



Marine Studies Institute

December 2024 Newsletter



Welcome to the End of 2024 edition of the MSI Newsletter!

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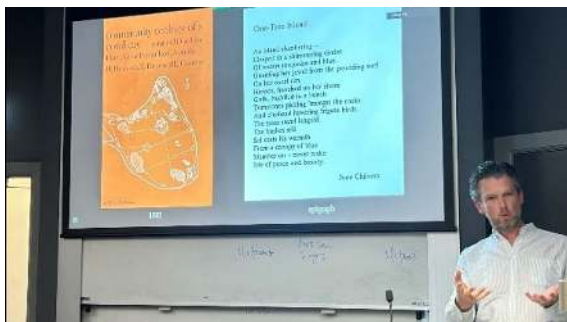
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Recent Events

[**ONE TREE ISLAND RESEARCH STATION 50th**](#)

ANNIVERSARY PANEL EVENT



MSI hosted a successful panel event on 16 October with over 40 attendees, to learn and appreciate the legacy and research opportunities of the One Tree Island Research Station (OTIRS).

The evening began with an introduction by Prof Will Figueira who discussed the history of OTIRS, followed by Prof Maria Byrne who presented the various fields of research being conducted on the island, and then Dr Killian Quigley who presented on the island as a muse.

Following the speakers, the panellists, Dr Killian Quigley, Dr Shawna Foo, Dr Emma Bowen, A/Prof Tristan Salles and the Station Managers, Ruby Holmes & Heinrich Breuer each presented their own perspective and experiences of working at the One Tree Island Research Station.

[Watch the recording on the MSI YouTube channel here.](#)

POSTGRAD WELCOME TO SEMESTER 2



MSI Welcomed the new batch of Marine Science and Management postgrad students with a lunch outside the Madsen Building on 4 September.

It was a wonderful moment to meet, chat and discuss prospects with these up and coming marine scientists.

CUBESATS ARE GO FOR LAUNCH!

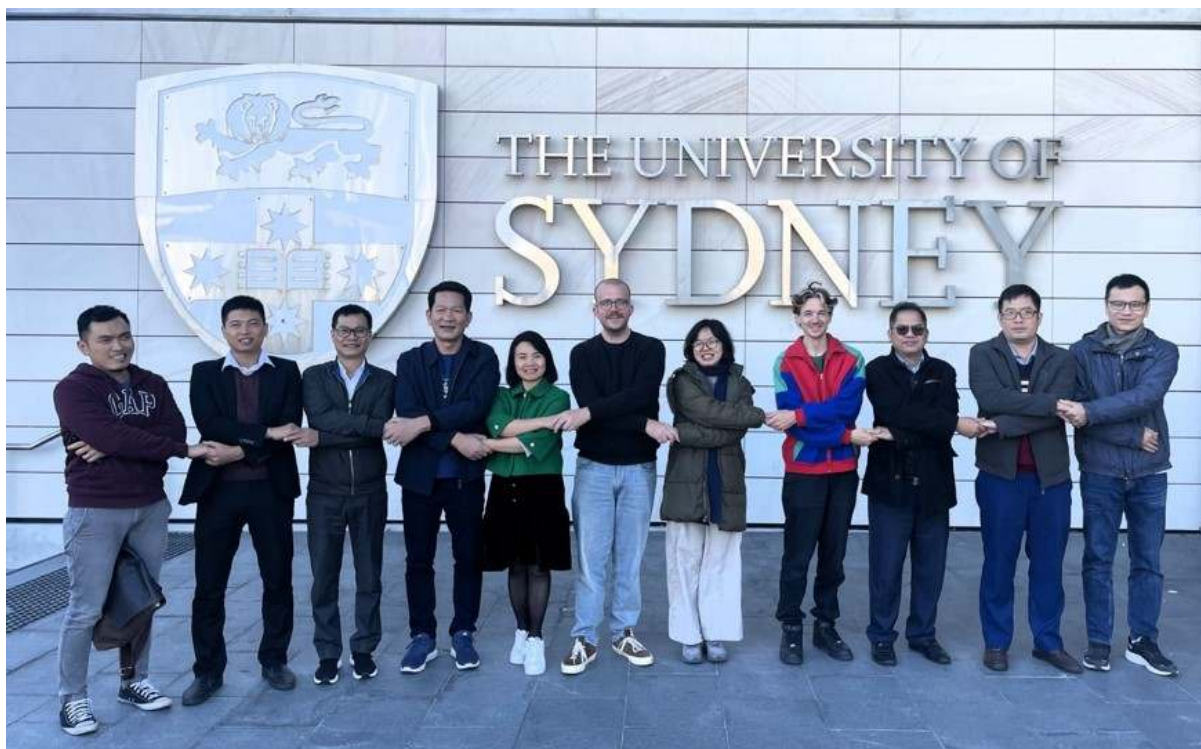




The CUAVA-2 and Waratah Seed-1 CubeSats were launched successfully at 4.56am on 17 August. [Dr Kevin Davies](#) and [A/Prof Eleanor Bruce](#) were involved in the design of the multi-spectral sensor on the CUAVA-2 satellite payload. The satellite signals were received within 12 hours of launch which is a good outcome. Photos above show the launch (above) and an image of the two cubesats (below).

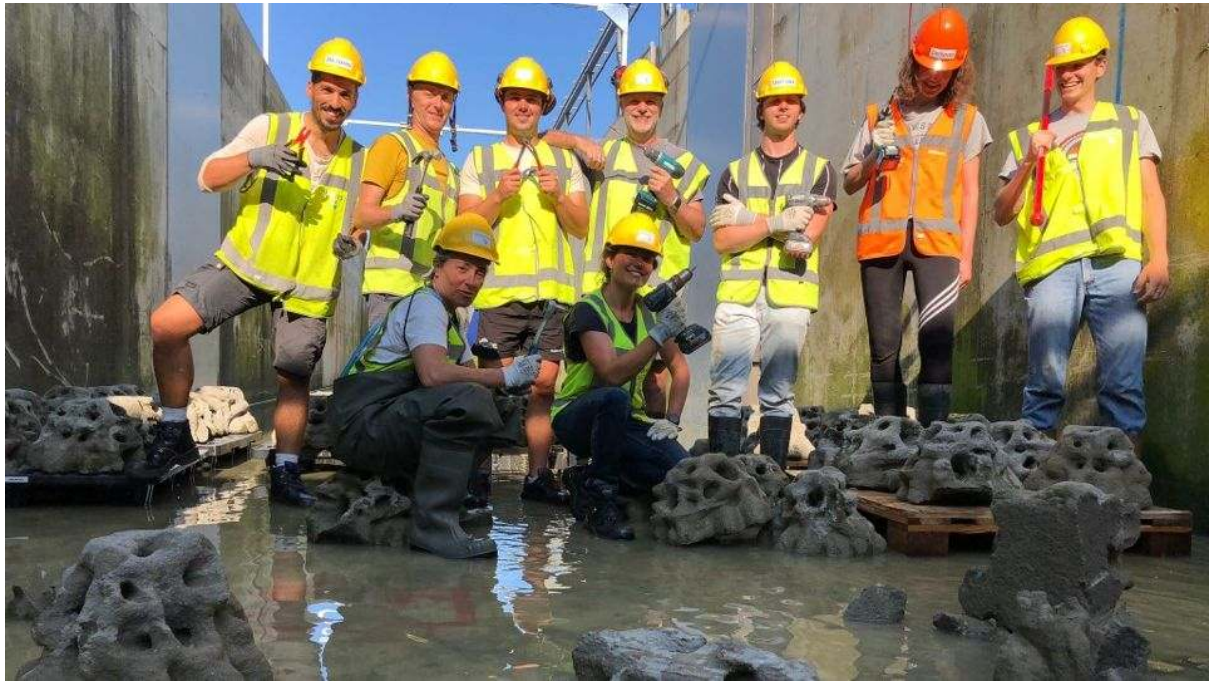
[Find out more here](#)

MARINE RESOURCES INITIATIVE WORKSHOP



As part of the Marine Resources Initiative (MRI) project with Geoscience Australia, [Jamie Simpson](#), [Dr Billy Haworth](#), and [A/Prof Eleanor Bruce](#) delivered a GIS and web mapping training workshop at Sydney University for delegates from various Vietnamese government agencies in August. The workshop covered a range of coastal and marine science and monitoring topics, particularly GIS for supporting incident management, vessel tracking, and visibility of activities in the East Sea (South China Sea).

OFF TO THE DELTA FLUME



As part of her SSP, [Prof Ana Vila Concejo](#) recently participated in an experiment at the Delta Flume in Delft (The Netherlands) where, as part of a large international project led by [Gerd Masselink](#) from the University of Plymouth, they ran tests on how sandy islands respond to different wave climates and sea levels. They did this with a bare reef flat and with a reef flat where they placed 3D printed corals. The largest waves were 1.5 m with 6-7 seconds, which at a scale of 3 represent some 4.5 m long period swell waves in nature.

By all accounts, it was awesome!

THRIVING OCEANS



The Thriving Oceans Research Hub is gaining momentum. In addition to Prof Josh Cinner (PL) and Tomas (our Senior Project Officer), four new team members have arrived: Dr Bess Ruff (postdoc), Dr Emily Lester (postdoc), Natalia Rivas Escobar, and Indy Riley. Unfortunately, we have to say goodbye to one of our team members, Yi Wang, who is a visiting PhD student from China. His productive visit was capped by a recently submitted publication tracking the growth of road networks within 500kms of coral reefs between 2001-2022: a monumental effort. The team also just released an open-access paper in the journal *PNAS*, which estimates that ~10% of the fish on global coral reefs are due to protection efforts.

[Read the article here](#)

WENONA SCHOOL STEM TOUR 2024



In July as part of an ongoing collaboration between the GRG and Wenona School, PhD students [Ratneel Deo](#), [Kate Whitton](#) and [Prof Jody Webster](#) visited One Tree Reef with 19 female high school students and two Wenona science teachers as part of the biannual Wenona STEM (science, technology, engineering and math) Tour. Together they undertook an exciting teaching and research campaign around the island and on the reef. Overall, it was a great trip and they collected some fantastic new data that will support ongoing research. It was a joy to be able to teach/show the high school students the processes/products that characterise the spectacular and diverse reef environments that make up One Tree Reef.

[Find more details about the trip here](#)

You can also read all about the Wenona students impressions of the One Tree Island adventure [in their own words here](#)

Spotlight: Dr Natali Pearson



Dr Natali Pearson

*Sydney Southeast Asia Centre
Discipline of Archaeology
University of Sydney*

Dr Natali Pearson works at the Sydney Southeast Asia Centre and is affiliated with the Discipline of Archaeology, where she researches maritime heritage in Southeast Asia. Her recent book *Belitung: The Afterlives of a Shipwreck* is published by the University of Hawai'i Press and NUS Press. Natali's DECRA Fellowship (2025-2027) focuses on maritime heritage diplomacy and sunken warships in Malaysia, Indonesia, and Timor-Leste. She is President of the Indonesia Council, an Expert Member of the ICOMOS International Committee on Archaeological Heritage

Management, and Councillor for the Australasian Institute for Maritime Archaeology. Natali is also a proud alumna of the Australian Consortium for In-Country Indonesian Studies and the Asialink Leaders Program

What advice would you give to early career marine scientists?

I've been fortunate to work with many wonderful PhD candidates and early career researchers in my capacity as Curriculum Coordinator at the Sydney Southeast Asia Centre. Although they all come from very different disciplinary backgrounds, I would offer similar advice to all of them:

- Find yourself a great mentor – I have to be honest; I did not realise I needed a mentor until I had one, and she found me rather than me finding her. And she is from a completely different discipline! So perhaps I should change my advice to “Be open to learning from others, especially those not on your radar!”
- Foster academic generosity – look for ways to elevate and include your colleagues and peers, especially those from marginalised communities, disadvantaged backgrounds, just at the beginning of their research career etc
- Set yourself up for success! Invest some time in getting organised, establishing efficient systems and protocols for managing your emails, calendar and data. It saves a lot of time in the long run: time you can spend in the ocean, collaborating with colleagues or writing up your results!
- Resist despair (I find reading [Rebecca Solnit](#) is great for this). Turn your energy instead to finding – or building – a community of resilient, committed ocean-loving researchers

How do you see your area of research contributing to the most pressing environmental issues?

- As a scholar of maritime heritage, I am frankly just happy to be invited to the table (thank you MSI for being so inclusive)! In this, the Decade of Ocean Science, heritage is often only an afterthought, frequently relegated to the margins of the discussions. Fortunately there is some great work being done by the [Ocean Decade Heritage Network](#) to demonstrate the relevance of maritime archaeological research to the implementation of the Ocean Science Decade, and to integrating heritage into the discussions around sustainable development.
- Examples of this work include the potential for shipwrecks in Indonesia to act as nature-based solutions for the promotion of marine biodiversity, contributing to [more sustainable and efficient outcomes for marine resources](#). Elsewhere, some of my colleagues are exploring the relationship between increasingly severe weather events associated with climate change and the [acceleration of corrosion](#) on oil-filled WWII shipwrecks in Chuuk Lagoon (Federated States of

Micronesia). Meanwhile, in Timor-Leste, maritime archaeologists and heritage researchers are looking at the [remnants of fish weirs](#) in the intertidal zones, which give us insights into indigenous ontologies regarding sustainable fishing practices and offer valuable lessons for future sustainable marine ecological conservation.

- For me, I am very interested in the relationship between heritage and identity. I believe the ways in which communities and nations manage their maritime heritage – as [something to be extracted and profited from](#), or as something to protect and preserve – can tell us a lot about their relationship with the ocean. In terms of how it is commodified, industrialised and extracted, heritage has much in common with fish and with seabed resources. We know this mode of operating is not sustainable, so what lessons can we take, using different lenses, about creating a more sustainable future? The past has to be part of those discussions.

MSI Current Students

Do you study anything marine related at Sydney University?

If so, please join us on the MSI [Canvas site](#) for information, opportunities and events. From this site you can also visit the [geo student portal](#) and the [School of Life and environmental sciences student portal](#) for details of unit options and job, research and fieldwork opportunities.

MSI Alumni

Did you do marine studies at Sydney University?

If so, we would love to add you to our list of MSI Alumni. We want to find out what weird and wonderful things you are doing and where your studies take you. You may also have the opportunity to share your experience and advice with our current students.

If you would like to be added to our MSI alumni database, please reply to this email and let us know.

#Coast2Cast Podcast



In early 2021, Ana Vila-Concejo (University of Sydney) and Giovanni Coco (University of Auckland), decided to interview coastal scientists, engineers and oceanographers from around the world about research and non-research topics. The idea was that, as COVID madness continued, students and scientists around the world could still "meet" coastal scientists and hear directly from them. This podcast has grown into a successful global marine outreach.

Listen to #Coast2Cast in [Spotify](#), via [PodBean](#) or directly from the [Coast and Ocean Collective](#).



[Listen to the podcast](#)



Marine Studies Institute

Email: sydney.msi@sydney.edu.au

Phone: 02 8627 0450

School of Geosciences | Faculty of Science

Rm 308, Madsen Building F09 | The University of Sydney |

NSW | 2006



THE UNIVERSITY OF
SYDNEY



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Marine Studies Institute · Room 308, Madsen Building, Eastern Avenue · Sydney, Nsw 2000 · Australia

