



Tommy Fellowes

Project Engineer

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Tommy is a Project Engineer at the Water Research Laboratory. He completed a PhD at Macquarie University in 2020, focusing on the coastal processes of open coast beaches classifying them and their storm response. He has over 5 years of experience working on a range of projects investigating processes of beaches, estuaries, coral reefs, and coral reef islands.

Tommy is a recognised expert in coastal processes, having worked on projects with collaborators from industry, government, and academia in Australia, New Zealand, the USA, and the Pacific. He has published 21 journal publications emphasising the processes and climate drivers impacting the evolution of different coastal environments, considering geo-physical, biological, human, and legal dimensions. He is adept at conducting fieldwork, collecting and analysing geospatial, remote sensing and hydrodynamic

BSc (Environmental Biology), University of Technology, Sydney, 2011

Professional history

July 2024 Present: Project Engineer, WRL UNSW.
 Sept 2023 Jun 2024: Postdoctoral Research Fellow, The University of Sydney / Pacific Community (SPC) Fiji
 Aug 2020 Aug 2023: Postdoctoral Research Associate, The University of Sydney / Geoscience Australia.
 Jan 2020 July 2020: Associate Lecturer, The University of Sydney

Expertise

Coastal processes, erosion and recovery	Coral Island vulnerability assessment
Open coast and estuarine beach processes	Sediment dynamics, transport and deposition
Nearshore hydrodynamics	Instrument programming and deployment
Coral reef island morphodynamics	Fieldwork and hydro and spatial data collection

Summary of relevant experience

Coastal process and estuarine studies

2016 2023: East Sydney beach monitoring, NSW
 2022: Oyster reef hydrodynamics, NSW
 2022: Rose Bay beach, Woollahra Council, NSW
 2016 2019: PhD (headland bCID dland bCID dlra3(c)p9()3.ics, -
 2016 2023: Pittwater/Botany Bay beaches, NSW

2024: Great Barrier Reef, cyclone impacts to islands
 2023: Great Barrier Reef, DFAT training workshop
 2020-2023: Offshore coral islands, Geoscience Australia

Coral reef and island process studies

2024: Tuvalu, coral island vulnerability, SPC (Fiji)

Field Investigation and Data Collection

2023: Funafuti, island stability assessment, Tuvalu
 2020 2023: Coral Sea, island monitoring, QLD
 2014, 2016, 2018 2023: One Tree Island, GBR, QLD
 2016 2023: East Sydney, beach monitoring, NSW

Publications

Selected technical reports

Fellowes, T.E., Izaguirre, C., Lee, G., et al. (2024) Resilient Boundaries for the Blue Pacific Technical Report Tuvalu, Pacific Community (SPC) Fiji and the University of Sydney

Vila-Concejo, A., Perris, L., **Fellowes, T.E.**, Whitehead, J., and Liu, B., (2022) Woollahra coastal processes study, Sydney Institute of Marine Sciences and the University of Sydney

Selected journal publications

Fellowes, T.E., Vila-Concejo, A., Bruce, E., Byrne, M., and Baker, B., (2024) Risk Classification of Low-Lying Coral Reef Islands and Their Exposure to Climate Threats. *Science of the Total Environment*, 912

Vila-Concejo, A., **Fellowes, T.E.**, Gallop, S.L., et al., (2024). A review of the geomorphology of beaches in estuaries and bays (BEBs): Insights and future research directions. *Coastal Futures*

Roncolato, F.R., **Fellowes, T.E.**, Duce, S., Johansson, O., Mora, C., Stratchan, I., Bugnot, A., Erickson, K., Figueira, W., Gribben, P.E., Pine, C., Morgan, B., and Vila-Concejo, A., (2024) Ecomorphodynamics of oyster reefs and their influence on oyster reef morphology. *Geomorphology*

Kennedy, D.M., McCarroll, R.J., **Fellowes, T.E.**, Vila-Concejo, A., Gallop, S.L., McSweeney, S., Ierodiaconou, D., and Tran., Q.T., (2023) Geological Control on Estuarine Beaches Behaviour: Port Phillip Bay, Australia. *Marine Geology*, 463