

Maia Raymundo

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Department of Ecology and Evolutionary Biology

Princeton University

2021-current

Princeton University

David H. Smith Conservation Research Postdoctoral Fellow
Project: Assessing climate change resilience of forests following key frugivore loss and identifying priority areas for re-wilding
Mentors/Partners: Dr. Robert Pringle, Dr. Susan Cordell, Guam Department of Aquatic and Wildlife Resources

Education

2019

University of Queensland

PhD in Ecology
Dissertation: The role of dispersal in invaded plant community assembly
Advisor: Dr. Margaret Mayfield

2009, 2014

University of Guam

B.A. & MSc. in Biology
Thesis: A molecular and ethno-biological study of the Philippine Bare-backed fruit bat: An integrated approach
Advisor: Dr. Ross Miller

Grants, Awards, and Fellowships

2021-2023 David H. Smith Conservation Research Postdoctoral Fellowship
2019 Council of Australasian Weed Society Student Travel Grant recipient
2018-2019 University of Queensland Candidate Development Award recipient
2017-2018 Joan Allsop Grant recipient
2017 Northern Agricultural Catchments Council grant recipient for Western Australia
Threatened Species Forum (declined)
2016 1st Place: Australian Flora Foundation Young Scientist Award, Ecological Society of Australia
2015-2019 University of Queensland International Postgraduate Full Tuition Scholarship
2015-2019 University of Queensland International Postgraduate Living Allowance Scholarship
2014 University of Guam Presidential Thesis Awardee
2012-2013 National Geographic Young Explorer
2009 1st Place: OTS Symposium Best Research Paper
2009 Organization for Tropical Studies – Summer REU Fellow
2008 2nd Place: President’s Prize Poster Award, Entomology Society of America Conference
2007-2009 University of Guam Dean’s List for Academic Excellence
2007-2009 National Institutes of Health – Research Initiatives for Scientific Enhancement Fellow

Publications

Caballes, C.F., Messmer, V., Raymundo, M.L., Pratchett, M.S. 2021. Prevalence and severity of sub-lethal injuries in crown-of-thorns sea stars relative to marine reserves in The Great Barrier Reef. *Aquatic Conservation: Marine and Freshwater Ecosystem*

Caballes, C.F., Pratchett, M.S., Raymundo, M.L., Rivera-Posada, J.A. 2017. Environmental tipping points for sperm motility, fertilization, and embryonic development in the crown-of thorns starfish, *Acanthaster cf. solaris*. *Diversity* 9(1): 1–18.

- Castro-Díez, P., et al. 2019. Global effects of non-native tree species on multiple ecosystem services. *Biological Reviews*, 94(4), 1477-1501.
- Germain, R. M., Urquhart-Cronish, M., Jones, N.T., Mayfield, M.M., & Raymundo, M. 2022. The strength and direction of local (mal)adaptation depends on neighbour density and the environment. *Journal of Ecology*
- Pratchett, M.S., et al. 2021. Knowledge Gaps in the Biology, Ecology and Management of Pacific Crown-of-Thorns Starfish, *Acanthaster cf. solaris*, on Australia's Great Barrier Reef. *The Biological Bulletin*
- Raymundo, M.L., Pastore, A., HilleRisLambers, J. & Mayfield, M.M. 2021. Annual rainfall variation and dispersal limitation combine to alter invaded plant community diversity, dominance hierarchies and seeding phenology. *Climate Change Ecology*
- Raymundo, M.L. & C.F. Caballes. 2016. An insight into bat hunter behavior and perception with implications for the conservation of the critically endangered Philippine bare-backed fruit bat. *Journal of Ethnobiology* 36(2): 382–394.
- Raymundo, M.L. & C.F. Caballes. 2013. Predator exposure and size-related variation in web building and web-decorating behavior in *Argiope appensa*. *Micronesica* 7:1–15
- Raymundo, M.L. & R.H. Miller. 2012. Little fire ant, *Wasmannia auropunctata* (Roger) (Hymenoptera: Formicidae), established at several locations on Guam. *Proceedings of the Hawaiian Entomological Society* 44:85–87
- Raymundo, M.L. 2009. Plant functional traits as indicators of resistance or resilience to climate change. OTS-NAPIRE Research Report 111–122 (Non peer-reviewed)
- Suarez-Castro, F., Raymundo, M., Bimler, M. & Mayfield, M.M. 2022. Using multi-scale spatially explicit frameworks to understand the relationship between functional diversity and species richness. *Ecography*

In review, submitted, or in prep.

- Raymundo, M.L. & Mayfield, M.M. (in prep). The role of novel ant interactions in the assembly of invaded communities.
- Raymundo, M.L., Caballes, C.F., Lindstrom, D. (in prep). Taxonomically distinct critically endangered fruit bat calls for active conservation of species.

Relevant Work Experience

- ARC Centre of Excellence for Coral Reef Studies, James Cook University
 - Position: Research Associate (2020-2021)
 - Description: Data collection and analyses, laboratory experiments, manuscript write-up
- The University of Queensland
 - Position: PhD student (2015 – 2019)
 - Description: Data collection, field experimental set-up, laboratory experiments, advanced statistical analyses and ecological modeling; presentations, manuscript write-up, grant writing
- The University of Queensland; Athena Swan Grant Proposal for Gender Equity in STEMM
*Received Athena Swan Institutional Bronze Award
 - Position: Data analyst (2018 – 2019)
- Plant Pathology Lab, Gov't. of Guam Department of Agriculture & University of Guam
 - Position: Lab Manager & Research Associate (2014 – 2015)
 - Description: Laboratory experience in plant pathology, sterile conditions, tissue-culture
- Garcia and Associates Natural and Cultural Resource Consultants, Guam
 - Position: Contractual Biologist/Environmental Consultant for plant, bat, bird surveys (2014)

- Description: Conducting regular bat and bird visual surveys at dawn and dusk; plant/habitat surveys, creating risk assessments to bats and birds from construction and development
- USDA-APHIS, University of Guam & Commonwealth of the Northern Marianas Islands
 - Position: Entomologist (2010 – 2014); Graduate student researcher (2011 – 2014)
 - Description: Conducting regular surveys for invasive ants; ant taxonomy; surveys of plants in varying habitat types
- National Geographic Society Young Explorers Project, Negros Island, Philippines
 - Position: Principal Investigator (2012 – 2013)
 - Conducting bat surveys via mist-netting; handling and releasing fruit bats; minimally invasive DNA sampling techniques via hair follicle pulls; molecular techniques (DNA extraction, PCR, sequencing) and phylogenetics
- National Science Foundation – Ecology of Bird Loss (NSF-EBL), Guam & CNMI
 - Position: Field Technician (2009 – 2010)
 - Description: Setting-up experimental bird-exclusion plots; conducting vegetation surveys (identification, functional trait measurements); germination experiments
- Organization for Tropical Studies, Costa Rica
 - Position: Research Fellow (June – August 2009)
 - Description: Conducting mist-netting surveys of bats and birds; plant surveys in various habitat types
- NIH-RISE, University of Guam
 - Position: Undergraduate Research Scholar (2007–2009)
 - Description: Conducting regular invasive ant surveys, ant taxonomy, and plant surveys

Symposia and Workshops

- Advanced Statistical Analysis course, Australian Institute of Marine Science, Townsville, Australia
 - Bayesian, non-linear, multivariate analyses, regression trees
- University of Guam College of Natural and Applied Sciences 1st Undergraduate STEM Conference, 2021, Guam
 - Panel Speaker: Imposter Syndrome in the PhD: Finding Strength in Identity
- Ecology and Management of Alien Plant Invasions 2019, Prague, Czechia
 - Raymundo, M.L., Dwyer, J.D. & Mayfield, M.M. Native seed recruitment limitation in an invaded community: consequences for community assembly
- Ecology Society of Australia Annual Conference 2018, Brisbane, Queensland
 - Raymundo, M.L. & Mayfield, M.M. The role of ants in novel community assembly
- Ecology Society of America Annual Conference 2018, New Orleans, Louisiana
 - Raymundo, M.L. & Mayfield, M.M. The role of ants in novel community assembly
- University of British Columbia, Vancouver, 2018 (speaker)
- Ecology Society of Australia Annual Conference 2017, Hunter Valley, New South Wales
 - Raymundo, M.L., HilleRisLambers, J.K., Mayfield, M.M. Dispersal drives exotic dominance during drought
- Transmitting Science, Barcelona, Spain, March-April 2017
 - Workshop on Ecological Niche Modeling,
- Ecology Society of Australia Annual Conference 2016, Fremantle, Western Australia
 - Raymundo, M.L., Dwyer, J.D. & Mayfield, M.M. Mechanisms limiting seed recruitment in a novel system
- OTS-NAPIRE Symposium, Las Cruces, Costa Rica

- Raymundo, M.L. 2009. Plant Functional Traits as Indicators of Resistance or Resilience to Climate Change.
- Entomology Society of America Annual Conference, Reno, Nevada
 - Raymundo, M.L. & Miller, R.H. 2008. Ant and plant biodiversity in karst and beach flat habitats on Guam

Media

- Research featured in National Geographic Learning Environmental Science Textbook, 15th & 16th ed.
- Interview with Radio Australia on Philippine bare-backed fruit bat conservation
- Eureka Alert (https://www.eurekalert.org/pub_releases/2012-10/uog-ugs100412.php)

Miscellaneous

- St. Vincent de Paul Refugee Assistance Program volunteer tutor for refugees and asylum seekers, Townsville, Australia
- Biosecurity Plan for Invasive Ants in the Pacific working group member
- Manuscript Reviewer: Ecology Letters; Oikos, International Journal of Biodiversity and Conservation
- Grant Reviewer: National Geographic Early Career Research Grants
- Placement experience (UQ CDA), Smithsonian Marine Station, Fort Pierce, Florida
- PADI certified open water diver
- Languages: English (native/bilingual), Cebuano (native/bilingual), Tagalog (fluent)

References

PhD Supervisor:
 Prof. Margaret Mayfield
 Head of School
 School of Biological Sciences
 University of Queensland

Master's Supervisor:
 Prof. Ross Miller
 Professor of Entomology
 College of Natural and Applied Sciences
 University of Guam

Master's co-supervisor:
 Assoc. Prof. Daniel Lindstrom
 College of Natural and Applied Sciences
 University of Guam