

Dr. Jonathan Wanderley Lawley

CONTACT INFORMATION

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APPOINTMENTS

Ecological Service Professionals

Senior Aquatic Ecologist 2025
Aquatic Ecologist 2024 - 2025

Griffith University

Research Fellow 2023 - 2024

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

Monsur MB, Bar I, Lawley JW, Ford R. 2025. Effector molecules and pathogenicity-associated gene expression in *Ascochyta rabiei*. *Fungal Biology* 129:101668. doi:[10.1016/j.funbio.2025.101668](https://doi.org/10.1016/j.funbio.2025.101668)

Boco SR, Capidos CGG, Fornillos RJ, Sucharitakul P, Lawley JW, Talacay D, Collins AG, Fontanilla IK, Comendador JE, Ladio FR. 2025. Molecular signatures reveal intra-species divergence, undetectable by traditional morphology, in the deadly box jellyfish, *Chironex yamaguchii* (Cubozoa; Chirodropidae) of Western Pacific. *Regional Studies in Marine Science* 82:104033. doi:[10.1016/j.rsma.2025.104033](https://doi.org/10.1016/j.rsma.2025.104033)

Vaghefi N, Bar I, Lawley JW, Sambasivam PT, Christie M, Ford R. 2024. Population-level whole-genome sequencing of *Ascochyta rabiei* identifies genomic loci associated with isolate aggressiveness. *Microbial Genomics* 10:001326. doi:[10.1099/mgen.0.001326](https://doi.org/10.1099/mgen.0.001326)

Gamero-Mora E, Lawley JW, Maronna MM, Stampar SN, Muhlia-Almazan A, Morandini AC. 2024. Chapter Six - Morphological and molecular data in the study of the evolution, population genetics and taxonomy of Rhizostomeae. *Advances in Marine Biology* 98: 361-396. doi:[10.1016/bs.amb.2024.09.001](https://doi.org/10.1016/bs.amb.2024.09.001)

Pitt KA, Lawley JW, Hinchliffe C, Matis PA, Olguín-Jacobson C, Arafeh-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, Phongphattaratwat 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 *Ophiothela* 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 haponema* (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

* Co-first author

WORKING PAPERS	Pigments in Medusozoa (Cnidaria) <i>with Jamileh Javidpour, Anthony R. Carroll, Carmel McDougall and Kylie A. Pitt</i>	
	Differential expression of rhizostomin pigments leads to colour variation in a jellyfish <i>with Kylie A. Pitt, Anthony R. Carroll and Carmel McDougall</i>	
CONFERENCE PRESENTATIONS	II International Symposium on Reproductive Biology of Fruit Tree Species	2024
	Australian Bioinformatics and Computational Biology Society	2023
	International Plant and Animal Genome Conference	2023
	Galaxy Community Conference	2023
	SLSQ Marine Stinger Symposium	2023
	International Congress of Plant Pathology	2023
	Australian Marine Sciences Association	2023, 2022, 2021
	Evolution	2021
	I Latin American Evolution Conference	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	Taxonomy and systematics; biogeography and macroecology; genomics and transcriptomics; environmental DNA (eDNA) and biodiversity monitoring; ecological and habitat suitability modelling; bioinformatics, data science and machine learning.	
RESEARCH FUNDING	Sunshine Coast Council, \$AUD 38,000	2023 - 2027
	Improving jellyfish monitoring and identification to enhance beach safety (lead investigator)	
	CPHFS Strategic Leverage Fund, \$AUD 10,000	2023 - 2024
	Developing advanced diagnostic tools for QX disease in oyster aquaculture (lead investigator)	
AWARDS AND FELLOWSHIPS	Top-Ten Marine Species (WoRMS)	2021
	3MT Competition - 3rd 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

- Applied Bioinformatics 2024
- Biological Systems 2024
- Molecular Biology 2023
- Introduction to Social Science (Environmental Sustainability) 2023

Teaching Assistant

- Introduction to Marine Science 2023, 2022, 2021, 2020
- Ecology 2020
- Zoology 2020
- Biological Systems 2023, 2022, 2021, 2020
- Marine Conservation and Resource Management 2019

Universidade Estadual Paulista

Instructor

- Species identity based on the genetics of organisms 2024

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)

Epigenetic factors associated with pathogenicity in the nectotrophic fungus *Ascochyta rabiei* infecting chickpea 2024
Penelope Morel (Research Summer Scholarship)

TECHNICAL SKILLS

Field and laboratory research; biodiversity surveys and environmental monitoring; GIS and spatial analysis (QGIS, ArcGIS and R); molecular biology, genomics and environmental DNA (eDNA); bioinformatics, ecological modelling, machine learning and data science (R, Python, Bash, Git and high-performance computing); analytical chemistry procedures.

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 sea-grass 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
- 3rd Australia and New Zealand Environmental DNA Conference 2027

Conference Session Organisation

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

Departmental Service

- HDR Representative, Griffith University Australian Rivers Institute 2020
- Committee Member, Australian Marine Sciences Association - Queensland South Branch 2020 - 2026
- Secretary, Australian Marine Sciences Association - Queensland South Branch 2024 - 2026

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, Hydrobiologia

Editor

- Frontiers in Marine Science (Topic Editor for ICYMARE -- Early Career Researchers in Marine Science Vol. II) 2026
- Diversity (Guest Editor for Special Issue "Cnidaria: Diversity, Ecology, and Evolution") 2025

AFFILIATIONS

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

REFERENCES

Liz West

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Allen G. Collins

Research Zoologist
and Curator
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