmonata: Strophocheilidae)
2019- Co-advisor: Undergraduate student (Brunno Henryco Borges Alves), Federal Institute of Education, Science and Technology of Piauí, Brazil: Biogeography of freshwater mollusks of the Americas
2019 Co-advisor: NSF REU program (Macy Petrula), California State University, Sacramento: Identification of marine snails and slugs from the Maldives with COI barcoding
2017 Mentor: High school student (Jesse Leon Guerrero), Cambridge Rindge and Latin School in the Marine Science Internship Program at Harvard, Cambridge MA

OUTREACH

2020 Contributor to the PhyloPic database of organisms silhouettes (<http://phylopic.org/>), creating original gastropod silhouettes for use under a Public Domain license

- 2020** Featured in the Harvard Museums of Science and Culture *Connects! Families* newsletter about career and research with shells. Shorter highlight on Instagram: <https://www.instagram.com/p/CEMiPL8FU3Q/>
- 2019** Invited talk for the Boston Malacological Club: Evolution of gastropods in space and time
- 2016** Blog writer for Science in the News. Were the first animals sponge-like? Complexity in the animal tree of life. <http://tinyurl.com/AnimalTree>
- 2016** Boston Malacological Club member (2016-19); Social Media committee (2017-19)
- 2016** Science tour to 9th grade girls from Winsor, an all-girls school in Boston, MA
- 2014** Blog writer for EvoBites. Untangling the spider's web. <http://tinyurl.com/EvoSpiderWeb>
- 2014** Blog writer for Science in the News. Origins of Eukaryotes: Who are our closest relatives? <http://tinyurl.com/EvoEukaryotes>
- 2012** Biology guide to elementary school groups visiting caves, mangroves etc, Brazil
- 2009** Snorkeling guide at rocky shores to the public visiting the Ilha Anchieta State Park, NGO Ecosteiros, Environmental Education in Coastal Ecosystems, Brazil

SERVICE

Society Service

2019-2025 Council member, Unitas Malacologica

Professional Memberships

- 2015- Society of Systematic Biologists (SSB)
2016- Unitas Malacologica
2018- Society for the Study of Evolution (SSE)

Reviewer

Systematic Biology, Genome Biology and Evolution, Molecular Phylogenetics and Evolution, Marine Biology, Organisms Diversity and Evolution

ADDITIONAL PROFESSIONAL TRAINING

- 2020** NSF Workshop for Early Career Researchers with NSF Program Directors, ECR²
- 2020** ArcGIS StoryMaps, Esri the Science of Where, Smithsonian Institution
- 2018** Bioinformatic tools for population genomics data, University of Gothenburg, Sven Lovén Centre for Marine Sciences / Tjärnö Marine Laboratory