Lisa C. McManus

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EDUCATION

2012-2017 Ph.D. in Ecology and Evolutionary Biology, Princeton University
2006-2010 B.S. in Marine and Atmospheric Science, University of Miami, *summa cum laude*

PROFESSIONAL EXPERIENCE

2020-present Assistant Research Professor
Hawai'i Institute of Marine Biology, University of Hawai'i at Manoa
2017-2020 Postdoctoral Associate
Department of Ecology, Evolution, and Natural Resources, Rutgers University

HONORS AND AWARDS

2018 National Institute for Mathematical and Biological Synthesis Short-term Visit ($2000)
2015 Princeton EEB Women Scientists in Conservation Biology Research Award ($6000)
2015 Best Poster: NMFS-Sea Grant Fellowship Symposium
2014-2017 NMFS-Sea Grant Fellowship in Population and Ecosystem Dynamics ($96,000)
NOAA Supervisor: Rusty Brainard, Coral Reef Ecosystem Program, NMFS
2014-2017 National Defense Science and Engineering Graduate Fellowship ($250,000)
2014 Princeton Environmental Institute Walbridge Fund Graduate Award ($7500)

PEER-REVIEWED PUBLICATIONS

McManus LC, Forrest DL, Tekwa E, Schindler DE, Walsworth TE, Colton MA, Webster MS, Essington TE, Palumbi SR, Mumby PJ, and Pinsky ML. (2021). Evolution and connectivity influence the persistence and recovery of coral reefs under climate change in the Caribbean, Southwest Pacific, and Coral Triangle. *Global Change Biology* 00:1-15. 10.1111/gcb.15725

McManus LC, Tekwa E, Schindler DE, Walsworth TE, Colton MA, Webster MS, Essington TE, Palumbi SR, Mumby PJ, Forrest DL, and Pinsky ML. (2021). Evolution reverses the effect of network structure on metapopulation persistence. *Ecology* 102(7), e03381. 10.1002/ecy.3381

Tekwa EW, **McManus LC**, Greiner A, Colton MA, Webster MS, and Pinsky ML. (2021). Geometric Analysis of Regime Shifts in Coral Reef Communities. *Ecosphere* 12(1):e03319. 10.1002/ecs2.3319

McManus LC, Vasconcelos VV, Levin SA, Thompson DM, Kleypas JA, Castruccio FS, Curchitser EN, Watson JR. (2020). Extreme temperature events will drive coral decline in the Coral Triangle. *Global Change Biology* 26:2120-2133. 10.1111/gcb.14972

McManus LC, Watson JR, Vasconcelos VV and Levin SA. (2019). The stability and recovery of coral-algae systems: the importance of recruitment seasonality and grazing influence. *Theoretical Ecology* 12:61-72. 10.1007/s12080-018-0388-x

McManus LC, Yurek S, Teare PB, Dolan TE and Serafy JE. (2014). Killifish habitat suitability as a measure of coastal restoration performance: integrating field data, behavioral trials and simulation. *Ecological Indicators* 44:173-181.

OTHER PUBLICATIONS

McManus JW and **McManus LC**. 2012. Proposed Dredging for an Aircraft Carrier Turning Basin in Apra Harbor, Guam: Options for Assessment and Mitigation. Technical Report. Engineer Research and Development Center, U.S. Army Corps of Engineers. 121 pages.

MANUSCRIPTS UNDER REVIEW (*=Co-first author)

DeFilippo LB*, **McManus LC***, Pinsky ML, Colton MA, Webster MS, Essington TE, Palumbi SR, Mumby PJ and Schindler DE. Limited potential for demographic restoration and assisted evolution to build climate resilience in coral reefs. *In review*, Nature Ecology and Evolution.

McManus JW & **McManus LC**. CoralPatchSim: Simulating potential impacts of disturbances on the resilience of patches of coral and associated organisms, and related ecosystem services. *In revision*, Methods in Ecology and Evolution.

MANUSCRIPTS IN PREPARATION (*=Co-first author)

Forrest DL*, **McManus LC***, Tekwa E, Schindler DE, Walsworth TE, Colton MA, Webster MS, Essington TE, Palumbi SR, Mumby PJ, and Pinsky ML. Conservation for evolving coral populations.

PRESENTATIONS

2021 **NOAA MPA Center Webinar.** Invited talk. Coral reef eco-evolutionary dynamics: Adaptation and connectivity in MPA networks under future climate change.

2020 **School of Aquatic and Fisheries Sciences, University of Washington.** Invited talk. Coral reef eco-evolutionary dynamics: theory and conservation applications.

2019 **Smithsonian Environmental Research Center**, Edgewater, MD. Invited talk. Coral reef dynamics in a changing world: a multiscale perspective.

2019 **Department of Ecology, Evolution and Natural Resources, Rutgers University**, New Brunswick, NJ. Invited talk. Coral reef dynamics in a changing world: a multiscale perspective.

2019 **Ecological Society of America Annual Meeting**, Louisville, KY. Contributed talk. Dispersal network structure constrains eco-evolutionary response under directed environmental change.

2018 **Ecological Society of America Annual Meeting**, New Orleans, LA. Invited talk. Spatial marine metacommunity connectivity and the response of the Coral Triangle to climate change.

2018 **Ocean Sciences Meeting**, Portland, Oregon. Contributed talk. Ecological implications of thermal stress and larval connectivity in the Coral Triangle.

2016 **International Coral Reef Symposium**, Honolulu, HI. Contributed talk. Larval dispersal as a mechanism for coral persistence on reef communities.

2015 **Ecological Society of America Annual Meeting**, Baltimore, MD. Contributed talk. Larval dispersal as a mechanism for coral persistence on reef metacommunities.

2015 **Pacific Islands Fisheries Science Center**, Honolulu, HI. Invited talk. Linking dispersal scales, genetic differentiation and persistence in corals.

MENTORING

Graduate Committees

Nakoa Goo, University of University of Hawai‘i at Manoa (2020-present)
Leon Tran, University of University of Hawai‘i at Manoa (2020-present)
Devynn Wulstein, University of University of Hawai‘i at Manoa (2020-present)

PROFESSIONAL ASSOCIATIONS

International Society for Reef Studies, Ecological Society of America, Association for the Sciences of Limnology and Oceanography

SKILLS

Scientific Diver: 300+ logged scientific dives
Programming languages – Python, Mathematica, R, MATLAB, Latex
Foreign languages – Filipino (native)

SERVICE

Journal Reviewer, American Naturalist, Global Ecology and Biogeography, Theoretical Ecology, Nature Climate Change, Journal of Applied Ecology
Proposal Reviewer, NSF Understanding Rules of Life
Proposal Panelist, NSF Convergence Accelerator
Mentor, Rutgers Future Scholars Internship, Rutgers University (2018)
Volunteer Instructor, New Brunswick High School STEM Club (2018)
Judge, Build It Better Design Challenge, New Brunswick High School STEM Club (2018, 2019)
Organizer, Theoretical Ecology Lab Tea Seminar Series, Princeton University (2013-2014)
Organizer, Conservation Book Club, Princeton University (2013-2015)