

AQUEST Aquatic Environmental Stress research group – December 2024 Update

A Festive Note is in the air!

Congratulations to Madara Ranatunga for having her PhDs accepted - fabulous milestone to reach and great work protecting the iconic Growling Grass Frog! With academic promotions for Claudette and Jackie richly deserved.

AQUEST received funding from the Port Phillip Bay Fund to investigate contaminant threats to our bay, was recognised as a finalist at the VMaCC Awards for our Litter Trackers project and have celebrated students excelling at presenting their work at internal and external events.

Litter Trackers Program a finalist in the 2024 Victorian Marine and Coastal Awards

**VICTORIAN MARINE &
COASTAL AWARDS 2024**



L-R: Dr Andrew Boxhall, Dr Jackie Myers, Monica Tewman,
Prof Vincent Pettigrove and Sheena Watt MP

Thank you to the @Victorian Marine and Coastal Council for hosting such a fantastic 2024 Victorian Marine and Coastal Awards in Nov. We were honoured to be finalists in the Inspiring Community Engagement and Education category for Professional Agencies, Large Organisations, and Industry, with our Litter Trackers project.

Congratulations to everyone recognised. We are grateful for @VMaCC's recognition of the incredible work being done around the bay by various individuals and organisations. Working on the Litter Trackers project has been a rewarding journey, thanks to our many partners, collaborators, and individuals involved. Litter Trackers highlighted the significant journey litter can take—from being trapped locally to travelling across the bay to the sea. Thank you to everyone who played a part: [Melbourne Water](#), [Corangamite Catchment Management Authority](#), [Bellarine Catchment Network](#), [Victorian Government](#), @Port Phillip Bay Fund, @Coastcare Community Grants, @Moreland Council, @Chain of Ponds Collaboration, @Merri Creek Management Committee, @Bendigo [EstuaryWatch](#), [Waterwatch Victoria](#)

www.marineandcoastalcouncil.vic.gov.au

Congratulations Claudette and Jackie on your academic promotion!!



L-R: Dr Claudette Kellar and Dr Jackie Myers

Congratulations to Dr **Claudette Kellar** and Dr **Jackie Myers** for both receiving academic promotion following RMIT School of Science Early Career Researcher Award for excellent performance in research in 2023. Hard earned and well done, well deserved to both of you!

Exploring Unseen Threats in Port Phillip Bay kicks off!



We are pleased to announce that [AQUEST @ RMIT Aquatic Environmental Stress research group](#), in collaboration with [Melbourne Water](#), [National Measurement Institute, Australia](#), [Port Phillip EcoCentre Inc.](#), Melbourne Water [EstuaryWatch](#), [Waterwatch Victoria](#), and [Werribee River Association](#) has been successful in securing funding in the latest round of the [Victorian Government](#) @PPBFund @Port Phillip Bay Fund for our project: "Exploring Unseen Threats: Contaminant Trends and Impacts in Port Phillip Bay," on the lands of the Bunurong, Wadawurrung, and Wurundjeri Woiwurrung people.

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Over three years, 19 estuaries entering Port Phillip will be monitored for potential contaminants, and biological impact assessments will be performed to address this knowledge gap and the risks posed to estuarine and Port Phillip Bay health. Data collected will inform evidence-based management actions.

The first round of sampling is occurring as this goes to print. If you are interested in joining us a volunteer for sampling please email us at aquest@rmit.edu.au to register your interest

PhD candidate becomes Dr Madara Ranatunga



L-R: Madara Ranatunga with Dr. Claudette Kellar on having her PhD accepted

Congratulations to **Madara Ranatunga** (Supervised by Prof. Vincent Pettigrove and Dr. Claudette Kellar) on completing her PhD entitled: "The toxicological effects of bifenthrin on urban fauna and its direct and indirect effects on threatened *Litoria raniformis* populations".

Her PhD looks at the effect of the synthetic pyrethroid, bifenthrin on the endangered Growling Grass Frog and asks the question: Have the growlers croaked it?

Bifenthrin is used widely for termite control and enters waterways via run off and dust, it's effect on growlers can be both direct and indirect. Madara's PhD includes a review paper in Environmental Advances: Toxicological impacts of synthetic pyrethroids on non-target aquatic organisms: A review

<http://doi.org/10.1016/j.envadv.2023.100388>.

With further papers in progress, watch this space as the story unfolds...

Closing the loop- Old CAPIM branded workwear to PALM

Since our move to RMIT and our groups name change in 2018 we have been systematically rebranding a hoard of workwear with obsolete branding. Having come to the end of what we can rebrand, we have now donated the three large boxes of tops, shirts and jackets to the Pacific Australian Labour Mobility (PALM)

Scheme <https://www.palmscheme.gov.au/> which is a partnership between the Australian Government and ten overseas nations- nine Pacific islands and Timor Leste. PALMS provides a workforce for Australia industries where workers are not available within Australia, and a source of employment and income for partner nations.

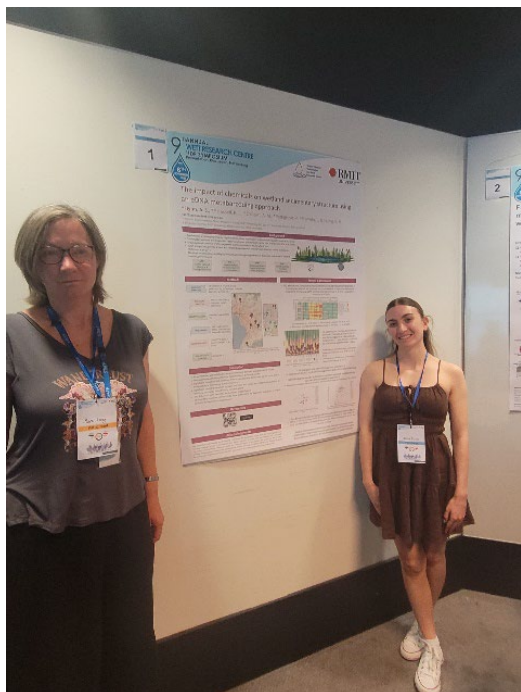
Randall Prior is the PALM Community Connections Coordinator for Victoria and is focussed on helping overseas workers integrate into local life. They have identified a very practical and immediate impact of cultural dislocation as being the dramatic change in weather conditions- coming from tropical countries into Victoria- thus the need for exactly the type of tops we had available.

Randall says "Fantastic tops, thanks so much" 16 Nov 2024

If you have any surplus warm clothes or bedding, please consider getting in touch with Randall.

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Student project highlights



Dr Sara Long with PhD candidate Anna Flynn posing by Anna's poster at the WETT symposium

Many AQUEST students and staff participated in the 9th annual [WETT Research Centre at RMIT University](#) HDR SYMPOSIUM, which brought together industry keynote speakers and allowed HDR students to present and discuss their work and broader industry issues. [Adele Romagnano](#) and [Anuradha Athawuda](#) gave oral presentations with [Anna Flynn](#) and @Thi Huyen (Emily) Nguyen presenting posters. Adele was awarded the Best Oral Presentation- People's Choice and Anna was awarded the Best Poster Presentation. Further an associated candidate Dr [Georgia Sinclair](#) was awarded the 2024 WETT Best Thesis Award. Well done to all our participating students!

Anna Flynn also attended the Australian Microbial Ecology Conference (AusME) in Parramatta (NSW) in Oct 2024, where she presented a poster of some of her PhD work.

Our PhD candidate Adele Romagnano became a radio star when she put a call out for platypus carcasses to help her investigate the effects of pollution on platypus from across Victoria. You can listen from 1:33:13 at:

<https://www.abc.net.au/listen/programs/vic-statewide-mornings/mornings/104670826>.

If you do come across a platypus carcass, especially if it is recent, please contact Adele on 0450 089 745.

From the field



Spring is in the air! Michael Clark captured these fluffy new arrivals while conducting field work at Olinda Creek, Nov 2024

Recent Publications

Here is a list of recent publications authored by members of AQUEST:

- Serasinghe, P.; Taleski, D.; Nguyen, H.T.K.; Nuggeoda, D.; Pettigrove, V. Development and Validation of a Novel Method Using QuEChERS and UHPLC-MS-MS for the Determination of Multiple Emerging Fungicides in Surface Waters. *Separations* 2024, 11, 279. <https://doi.org/10.3390/separations11100279>.
- Foord, C.S., Szabo, D., Robb, K., Clarke, B.O. and D. Nuggeoda. Hepatic concentrations of per- and polyfluoroalkyl substances (PFAS) in dolphins from south-east Australia: Highest reported globally, *Science of The Total Environment* Volume 908, (2024), <https://doi.org/10.1016/j.scitotenv.2023.168438>.

See our website for more publications, technical reports and project information: <http://rmit.edu.au/aquest>