CV: MIKE MCWILLIAM

PERSONAL

Email: mjmcwilliam@outlook.com
Citizenship: British (Current J1 Exchange Visitor to the US)

CURRENT POSITION

2019-Present	Postdoctoral Research Fellow in Quantitative Ecology Hawaii Institute of Marine Biology, University of Hawaii Manoa

PRIOR POSITIONS

2018-2019	Research Associate in Coral Reef Biodiversity ARC Centre of Excellence for Coral Reef Studies, James Cook University Project: *The functional biogeography of the Pacific Ocean*

EDUCATION

2015-2018	PhD (*Cum Laude*), Natural and Physical Sciences ARC Centre of Excellence for Coral Reef Studies, James Cook University Thesis title: *The functional diversity and redundancy of corals*
2009-2012	BA (Hons 1st Class) Biological Sciences University of Oxford Dissertation: *Evolutionary radiations of Antarctic Hydrocorals*

RESEARCH INTERESTS

Demography	Comparative trade-offs in demographic rates, and the role of traits [9]
Biogeography	Global patterns of biodiversity using spatial and functional trait data [2, 5]
Resilience	Long-term dynamics; disturbance, recovery and regime shifts [7]
Climate Change	Response of populations and ecosystems to warming; coral bleaching [1, 3]
Ecosystem function	Diversity-productivity relationships; facilitation and response diversity [4, 8]

PUBLICATIONS - Google Scholar

1. Hughes, T. P., Kerry, J. T., Álvarez-Noriega, M., Álvarez-Romero, J. G., Anderson, K. D., Baird, A. H., ... & **McWilliam, M.J.** (2017). Global warming and recurrent mass bleaching of corals. *Nature*, 543(7645), 373 ⇒*
2. **McWilliam, M.,** Hoogenboom, M. O., Baird, A. H., Kuo, C. Y., Madin, J. S., & Hughes, T. P. (2018). Biogeographical disparity in the functional diversity and redundancy of corals. *Proceedings of the National Academy of Sciences*, 115 (12) 3084-3089 ⇒
3. Hughes, T. P., Kerry, J. T., Baird, A. H., Connolly, S. R., Dietzel, A., Eakin, C. M., ... & **McWilliam, M. J.** (2018). Global warming transforms coral reef assemblages. *Nature*, 556.7702 (2018): 492 ⇒
4. **McWilliam, M,** Chase, T.J., Hoogenboom, M.O. (2018). *Neighbor Diversity Regulates the Productivity of Coral Assemblages*. Current Biology 28.22 (2018): 3634-3639 ⇒*

5. Doszpot, N. E., **McWilliam, M. J.,** Pratchett, M. S., Hoey, A. S., & Figueira, W. F. (2019). Plasticity in Three-Dimensional Geometry of Branching Corals Along a Cross-Shelf Gradient. *Diversity*, 11(3), 44. ⇒
6. **McWilliam, M.** (2019) The functional diversity and redundancy of corals. Doctoral dissertation, James Cook University. ⇒
7. **McWilliam, M.,** Pratchett, M. S., Hoogenboom, M. O., & Hughes, T. P. (2020). Deficits in functional trait diversity following recovery on coral reefs. *Proceedings of the Royal Society B*, 287(1918), 20192628. ⇒
8. Chase, T. J., Pratchett, M. S., **McWilliam, M. J.,** Hein, M. Y., Tebbett, S. B., & Hoogenboom, M. O. (2020). Damselfishes alleviate the impacts of sediments on host corals. *Royal Society Open Science*, 7(4), 192074. ⇒
9. Pratchett, M. S., **McWilliam, M. J.,** & Riegl, B. (2020). Contrasting shifts in coral assemblages with increasing disturbances. *Coral Reefs*, 1-11 ⇒

***Cover feature**

MEDIA COVERAGE

2020 Recovery study[7] featured in *'When reef ecosystems fail to recover'* China Daily.

2019 Reef productivity study[4] highlighted on F1000 Prime.

2018 Coral bleaching study[3] reaches the 2018 Altmetric Top 100 (#9); over 200 news articles

Biogeography study[2] in a PNAS featurette *'Diversity in tropical reef ecosystems'*

Biogeography study[2] in a Coral COE article, *'Redundancy offers reassurance to reefs'*

2017 Coral bleaching study[1] reaches the 2017 Altmetric Top 100 (#21); over 350 news articles

2016 *'More than a third of the coral is dead on the Great Barrier Reef'* Washington Post

'13 Messages from Marine Biologists Fighting for the Great Barrier Reef ' Buzzfeed

PRESENTATIONS & WORKSHOPS

2021 Session Host (confirmed): "*Can functional studies provide a sustainable future for coral reefs?"* International Coral Reef Symposium (ICRS), Bremen, Germany

2020 Presenter: "*Navigating coral trait space*" Department of Biology Seminar Series, University of Hawaii Manoa

2019 Coral Demography Workshop, Boone Center for Science and Environmental Leadership at the Wrigley Marine Science Center on Santa Catalina Island

2018 Presenter: "*The functional diversity and redundancy of corals*", PhD Exit Seminar, ARC Centre of Excellence for Coral Reef Studies; [video].

2017 Session Host: "*Species, traits and Coral Reef Processes"* European Coral Reef Symposium (ECRS), Oxford, United Kingdom.

Presenter: "*Linking coral assemblages to community productivity*", European Coral Reef Symposium (ECRS), Oxford, United Kingdom.

Presenter: "*Regional disparity in the diversity and redundancy of coral functional roles*." Australian Coral Reef Society (ACRS) Conference, Townsville, Australia.

2016 Presenter: "*Functional collapse on Caribbean Coral Reefs*.", International Coral Reef Symposium (ICRS), Honolulu, Hawai'i, USA.

AWARDS & FUNDING

2019 Australian Marine Science Association (AMSA, North Queensland Division) Award for Research

2018	Virginia Chadwick Award for outstanding publication in peer-reviewed international journals (AUD 1000)
2017	Vikki Harriot Award, Outstanding Conference Presentation Award Australian Coral Reef Society (AUD 500)
2015	JCUPRS Scholarship, Postgraduate Research Scholarship (AUD 204,872)
2012	Brasenose Travel Grant (GBP 500, for coral reef ecology workshop, Bermuda)
2012	Bermuda Institute Of Ocean Sciences Scholarship (GBP 2000)
2009	Brasenose Travel Grant (GBP 500, for a research work placement, Indonesia)

RESEARCH EXPEDITIONS

2019	[16] Kaneohe Bay, Oahu (Bleaching surveys, multiple surveys over 6 months); [15] Palau (Coral trait variation study, duration: 21 Days)
2018	[14] Southern Coral Sea (Coral Sea Monitoring, duration: 20 Days); [13] Orpheus Island (Coral recruitment study, duration: 7 Days); [12] Central Coral Sea (Coral Sea Monitoring, duration: 17 Days)
2017	[11] Palm Island Reefs, Great Barrier Reef (AIMs expedition, duration: 10 days), [10] Whitsunday Island Reefs (Coral recruitment study, duration: 6 days); [9] Central Great Barrier Reef (AIMs expedition, duration: 15 days); [8] Orpheus Island, Australia (Reef productivity study, 2 Months)
2016	[7] Great Barrier Reef, Cairns to Cooktown (Bleaching Mortality Surveys, duration: 28 days), [6] Heron Island, Great Barrier Reef (Fish behaviour study; duration; 21 days); [5] Opal Reef, Great Barrier Reef (Fish behaviour study; duration: 4 days); [4] Great Barrier Reef, Cairns to Cooktown (Bleaching surveys, duration: 28 days)
2015	[3] Palm Island Reefs (Cross-shelf growth study, duration: 7 days), [2] Orpheus Island, Great Barrier Reef (Pre-bleaching surveys; duration: 14 days); [1] Lizard Island, Great Barrier Reef (Fish movement study; duration; 21 days).

POLICY REPORTS

2017	Briefing to MP's on Great Barrier Reef bleaching, delivered to MP's at 'Science Meets Parliament' in Canberra, Australia
2016	Advancing climate action in Queensland, written on behalf of the Australian Coral Reef Society (visit online)
	Science-based policy plan for Australia's Great Barrier Reef, written on behalf of the Australian Coral Reef Society (visit online)

OTHER SKILLS & ACTIVITIES

SCUBA Instructor	Marine Science and SCUBA Instructor, working in 2012-2014 for (1) ActionQuest, British Virgin Islands, (2) W Resort, North Ari Atoll, Maldives (3), Heron and Hayman Island, Great Barrier Reef, and (4) Bayplay Adventure Tours, Victoria, Australia
Reviewer	Reviewer of manuscripts for *Proceedings of the Royal Society B*, *Functional Ecology*, *Coral Reefs*, *Marine and Freshwater Research*, and *Biodiversitas; Indonesian Journal of Biodiversity*. Reviewer of grant proposals for the National Science Foundation (NSF) and Centre de synthèse et d'analyse sur la biodiversité (CESAB).