# Dr. Jonathan Wanderley Lawley

CONTACT INFORMATION

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**APPOINTMENTS** 

**Griffith University** 

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

**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, <u>Lawley JW</u>, 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

<u>Lawley JW</u>, 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

Page TM, <u>Lawley JW</u>.\* 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

<u>Lawley JW</u>, 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

- <u>Lawley JW</u>, 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
- Miglietta MP, Piraino S, Pruski S, Alpizar Gonzalez M, Castellanos-Iglesias S, Jeronimo-Aguilar S, <u>Lawley JW</u>, 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
- <u>Lawley JW</u>, 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
- <u>Lawley JW</u>, 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
- <u>Lawley JW</u>, 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
- Lindner A (ed.), Oliveira AFS, Freire AS, Batista AA, Gregoletto BF, Girardis BW, Faria Júnior E, Longo GO, <u>Lawley JW</u>, 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

\*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

Population-level whole genome sequencing of *Ascochyta rabiei* identifies genomic loci potentially associated with aggressiveness with Niloofar Vaghefi (first author) et al.

# CONFERENCE PRESENTATIONS

Australian Bioinformatics and Computational Biology Socie	ty 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 International Cassiopea Workshop Brazilian Zoology Conference Brazilian Marine Biology Conference Brazilian Genetics Conference Latin American Marine Sciences Conference	2023, 2019, 2013 2018 2018 2013, 2013 2013	8 8 1 2
RESEARCH INTERESTS	Omics, molecular biology, bioinformatics, systematics (and taxonomy), developmental biology (and evo-devo), biogeography, macroevolution		
RESEARCH FUNDING	<ul> <li>CPHFS Strategic Leverage Fund, \$AUD 10,000</li> <li>Developing advanced diagnostic tools for QX aquaculture (lead investigator)</li> </ul>	disease in oyste	
	<ul> <li>Moreton Bay Regional Council, \$AUD 12,000</li> <li>Improving jellyfish monitoring and identification safety (lead investigator)</li> </ul>	2023 n to enhance beach	
AWARDS AND	Top-Ten Marine Species (WoRMS)	202	.1
FELLOWSHIPS	3MT Competition - 3rd Place (Griffith Sciences)	202	.1
	Young Science Ambassador Award (Wonder of Science)	2020	.0
	Griffith University Postgraduate Research Scholarships	2019	9
	Research Internship Abroad Fellowship (FAPESP - Brazil)	) 2017	7
	Masters Research Fellowship (FAPESP - Brazil)	2010	6
	Science Without Borders Fellowship (CNPq - Brazil)	2014	4
	Honours Research Fellowship (CNPq - Brazil)	2013	3
TEACHING EXPERIENCE	Griffith University		
		Instructo	or
	Molecular Biology	202	<u>2</u> 3
	<ul> <li>Introduction to Social Science (Environmental Sus</li> </ul>	stainability) 202	<u>2</u> 3
		Teaching Assistar	nt
	• Introduction to Marine Science 20	- 023, 2022, 2021, 202	20
	• Ecology	202	
	• Zoology	202	
	<i>3</i> ;	023, 2022, 2021, 202	
	<ul> <li>Marine Conservation and Resource Management</li> </ul>	201	9

# 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 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

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); Analytical chemistry procedures (protein extraction, purification and sequencing); Field and laboratory experiments (animal collection and husbandry, measurement and monitoring of coastal and oceanographic features)

### **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**

# **Rebecca Ford** Professor and Dean

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#### Ido Bar

Senior Research Fellow Griffith University (Australia) i.bar@griffith.edu.au

# Kylie A. Pitt

Professor
Griffith University (Australia)
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# **Carmel McDougall**

Lecturer University of St Andrews (Scotland)

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