

CURRICULUM VITAE – LINE KOLIND BAY PhD

Personal Details

Name Dr Line K Bay
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Academic Education

2024 Graduate of the Australian Institute of Company Directors
 2017 Fundamentals in Project Management
 2014 Leadership Development Program: Melbourne Business School
 2007 Microarray Analysis Advanced Intensive: Danish Technical University
 2006 PhD in Population Genetics, James Cook University (JCU), Townsville.
 2000 BSc (Hons 1A) in Marine Biology, JCU, Townsville.
Additional Training
 Annual O2 Resuscitation, First Aid
 Various AIMS Leadership training (2017 - 2022); Emotional Intelligence (2018/2019); Coaching (2013, 2019 – 2023; 2025), HDR Supervisor training (2009/2022); Media Training (2008/2011);

Employment History

2022 - Present Research Program Director – Reef Recovery, Adaptation and Restoration, AIMS
 2023 - Present Senior Principal Research Scientist, AIMS
 2018 - 2022 Principal Research Scientist, AIMS.
 2015 - 2022 Team Leader: Reef Recovery, Adaptation and Restoration, AIMS
 2013 - 2018 Senior Research Scientist, AIMS
 2013 - 2015 Team Leader: Climate Change and Ocean Acidification, AIMS
 2011 - 2012 Research Scientist, AIMS
 2008 - 2010 Senior Research Fellow, Qld Government Smart State Fellowship. ARC Centre of Excellence Coral Reef Studies and AIMS, Townsville
 2006 - 2007 Postdoc Research Fellow, ARC Centre of Excellence Coral Reef Studies, Townsville
 2006 Associate Lecturer (Population Genetics), James Cook University, Townsville

Additional Professional Positions and Committee Membership

2023 - Present RRAP Steering Committee. AIMS@JCU (Scientific Advisory Committee); GBRF-AIMS Leadership Team; CSIRO-AIMS Leadership Team
 2019 - Present RRAP Sub-program Lead: Enhanced Corals and Treatments and Coral Aquaculture and Deployment
 2017- 2019 RRAP Concept Feasibility study Theme Leader and Author: Coral Ecology and Genetics
 2019 Advisory board member for Translational Bioscience: Macquarie University
 2018 - 2019 Science Committee Member: Reef Check

Current and Recent Research Projects (last 5 years)

CS: Contributing Scientist LS: Lead Scientist

2022 - 2024 Towards predictive Phenomics (Revive and Restore); LS: US\$195K/ 2 years
 2021 - 2024 Marie Skłodowska - Curie Postdoctoral Global Fellowship (EU) CS: AU\$ 416K / 3 years
 2021 - 2024 Global Search for Heat Tolerant Corals (Paul G Allen Family Foundation) CS: AU\$900K / 3 years
 2020 - 2023 Genetic markers of heat tolerance (RRAP); LS: AU\$1.5M / 3 years
 2020 - 2022 Gene editing for coral resilience (AIMS internal support); LS: AU\$40K / 2 years
 2020 - 2022 1000 coral genome project (Augoron Foundation); LS: AU\$260K / 2 years
 2019 - 2024 Woppaburra Coral Project (BHP Social Investment); LS: AU\$11M / 5 years
 2019 - 2025 RRAP funding (CS: To date, the Australian Government has committed over \$AUD200 million to RRAP. The program has also received \$AUD88 million in co-investment by program partners and \$AUD140 million via the Great Barrier Reef Foundation from third party donations.

2018 - 2021	Traits of corals that survived bleaching (NESP); LS: AU\$600K / 3 years
2015 - 2018	Does water quality affect bleaching? (NESP); LS: AU\$500K / 3 years
2018 - 2021	Role of gene body methylation in adaptation and acclimatization (NSF IOS) CS: US\$1.12M / 3 years

Evidence of Peer Esteem and Awards

2019 - 2022	Associate Editor for Proceedings of the Royal Society, London B
2016 - 2019	Associate Editor for Frontiers in Marine Science
2015 - 2019	Biological Topic Editor Coral Reefs Coral Reefs
2012 - 2015	Associate Editor BMC Evolutionary Biology
2011 – Present	Adjunct Associate Professor (2021), Senior Lecturer (2018) Fellow (2011), JCU
2010 - 2011	International Fellowship, Australian Academy of Science
2008	Isobel Bennet Fellowship, Australian Museum.
2000	Science Distinguished Student Prize for exceptional merit, JCU
2000	CRC Reef Prize for best honours project, JCU
1996	Joe and Val Baker Prize & Ron Kenny Prize for undergrad science excellence JCU
2005 - Present	Regular reviewer for international granting bodies and promotion reviews

Communication and Public Engagement (select 10 years)

Traditional Media and Documentaries

2025	Multiple interviews with New York Times, Live TV France 24, DR-2 Denmark travel show
2024	Sydney Morning Herald feature story in the Good Weekend
2023	James Bradley – Coral Reefs chapter within a book about the ocean that will be published in 2024 by Penguin Random House in Australia, and Scribe in the UK and US.
2022	Cosmos Investigation: Potential reef 'saviours' (part 2 of 3) Jonica Newby. Additional stories from media releases – TV and radio, online features
2021	>30 news stories from media releases – TV and radio, online features
2020	>30 news stories from media releases – TV and online; Interview on Australia Radio National Morning News
2019	The Great Continental Train Journey: BBC: Climate Change: The Facts: BBC Documentary; Science et Vie: French TV ; News article in Science Magazine; The Science Show: Radio National; Interview on Australia Radio RN Morning News
2018	News article in Traits Times (Singapore), World Ocean Day Feature (CNN), ABC 7:30 GBR Special

Popular Online Articles

2024	Scientists discover heat-tolerant corals hidden in plain sight. Could it help protect the Great Barrier Reef? Naugle, Howells, and Bay in the Conversation
2023	Accelerated evolution and automated aquaculture could help coral weather the heat. Hardisty and Bay in the Conversation.
2022	A changing climate for coral reef research by Bay LK, Ortiz J and Quigley KM. ACRS 100-year anniversary publication 'The coral reefs of Australia: Perspectives from beyond the water's edge'.
2020	If we can put a man on the Moon, we can save the Great Barrier Reef – The Conversation
2020	Gene editing is revealing how corals respond to warming waters. It could transform how we manage our reefs - The Conversation
2020	How genetic interventions can increase the resistance of corals to warming oceans - ECOS CSIRO
2017	The Great Barrier Reef can repair itself, with a little help from science - The Conversation
2017	Explainer: mass coral spawning, a wonder of the natural world - The Conversation

Engagement and Outreach

2015 - Present	<i>Ad hoc</i> representative of AIMS to State and Federal Government Ministers and staff including Prime Minister, various portfolio ministers, and national and international delegations.
2019 - Present	Lead Traditional Owner contact for coral restoration research with numerous in person and video engagements to gain Free Prior and Informed Consent for research projects.
2019	On Country workshop – Woppaburra sea Country (participant and presenter)
2018	Presentation to peak GBR Indigenous reef body (IRAC) on reef restoration and adaptation
2018	RRAP: An overview. Marine and Coastal Habitat Restoration workshop. Federal Dept of Environment, Canberra.
2018	Presentation to Townsville City Council: Overview of interventions considered by RRAP Concept Feasibility Phase.

2018 Presentation to Greening Australia: Next Generation corals for tomorrow's reefs.
2018 Public Lecture at Magnetic Island: Next Generation corals for tomorrow's reefs.
2017 National Environment Science Program. Bleaching & WQ – what is the connection? NESP-WQ
2014 Careers in Marine Science – invited speaker JCU
2013 Panel Member at ABC Radio and DIISRT "Science in the Club" communication event
2012 - 2016 Scientist in schools with numerous engagements across primary and secondary year levels

Supervision and Mentorship

Supervisor for Higher Degree Research (HDR) Students

PhD (7 current /9 completed) Masters (6 completed) Honours (0 current /2 completed)

2022 - 2026	Manon Laetitia Pribille EPFL, Switzerland
2023	Annie Guillaume EPFL, Switzerland
2022 - 2026	Rhys Cornish. PhD AIMS@JCU
2022 - 2026	Hugo Denis. PhD Paris Sorbonne University
2022 - 2026	Michael Wooster. PhD Southern Cross University (SCU)
2022 - 2026	Melissa Naugle PhD SCU
2020 - 2024	Magen Marzonie PhD AIMS@JCU
2022 - 2024	Amanda Tinoco PhD Macquarie University and Carnegie Institution of Biology
2019 – 2022	Josephine Nielsen PhD JCU
2018 - 2020	Holland Elder PhD Oregon State University. Postdoc USC
2017 – 2020	Luke Morris (AIMS@JCU PhD). Bonus award of \$10K from NESP TWQ hub
2016 - 2017	Josephine Nielsen (honours) and recipient of the Dean of the College of Marine and Environmental Sciences award for the best overall performance and ability in level 4
2016	Hanaka Mera (Masters – high distinction)
2016 - 2019	Jose Montalvo-Proana (AIMS@JCU PhD; ACRS travel award 2018). Full time employment at AIMS
2012 - 2016	Kate Quigley. Masters, then PhD student: Environmental and genetic drivers of symbiont associations in reef building corals. (PhD with B Willis W Leggat, JCU). Post-doc then research scientist at AIMS. Research Scientist Minderoo
2012 - 2016	Melissa Rocker. Masters, then PhD student. Effects of local and global stressors on the energy budgets and fitness of reef-building corals (PhD w B Willis JCU, K Fabricius AIMS. Postdoc at AIMS and Deakin
2012 - 2018	Stefano Montenari. Hybridisation in reef fishes: ecological and genetic scenarios (PhD – co-supervised with Prof M Pratchett and Dr L van Herwerden JCU).
2010	Laura Woodings. Temporal variation in gene expression in colour morphs of <i>Acropora millepora</i> . (MSc - Minor Report awarded a HD).
2010	Aurelie Guérécheau. Development of quantitative multiplexed gene expression assays for physiological condition in <i>Acropora millepora</i> . (MSc École Normale Supérieure de Lyon, France. Report awarded a HD)
2008 - 2012	James Tan. Environmental and genetic drivers of growth and reproduction in corals. (PhD – co-supervised with Dr A Baird, JCU – Best Student Presentation Asia-Pacific Coral Reef Symposium, Phuket, Thailand 2010). University job
2008 - 2011	Emily Howells. Genetic resilience of <i>Symbiodinium</i> populations: the role of coral endosymbionts in reef adaptation to climate change. (PhD –AIMS - Smart State Scholarship, Best Speaker AIMS@JCU 2010). Postdoc UAE; postdoc UOW, fellow at SCU
2008 - 2011	Rebecca Lawton. Ecological specialization versus susceptibility to disturbance among coral-feeding butterflyfishes. (PhD) Smart State Scholarship. Outstanding Student Presentation ACRS 2010). Postdoc at JCU; permanent job New Zealand
2007 – 2008	David Jones. Effective population sizes in a coral reef fish, <i>Pomacentrus amboinensis</i> . (Honours Class 1A Smart State Scholarship). Postdoc at JCU
2007 - 2014	Allison Paley. Genetic diversity, bleaching sensitivity, and colour polymorphism of a common reef-building coral, <i>Acropora millepora</i> , from the Great Barrier Reef. (PhD). Research staff at JCU

Mentor for Post-Doctoral Fellows	
2023 - 2024	Dr Josephine Nielsen,
2020 - 2025	Dr Sam Goyen
2016 - 2019	Dr Carly Kenkel. Assistant Professor USC
2016 - 2019	Dr Kate Quigley. Research Scientist with AIMS, then Minderoo Foundation
2020 - 2022	Dr Hugo Harrison. Bristol University
2021 - 2024	Dr Samantha Goyen
2022 - 2024	Dr Severine Fourdrilis (Marie Skłodowska-Curie Postdoctoral Fellow)
Direct Staff Supervision	
2015 - 2025	6 - 10 direct staff with full group size up to 80 people

2022 – Present	~40 AIMS staff: Technicians (21); Scientists (10); Project Coordinators (2); Postdoctoral Scientists (5); Research Assistant (1); Graduate (1)
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Expert Contributions and Presentations (10 years)

* Invited keynote or plenary

2025	National Marine Science Committee White Paper Presentations, Canberra
2024	Adapting Under Pressure. Reef Futures Cancun Mexico
2024*	Reef Futures, Cancun, Mexico
2024*	GBR Restoration symposium, Cairns
2022-24*	Expert contributor to IEP to inform Reef 2050
2022	RRAP Community panel. Resident expert
2019 *	The management and conservation of coral reefs in the 21 st century. Species on the Move SA
2019 *	The management and conservation of coral reefs in the 21 st century. ANZMBS Sydney Australia.
2019 *	RRAP Concept Feasibility Study –key results. Biodiversity Funders conference Santa Cruz CA.
2018 *	Biological approaches to coral restoration and adaptation. Reef Futures. Key Largo Florida.
2018 *	Next Generation corals for tomorrow's reefs. GBR Restoration Symposium.
2018	Sorting the wheat from the chaff: evaluating the potential benefits and risks of novel interventions on coral reefs. International Marine Conservation Congress Kuching Malaysia
2017 *	Managed translocations on the GBR: UC Davies USA.
2017 *	The potential for multi-trait genetic adaptation in a coral. ACRS Townsville.
2017 *	The Great Barrier Reef: Status trend and new solutions under climate change University of Southern California departmental seminar.
2017 *	Enhancing the resilience of corals through assisted gene flow. International Congress for Conservation Biology Cartagena Colombia.
2017 *	Can corals adapt to the stress of modern life? Departmental seminar: Monash University
2016	Genetic signatures of habitat adaptation are mirrored by phenotypic differences in corals ICRS, Honolulu USA.
2013	Gene expression signatures of latitudinal acclimatisation in a reef building coral. Gordon Research Conference: Ecological and Evolutionary Genomics. Biddeford, Maine.
2012	Environmental and genetic drivers of phenotypic plasticity in corals 12th ICRS, Cairns

Conference and Symposium Organisation

2024	NMSC White paper (co-lead)
2024	RRAP 2 R&D design and planning (co-lead)
2018	Reef Futures. Florida, USA – organising committee
2018	GBR Restoration Conference. Cairns, AUS – organising committee
2018	Novel approaches to the conservation and management of coral reefs under climate change. IMCC Kuching Malaysia. Symposium organiser
2016	13 th International Coral Reef Symposium (ICRS) – Honolulu, USA. Symposium organiser: Acclimatisation and adaptation of coral reef organisms.
2013	Climate Change Adaptation of Australian Ecosystems. NCCARF, Kingscliff. Organiser and Chair.
2012	12 th International Coral Reef Symposium (ICRS) – Cairns, Australia. Symposium organiser: Coral Bleaching.
2011	Australasian Evolution Society, Townsville - organising committee

Workshop Participation and Organisation

2023	CORDAP: Landscape study on natural and assisted adaptation. Organiser
2022	Climate Change Genomics: Vulnerability, Adaptations and Applications (#ClimGen22) online workshop. British Ecological Society. Invited speaker
2018	Gene Technologies (AIMS and CSIRO), Magnetic Island. Organiser
2018	Coastal Restoration (NESP), DoEE, Canberra. Participant
2018	Setting the scene for a global reef conservation and innovation challenge. IMCC Kuching. Organiser
2017	Genetic Engineering and Synthetic Biology for Biodiversity Conservation. Heron Isl. Participant
2017	Assisted translocation as a management strategy, UC Davis US Invited presenter
2016	Workshop ICRS Hawaii: Transgenerational acclimatisation and adaptation. Participant

Selected Peer Reviewed Publications

Full publication record: [Google Scholar](#); [ORCID](#)

More than 120 peer reviewed journal articles, 8 reports and 3 book chapters.

h-index = 51; i10 index = 99; citations = 8803

** Impact Factor > 9 and * > B = Book; Rep = Report

- 2025 Marzoni MR, Josephine JV Nielsen, **LK Bay**, David G Bourne, Matthew R Nitschke, Oliver Selmoni, Hugo B Harrison Seascape Genomics Reveal Contrasting Population Structure in Sympatric and Congeneric Corals Across Thermal Clines. *Diversity and Distributions* 31 (8) e70065
- 2025 Goyen S, Chille EE, Stephens TG, Nandi S, **Bay LK**, Bhattacharya D. Green fluorescent proteins show divergent patterns among species and strains of *Porites* from the Great Barrier Reef. <https://doi.org/10.21203/rs.3.rs-6761998/v1>
- 2025** Howells EJ, D Abrego, Sebastian Schmidt-Roach, E Puill-Stephan, H Denis, S Harri, **LK Bay**, JA Burt, K Monro, Manuel Aranda Marine heatwaves select for thermal tolerance in a reef-building coral. *Nature Climate Change* 15 829 - 832
- 2025 Guillaume AS, R Ferrari, O Selmoni, VJL Mocellin, H Denis, M Naugle, EH Howells, **LK Bay**, Stéphane Joost. Harnessing Multiscale Topographic Environmental Variables for Regional Coral Species Distribution Models. *Ecology and evolution* 15 (4), e71292
- 2025* KL Black, **LK Bay**, MV Matz. A Genetic Variant of Delta-9 Desaturase Is Associated With Latitudinal Adaptation in a Coral from the Great Barrier Reef. *Molecular Ecology* 34 (3), e17634
- 2025 MM Moonier, **LK Bay**, Y Sato, V Mocellin, P Cleves, R Lister, L Thomas. Multigenerational Tracking of Reef-Building Corals Using CRISPR-Cas9 induced Genetic Barcodes and eDNA Metabarcoding. *bioRxiv*
- 2025 Heat-responsive dynamic shifts in alternative splicing of the coral *Acropora cervicornis* KH Stankiewicz, JJ Valenzuela, S Turkarslan, WJ Wu, K Gomez-Campo, ..**LK Bay**..*bioRxiv*, 2025.01.21.634199
- 2025 Nandi S, TG Stephens, EE Chille, S Goyen, **LK Bay**, D Bhattacharya. Metaproteome analysis of the coral holobiont demonstrates algal symbiont dampening under thermal stress *bioRxiv*, 2025.03.25.645042
- 2024 Naugle MS, Denis H, Mocellin VJL, Laffy PW, Popovic I, **Bay LK**, ...Heat tolerance varies considerably within a reef-building coral species on the Great Barrier Reef. *Communications earth & environment* 5 (1), 525
- 2024 Thermal tolerance traits of individual corals are widely distributed across the Great Barrier ReefH Denis, **LK Bay**, VJL Mocellin, MS Naugle, G Lecellier, SW Purcell, ...*Proceedings of the Royal Society B* 291 (2030), 20240587
- 2024* Chromosomal inversions harbour excess mutational load in the coral, *Acropora kenti*, on the Great Barrier Reef. J Zhang, NM Schneller, MA Field, CX Chan, DJ Miller, JM Strugnell, ... **LK Bay**..*Molecular Ecology* 33 (16), e17468
- 2024 Briggs ND, CA Page, C Giuliano, C Alessi, M Hoogenboom, LK Bay, ...Dissecting coral recovery: bleaching reduces reproductive output in *Acropora millepora*. *Coral Reefs* 43 (3), 557-569
- 2024* Marzoni MR, MR Nitschke, LK Bay, DG Bourne, HB Harrison. Symbiodiniaceae diversity varies by host and environment across thermally distinct reefs. *Molecular Ecology* 33 (9), e17342
- 2024** Selmoni O, **LK Bay**, M Exposito-Alonso, PA Cleves. Finding genes and pathways that underlie coral adaptation. *Trends in Genetics* 40 (3), 213-227.
- 2023 Daly J, R Hobbs, A Severati, M Nordborg, **LK Bay**, N Zuchowicz, ...Maximizing the utility of cryopreservation as an enabling technology in coral reef recovery and resilience. *Cryobiology* 113, 104672
- 2023 **Bay LK**, JC Ortiz, A Humanes, C Riginos, IB Baums, M Aranda, R Peixoto, ...CORDAP R&D technology roadmap for understanding the natural adaptation and assisted evolution of corals to climate change.
- 2023** **Bay LK**, J Gilmour, B Muir, PE Hardisty. Management approaches to conserve Australia's marine ecosystem under climate change. *Science* 381 (6658), 631-636
- 2023 Madin JS, M McWilliam, K Quigley, **LK Bay**, D Bellwood, C Doropoulos, ...Selecting coral species for reef restoration. *Journal of Applied Ecology* 60 (8), 1537-1544

- 2023** Tinoco AI, Mitchison-Field LMY, Bradford J, Renicke C, Perrin D, **Bay LK**, Pringle JR, Cleves PA. Role of the bicarbonate transporter SLC4y in stony-coral skeleton formation and evolution. *Proceedings of the National Academy of Sciences* 120 (24), e2216144120
- 2023* Davies S, Gamache MH, Howe-Kerr LJ, Kriefall NG, Baker AC, Banaszak AT, **Bay LK**, Bellantuono AJ.. Building consensus around the assessment and interpretation of Symbiodiniaceae diversity. *Building consensus around the assessment and interpretation of Symbiodiniaceae diversity*. *PeerJ* 11, e15023
- 2023 Page CA, Giuliano C, **Bay LK**, Randall CJ. High survival following bleaching underscores the resilience of a frequently disturbed region of the Great Barrier Reef. *Ecosphere* 14 (2), e4280
- 2023* Melvin A, Matias A, Popovic I, Thia JA, Cooke IR, Torda G, Lukoschek V, **Bay LK**, Kim SW, Riginos C Cryptic diversity and spatial genetic variation in the coral *Acropora tenuis* and its endosymbionts across the Great Barrier Reef. *Evolutionary Applications* 16(2) 293 - 310
- 2023 ** Marzoni MR, **Bay LK**, Bourne DG, Hoey AS, Matthews S, Nielsen JJV and Harrison HB. The effects of marine heatwaves on acute heat tolerance in corals. *Global Change Biology* 29 (2), 404-416
- 2022 ** Quigley KM, Ramsby B, Laffy P, Harris J, Mocellin V and **Bay LK**. Coral symbioses are restructured by repeated mass coral bleaching. *Science Advances*. *Science Advances* 8 (49), eabq8349
- 2022 McLeod IM, Hein MY, Babcock R, **Bay LK**, Bourne DG, Cook N. Coral restoration and adaptation in Australia: The first five years. *PLoS One* 17 (11), e0273325
- 2022 Nielsen JJV, Matthews G, Frith KR, Harrison HB, Marzoni MRE, Slaughter KL, Suggett DJ and **Bay LK** Experimental considerations of acute heat stress assays to quantify coral thermal tolerance. *Scientific Reports* 12 (1), 16831
- 2022 ** Salazar OR, Prasanna AN, Cui G, **Bay LK**, van Oppen MJH, Webster NS and Aranda M. The coral *Acropora loripes* genome reveals an alternative pathway for cysteine biosynthesis in animals. *Science Advances*. 8 (38), eabq0304
- 2022 Hobbs RJ, O'Brien JK, **Bay LK**, Severati A, Spindler R, Henley M, Quigley KM, Randall CJ, van Oppen MJH, Carter V, Zuchowicz N, Hagedorn M, Daly J. A decade of coral biobanking science in Australia - transitioning into applied reef restoration. *Frontiers in Marine Science* 9, 960470
- 2022 (Book Chapter) Howells EH, **Bay LK** and Bay RA. Identifying, Monitoring, and Managing Adaptive Genetic Variation in Reef-Building Corals under Rapid Climate Warming. In: "Coral Reef Conservation and Restoration in the Omics Age". Editors: Madeleine J. H. van Oppen, Manuel Aranda Lastra. pp 55-70
- 2022 Daly J, Hobbs RJ, Zuchowicz Nikolas, O'Brien JK, Bouwmeester J, **Bay LK**, Quigley K, Hagedorn, M. Cryopreservation can assist gene flow on the Great Barrier Reef. *Coral Reefs* 41 (2), 455-462
- 2022 P Elder H, Weis V, Montalvo-Proano J, Mocellin VJL, Baird A, Meyer E, **Bay LK**. Genetic variation in heat tolerance of the coral *Platygyra daedalea* offers the potential for adaptation to ocean warming. *Frontiers in Marine Science*. 9; <https://doi.org/10.3389/fmars.2022.925845>
- 2022 P Page CA Giuliano C **Bay LK** Randall CJ. High survival following bleaching highlights the resilience of a highly disturbed region of the Great Barrier Reef *Ecosphere* In Press
- 2021 Quigley KM, Marzoni M, Ramsby B, Abrego D, Milton G, van Oppen MJH, **Bay LK**. Variability in Fitness Trade-Offs Amongst Coral Juveniles with Mixed Genetic Backgrounds Held in the Wild. *Frontiers in Marine Science* 8 161
- 2021 Baird ME, Mongin M, Rizwi F, **Bay LK**, Cantin NE, Morris LA, Skerratt J. The effect of natural and anthropogenic nutrient and sediment loads on coral oxidative stress on runoff-exposed reefs. *Marine Pollution Bulletin* 168 112 - 409
- 2021 Marhoefer SR, Zenger KR, Strugnell JM, Logan M, van Oppen MJH, Kenkel CD, **Bay LK**. Signatures of Adaptation and Acclimatization to Reef Flat and Slope Habitats in the Coral *Pocillopora damicornis*. *Frontiers in Marine Science* 8:704709
- 2021 * **Bay LK** Howells Emily J, Ecosystem Resilience: Mapping the future for coral reefs *Elife* 10e72978
- 2021 Madin Joshua S, McWilliam Michael, Quigley Kate, **Bay LK**, Bellwood David, Doropoulos Christopher, Fernandes Leanne, Harrison Peter, Hoey Andrew S, Mumby Peter J, Selecting species for restoration in foundational assemblages *bioRxiv*
- 2020 * Quigley KM, **Bay LK**, van Oppen MJH. Genome-wide SNP analysis reveals an increase in adaptive genetic variation through selective breeding of coral. *Molecular Ecology* 29 2176-2188
- 2020 Nielsen JJV, Kenkel CD, Bourne DG, Despringhere L, Mocellin VJL, **Bay LK**. Physiological effects of heat and cold exposure in the common reef coral *Acropora millepora*. *Coral Reefs* 39 259 - 232

Commented [LB1]: ORIGINAL RESEARCH article

Front. Mar. Sci., 28 July 2022
Sec. Marine Molecular Biology and Ecology
Volume 9 - 2022
| <https://doi.org/10.3389/fmars.2022.925845>

2020 Quigley KM, Randall CJ, Van Oppen MJH, **Bay LK**. Assessing the role of historical temperature regime and algal symbionts on the heat tolerance of coral juveniles. *Biology open* **9** bio047316

2020 ** Howe-Kerr LI, Bachelot B, Wright RM, Kenkel CD, **Bay LK**, Correa AMS. Symbiont community diversity is more variable in corals that respond poorly to stress. *Global Change Biology* **26** 2220-2234

2020 Randall CJ, Negri AP, Quigley KM, Foster T, Ricardo GF, Webster NS, **Bay LK**, Harrison PL, Babcock RC, Heyward AJ. Sexual production of corals for reef restoration in the Anthropocene. *Marine Ecology Progress Series* **635** 203-232

2020 ** Fuller ZL, Mocellin VJL, Morris LA, Cantin N, Shepherd J, Sarre L, Peng J, Liao Y, Pickrell J, Andolfatto P, Matz Mikhail, **Bay LK**, Przeworski M. Population genetics of the coral *Acropora millepora*: Toward genomic prediction of bleaching. *Science* **369** 6501

2020 Randall CJ, Speaks JE, Lager C, Hagedorn M, Llewellyn L, Pulak R, Thompson J, **Bay LK**, Mead D, Heyward AJ. Rapid counting and spectral sorting of live coral larvae using large-particle flow cytometry. *Scientific Reports* **10** 44866

2020 Anthony KRN, Helmstedt KJ, **Bay LK**, Fidelman P, Hussey KE, Lundgren P, Mead D, McLeod Ian M, Mumby Peter J, Newlands Maxine. Interventions to help coral reefs under global change—A complex decision challenge. *Plos One* **15** e0236399

2020 * Kenkel CD, Mocellin VJL, **Bay LK**. Global gene expression patterns in Porites white patch syndrome: Disentangling symbiont loss from the thermal stress response in reef-building coral. *Molecular Ecology* **29** 3907-3920

2020 Conlan JA, **Bay LK**, Jones A, Thompson A, Francis DS. Seasonal variation in the lipid profile of *Acropora millepora* at Halfway Island Great Barrier Reef Coral Reefs **39** 1753-1765

2020 Ceccarelli DM, McLeod IM, Boström-Einarsson L, Bryan SE, Chartrand KM, Emslie MJ, Gibbs MT, Gonzalez Rivero M, Hein MY, Heyward A, **Bay LK**. Substrate stabilisation and small structures in coral restoration: State of knowledge and considerations for management and implementation. *PLoS One* **15** e0240846

2020 ** Cleves PA, Tinoco AI, Bradford J, Perrin D, **Bay LK**, Pringle JR. Reduced thermal tolerance in a coral carrying CRISPR-induced mutations in the gene for a heat-shock transcription factor. *Proceedings of the National Academy of Sciences* **117** 28899-28905

2020 ** Wolfe K, Anthony KRN, Babcock RC, **Bay LK**, Bourne DG, Burrows Byrne M, Deaker DJ, Diaz-Pulido G, Frade PR. Priority species to support the functional integrity of coral reefs. *Oceanography and Marine Biology – An Annual Review*

2020 (Rep) Cantin NE, Baird ME, Morris LA, Ceccarelli DM, Mocellin VJL, Ferrari R, Mongin M and **Bay LK**. Assessing the linkages between water quality and coral bleaching on the Great Barrier Reef. Report to the National Environmental Science Program. Reef and Rainforest Research Centre Limited, Cairns.

2019 (Rep) Quigley et al: The traits of surviving corals. Report to the National Environmental Science Program. Reef and Rainforest Research Centre Limited, Cairns.

2019 Rocker MM, Kenkel CD, Francis DS, Willis BL, **Bay LK**. Plasticity in gene expression and fatty acid profiles of *Acropora tenuis* reciprocally transplanted between two water quality regimes in the central Great Barrier Reef Australia. *Journal of Exp Marine Biology and Ecology* **511** 40-53

2019 Rocker MM, Francis DS, Fabricius KE, Willis BL, **Bay LK**. Temporal and spatial variation in fatty acid composition in *Acropora tenuis* corals along water quality gradients on the Great Barrier Reef Australia. *Coral Reefs* **38** 215-228

2019 ** Wright RM, Mera H, Kenkel CD, Nayfa M, **Bay LK**, Matz MV. Positive genetic associations among fitness traits support evolvability of a reef-building coral under multiple stressors. *Global Change Biology* **25** 3294-3304

2019 ** Morris LA, Voolstra CR, Quigley KM, Bourne DG, **Bay LK**. Nutrient availability and metabolism affect the stability of coral–Symbiodiniaceae symbioses. *Trends in microbiology* **27** 678-689

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