

Dr. Jonathan Wanderley Lawley

CONTACT INFORMATION

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SUMMARY

As an evolutionary biologist interested in marine invertebrates, my research integrates omics tools, morphological analyses, and field- and lab-based experimental investigations to shed light on the evolution and diversity of these amazing organisms. My experience also involves teaching and outreach in various formal and informal settings, reviewing and editing academic texts, as well as programming and bioinformatics.

APPOINTMENTS

Griffith University

Research Fellow, Molecular Biology and Bioinformatics 2023
Centre for Planetary Health and Food Security

EDUCATION

Griffith University

Ph.D. 2023

- Thesis: What makes blue jellyfish, blue? Integrating chemistry and genetics to unravel colour variation in jellyfish

Universidade de São Paulo

M.Sc., Zoology 2018

- Dissertation: Delimitation and description of cryptic species: lessons from the systematics of *Aurelia* (Cnidaria, Scyphozoa)

Universidade Federal de Santa Catarina

B.Sc., Biological Sciences (Honours) and Teaching Degree 2016

- Honours: Ecological succession of the benthic sessile community in harbour regions on the coast of Santa Catarina, Brazil
- Exchange programs at the University of Maryland, USA (2011) and Monash University, Australia (2014)

PEER-REVIEWED PUBLICATIONS

Pitt KA, Lawley JW, Hinchliffe C, Matis PA, Olguín-Jacobson C, Arafah-Dalmau N, Lindholm P, Arnold J, Suthers IM. 2023. Assemblages of pelagic thaliaceans in oceanographic features at the tropical-temperate transition zone of a western boundary current. *Journal of Plankton Research* fbad024: 1-16. doi:[10.1093/plankt/fbad024](https://doi.org/10.1093/plankt/fbad024)

Lawley JW, Gamero-Mora E, Maronna MM, Chiaverano LM, Stampar SN, Hopcroft RR, Collins AG, Morandini AC. 2022. Morphology is not always useful for diagnosis, and that's ok: Species hypotheses should not be bound to a class of data. Reply to Brown and Gibbons. *South African Journal of Science* 118(9/10): 1-3. doi:[10.17159/sajs.2022/14495](https://doi.org/10.17159/sajs.2022/14495)

Page TM, Lawley JW.* 2022. The Next Generation Is Here: A Review of Transcriptomic Approaches in Marine Ecology. *Frontiers in Marine Science* 9:757921. doi:[10.3389/fmars.2022.757921](https://doi.org/10.3389/fmars.2022.757921)

Lawley JW, Carroll AR, McDougall C. 2021. Rhizostomins: A Novel Pigment Family From Rhizostome Jellyfish (Cnidaria, Scyphozoa). *Frontiers in Marine Science* 8:752949. doi:[10.3389/fmars.2021.752949](https://doi.org/10.3389/fmars.2021.752949)

Lawley JW, Gamero-Mora E, Maronna MM, Chiaverano LM, Stampar SN, Hopcroft RR, Collins AG, Morandini AC. 2021. The importance of molecular characters when morphological variability hinders diagnosability: systematics of the moon jellyfish genus *Aurelia* (Cnidaria: Scyphozoa). *PeerJ* 9:e11954. doi:[10.7717/peerj.11954](https://doi.org/10.7717/peerj.11954)

Miglietta MP, Piraino S, Pruski S, Alpizar Gonzalez M, Castellanos-Iglesias S, Jeronimo-Aguilar S, Lawley JW, Maggioni D, Martell L, Matsumoto Y, Moncada A, Nagale P, Phongphattarawat S, Sheridan C, Soto Angel JJ, Sukhoputova A, Collin R. 2018. An integrative identification guide to the Hydrozoa (Cnidaria) of Bocas del Toro, Panama. *Neotropical Biodiversity* 4(1): 102–112. doi:[10.1080/23766808.2018.1488656](https://doi.org/10.1080/23766808.2018.1488656)

Lawley JW, Fonseca AC, Faria Júnior E, Lindner A. 2018. Occurrence of the non-indigenous brittle star *Ophiethela* cf. *mirabilis* Verrill, 1867 (Echinodermata, Ophiuroidea) in natural and anthropogenic habitats off Santa Catarina, Brazil. *Check List* 14(2): 453–459. doi:[10.15560/14.2.453](https://doi.org/10.15560/14.2.453)

Lawley JW, Faria Júnior E. 2018. First record of association between *Tamoya haplonema* (Cnidaria: Cubozoa) and stromateid fish, with a review on interactions between fish and cubozoan jellyfishes. *Plankton and Benthos Research* 13: 32–38. doi:[10.3800/pbr.13.32](https://doi.org/10.3800/pbr.13.32)

Lawley JW, Ames CL, Bentlage B, Yanagihara A, Goodwill R, Kayal E, Hurwitz K, Collins AG. 2016. Box jellyfish *Alatina alata* has a circumtropical distribution. *Biological Bulletin* 231(2):152–169. doi:[10.1086/690095](https://doi.org/10.1086/690095)

Lindner A (ed.), Oliveira AFS, Freire AS, Batista AA, Gregoletto BF, Girardis BW, Faria Júnior E, Longo GO, Lawley JW, Fontoura L, Santos MEA, et al.. 2014. Vida Marinha de Santa Catarina. Editora da UFSC 1st ed. 128 p. (2nd ed., 2016). ISBN:[978-85-328-0780-9](https://doi.org/10.978-85-328-0780-9)

*Equal authorship

WORKING PAPERS

Pigments in jellyfish (Cnidaria, Medusozoa) with Jamileh Javidpour, Anthony R. Carroll, Carmel McDougall and Kylie A. Pitt

Wnt-mediated morphogenesis is involved in rhizostomin pigment expression with Kylie A. Pitt, Anthony R. Carroll and Carmel McDougall

Macroevolutionary trends in Acraspeda (Cnidaria: Medusozoa) cnidae with Maximiliano M. Maronna (first author) et al.

CONFERENCE PRESENTATIONS	Australian Bioinformatics and Computational Biology Society	2023
	International Plant and Animal Genome Conference	2023
	Galaxy Community Conference	2023
	Australian Marine Sciences Association	2023, 2022, 2021
	Evolution	2021
	Biodiversity Genomics	2020
	International Conference for Young Marine Researchers	2020
	International Jellyfish Bloom Symposium	2023, 2019, 2013
	International Cassiopea Workshop	2018
	Brazilian Zoology Conference	2018
	Brazilian Marine Biology Conference	2013, 2011
	Brazilian Genetics Conference	2012
	Latin American Marine Sciences Conference	2011
RESEARCH INTERESTS	Systematics (and taxonomy), molecular biology, developmental biology (and evo-devo), omics, bioinformatics, biogeography, macroevolution	
RESEARCH FUNDING	CPHFS Strategic Leverage Fund, \$AUD 10,000	2023
	<ul style="list-style-type: none"> Developing advanced diagnostic tools for QX disease in oyster aquaculture (lead investigator) 	
	Sunshine Coast Council, \$AUD 12,000	2023
	<ul style="list-style-type: none"> Improving jellyfish monitoring and identification to enhance beach safety on the Sunshine Coast (lead investigator) 	
AWARDS AND FELLOWSHIPS	Top-Ten Marine Species (WoRMS)	2021
	3MT Competition – 3 rd Place (Griffith Sciences)	2021
	Young Science Ambassador Award (Wonder of Science)	2020
	Griffith University Postgraduate Research Scholarships	2019
	Research Internship Abroad Fellowship (FAPESP – Brazil)	2017
	Masters Research Fellowship (FAPESP – Brazil)	2016
	Science Without Borders Fellowship (CNPq – Brazil)	2014
	Honours Research Fellowship (CNPq – Brazil)	2013
TEACHING EXPERIENCE	Griffith University	
		Instructor
	<ul style="list-style-type: none"> Molecular Biology 	2023
	<ul style="list-style-type: none"> Introduction to Social Science (Environmental Sustainability) 	2023
		Teaching Assistant
	<ul style="list-style-type: none"> Introduction to Marine Science 	2023, 2022, 2021, 2020
	<ul style="list-style-type: none"> Ecology 	2020
	<ul style="list-style-type: none"> Zoology 	2020
	<ul style="list-style-type: none"> Biological Systems 	2023, 2022, 2021, 2020
	<ul style="list-style-type: none"> Marine Conservation and Resource Management 	2019

Universidade de São Paulo

Instructor

- Summer Course in Zoology 2018, 2017
Systematics and Diversity of Medusozoa, Historical Biogeography, Introduction to Biostatistics, Introduction to Phylogenetic Systematics, Molecular Biology Applied to Zoology

Teaching Assistant

- Principles of Systematics and Biogeography 2017

Universidade Federal de Santa Catarina

Teaching Assistant

- Invertebrate Zoology I 2013
- Biostatistics 2013
- Community Ecology 2012

SUPERVISION Effects of ultraviolet B radiation on medusae of *Cassiopea* sp. 2023
Tanisha McBratney (Honours)

TECHNICAL SKILLS Field and laboratory experiments (animal collection and husbandry, measurement and monitoring of coastal and oceanographic features); Analytical chemistry procedures (protein extraction, purification and sequencing); Molecular biology techniques (DNA and RNA extractions, library preparation and sequencing); Bioinformatics and statistical computing (R, Python, Bash, Git and High Performance Computing); GIS (QGIS, ArcGIS and R)

CERTIFICATIONS **PADI**

- Open Water Scuba Instructor 2015
- Nitrox Instructor 2015

PROFESSIONAL EXPERIENCE **Universidade Federal de Santa Catarina – MAArE Project**

- **Research Support:** Environmental monitoring of benthic exotic and invasive species (2015-2016)

Operation Wallacea

- **Marine Survey Leader:** Engaging high school and university students in seagrass monitoring in the Greek Islands (2016)

SERVICE **Event Organisation**

- Summer Course in Zoology, Universidade de São Paulo (2017, 2018)
- Australian Marine Sciences Association Conference (2023)

Conference Session Organisation

- The next generation is here: genomic approaches in marine science – International Conference for Young Marine Researchers (2020)

Departmental Service

- HDR Student Representative, Griffith University Australian Rivers Institute (2020)
- Committee Member, Australian Marine Sciences Association – South East Queensland Branch (2020-2022)
- Secretary, Australian Marine Sciences Association – South East Queensland Branch (2023)

Reviewer

Thalassas: An International Journal of Marine Sciences, Annals of the Brazilian Academy of Sciences, Zootaxa, Marine Biodiversity, Check List, ZooKeys, Cladistics, Brazilian Journal of Aquatic Science and Technology

Editor

Diversity (Special Issue “Cnidaria: Diversity, Ecology, and Evolution”)

AFFILIATIONS

International Association for Biological Oceanography, Global Invertebrate Genomics Alliance, Australian Marine Sciences Association, Taxonomy Australia

REFERENCES

Kylie A. Pitt

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