

MARY KRISTEN DONOVAN

Center for Global Discovery and Conservation
Science
School of Geographical Science and
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Arizona State University
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<https://donovanlab.org/>
<https://github.com/Donovan-Lab-at-ASU>

EDUCATION

PhD Zoology, University of Hawai'i at Mānoa (2017)
MSc Zoology, University of Hawai'i at Mānoa (2012)
BA Biology, College of Creative Studies, University of California Santa Barbara (2008)

ACADEMIC AND PROFESSIONAL APPOINTMENTS

2021- Assistant Professor, Center for Global Discovery and Conservation Science, School of Geographical Science and Urban Planning, Arizona State University
2021- Senior Global Futures Scientist, Julie Ann Wrigley Global Futures Laboratory, Arizona State University
2017- Principal Investigator, Hawai'i Monitoring and Reporting Collaborative
2018-2020 Postdoctoral Researcher, Marine Science Institute, University of California Santa Barbara
2017-2018 Postdoctoral Researcher, State of Hawai'i Division of Aquatic Resources & Hawai'i Institute of Marine Biology, University of Hawai'i at Mānoa
2015-2017 Population and Ecosystem Dynamics Fellow, National Marine Fisheries Service & University of Hawai'i Sea Grant
2013-2017 Graduate Research Assistant, Ocean Tipping Points Project, University of Hawai'i at Mānoa
2012-2015 Lead Analyst, Global Coral Reef Monitoring Network, International Union for the Conservation of Nature
2009-2012 Graduate Research Assistant, Hawai'i Cooperative Fisheries Research Unit, University of Hawai'i at Mānoa
2008-2012 Marine Ecology Specialist, NOAA Pacific Islands Fisheries Science Center
2004-2008 Research Technician, Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) & Marine Science Institute, University of California Santa Barbara

PUBLICATIONS (*mentee)

Peer Reviewed

40) **Donovan MK**, Counsell CWW, Donahue MJ, Lecky J, Gajdzik L, Marcoux S, Sparks S, Teague C. Managing herbivores for reef resilience. *Proceedings of the Royal Society – Biology* In press [[pre-print](#)]

- 39) Winston M*, Fuller K, Neilson BJ, **Donovan MK** (2023) Complex drivers of invasive macroalgae boom and bust in Kāneʻohe Bay, Hawaiʻi. *Marine Pollution Bulletin* 197: 115744
- 38) Gove JM, Williams GJ, Lecky J, Brown E, Conklin E, Counsell C, Davis G, **Donovan MK**, Falinski K, Kramer L, Kozar K, Li N, Maynard JA, McCutcheon A, McKenna SA, Neilson BJ, Safaie A, Teague C, Whittier B, Asner A (2023) Coral reefs benefit from reduced land-sea impacts under ocean warming. *Nature* 621: 536–542
- 37) Frazier A, Kedron P, **Donovan MK** (2023) Advancing a science of scaling in landscape ecology. *Landscape Ecology* 38: 613-617
- 36) Schmitt MH, Stears K, **Donovan MK**, Burkepille DE, Thompson DI (2022) Integrating herbivore assemblages and woody plant cover in an African savanna to reveal how herbivores respond to ecosystem management. *PLoS One* 17(8): e0273917
- 35) Winston W*, Oliver T, Couch C, **Donovan MK**, Asner GP, Conklin E, Fuller L, Grady BW, Huntington B, Kageyama K, Kindinger TL, Kozar K, Kramer L, Martinez T, McCutcheon A, McKenna S, Rodgers K, Shayler CK, Vargas-Angel B, Zgliczynski B (2022) Coral taxonomy and local stressors drive bleaching prevalence across the Hawaiian Archipelago in 2019. *PLoS One* 17(9): e0269068
- 34) **Donovan MK**, Alves C, Burns J, Drury C, Meier OW, Ritson-Williams R, Cunning R, Dunn RP, Goodbody-Gringley G, Henderson LM, Knapp ISS, Levy J, Logan CA, Mudge L, Sullivan C, Gates RD, Asner GP (2022) From polyps to pixels: understanding coral reef resilience to local and global change across scales. *Landscape Ecology* 38: 737-752
- 33) van Woesik R, Shlesinger T, Grottoli AG, Toonen RJ, Vega Thurber R, Warner M, Hulver AM, Chapron L, McLachlan RH, Albright R, Crandall E, DeCarlo TM, **Donovan MK**, Eirin-Lopez J, Harrison HB, Heron SF, Huang D, Humanes A, Krueger T, Madin JS, Manzello D, McManus LC, Matz M, Muller EM, Rodriguez-Lanetty M, Vega-Rodriguez M, Voolstra CR, Zaneveld J (2022) Coral-bleaching responses to climate change across biological scales. *Global Change Biology* 28(14): 4229-4250
- 32) Cramer KL, **Donovan MK**, Jackson JBC, Greenstein BJ, Korpanty CA, Cook, J, Pandolfi JM (2021) The transformation of Caribbean coral communities since humans. *Ecology and Evolution* 11(15): 10098-10118
- 31) **Donovan MK**, Burkepille DE, Kratochwill C, Shlesinger T, Sully S, Oliver TA, Hodgson G, Freiwald J, van Woesik R (2021) Local conditions magnify coral loss after marine heatwaves. *Science* 372(6545): 977-980 ***featured on the cover**
- 30) Christie AP, Abecasis D, Adjeroud M, ... **Donovan MK**, ... Sutherland WJ (2020) Quantifying and addressing the prevalence and bias of study designs in the environmental and social sciences. *Nature Communications* 11(6377)
- 29) Friedlander AM, **Donovan MK**, DeMartini EE, Bowen BW (2020) Dominance of endemics in the reef fish assemblages of the Hawaiian Archipelago. *Journal of Biogeography* 47: 2584-2596
- 28) Oleson KLL, Bagstad KJ, Fezzi C, Barnes MD, **Donovan MK**, Falinski KA, Gorospe KD, Htun Hla, Lecky J, Villa F, Wong T (2020) Linking land and sea through ecological-economic model of coral reef recreation. *Ecological Economics* 117(106788)
- 27) Lester SE, Rassweiler A, McCoy SJ, Dubel AK, **Donovan MK**, Miller MW, Miller SD, Ruttenberg BI, Samhuri JF, Hay ME (2020) Caribbean reefs of the Anthropocene: variance in ecosystem metrics indicate bright spots on coral depauperate reefs. *Global Change Biology* 26(9): 4785-4799

- 26) Burkepile DE, Schmitt MH, Stears K, **Donovan MK**, Thompson DI (2020) Shared insights across the ecology of coral reefs and African savannas: are parrotfish wet wildebeest? *BioScience*, biaa063
- 25) **Donovan MK**, Adam TC, Shantz AA, Munsterman KS, Rice MM, Speare KE, Schmitt RJ, Holbrook SJ, Burkepile DE (2020) Nitrogen pollution interacts with heat stress to increase coral bleaching across the seascape. *Proceedings of the National Academy of Sciences* 117 (10) 5351-5357
- 24) Cramer KL, Greenstein BJ, **Donovan MK**, Jackson JBC, Korpanty CA, Pandolfi JM (2020) Widespread loss of Caribbean acroporid corals was underway before coral bleaching and disease outbreaks. *Science Advances* 6(17):eaax9395
- 23) Friedlander AM, **Donovan MK**, Koike H, Murakawa P, Goodell W (2019) Spatial and temporal patterns in Hawai'i's marine protected areas. *Aquatic Conservation* 29(S2):103-117
- 22) Chung AE, Wedding LM, Meadows A, Moritsch MM, **Donovan MK**, Gove J, Hunter C (2019) Prioritizing reef resilience through spatial planning following a mass coral bleaching event. *Coral Reefs* 38(4):837-850
- 21) Sully S, Burkepile DE, **Donovan MK**, Hodgson G, van Woesik R (2019) Coral bleaching: a global analysis of the past two decades. *Nature Communications* 10: 1264
- 20) Jouffray JB, Wedding LM, Norström AV, **Donovan MK**, Williams GJ, Crowder LB, Friedlander AM, Erickson A, Graham NAJ, Gove JM, Kappel CV, Kittinger JN, Lecky J, Oleson KL, Selkoe KA, White C, Williams ID, Nyström M (2019) Parsing human and biophysical drivers of coral reef regimes. *Proceedings of the Royal Society – Biology* 286(1896)
- 19) **Donovan MK**, Friedlander AM, Lecky J, Jouffray JB, Williams GJ, Wedding LM, Crowder LB, Erickson A, Graham NAJ, Gove JM, Kappel CV, Karr K, Kittinger JN, Norström AV, Nyström M, Oleson KL, Stamoulis KA, White C, Williams ID, Selkoe KA (2018) Combining fish and benthic communities into multiple regimes reveals complex reef dynamics. *Scientific Reports* 8: 16943
- 18) Weijerman M, Veazey L, Delevaux J, **Donovan MK**, Falinski K, Lecky J, Vache K, Yee S, Oleson KLL (2018) Managing local stressors for coral reef condition and ecosystem services delivery under climate scenarios. *Frontiers in Marine Science*. DOI: 10.3389/fmars.2018.00425
- 17) Stamoulis KA, Delevaux JMS, Williams ID, Poti M, Lecky J, Costa B, Kendall MS, Pittman SJ, **Donovan MK**, Wedding LM, Friedlander AM (2018) Seascape models reveal places to focus coral reef fisheries management. *Ecological Applications* 28(4): 910-925
- 16) Wedding LM, Lecky J, Gove JM, Walecka HR, **Donovan MK**, Williams GJ, Jouffray JB, Crowder LB, Erickson A, Falinski K, Friedlander AM, Kappel CV, Kittinger JN, McCoy K, AV Norström, M Nyström, Oleson KLL, Stamoulis K, White C, Selkoe KA (2018) Advancing the integration of spatial data to map human and natural drivers on coral reefs. *PLoS One* 13(3): e0189792
- 15) DeMartini EE, Howard KG, Andrews AH, Taylor BM, Lou DC, **Donovan MK** (2017) Comparative growth rates, longevities, and ages at maturity and sex change for parrotfishes of Hawaii, with bomb radiocarbon validation for two species. *Canadian Journal of Fisheries and Aquatic Sciences* 75(4): 580-589
- 14) Friedlander AM, **Donovan MK**, Stamoulis KA, Williams ID, Brown EK, Conklin EJ, DeMartini EE, Rodgers KS, Sparks RT, Walsh WJ (2017) Human-induced gradients of reef fish declines in the Hawaiian Archipelago viewed through the lens of traditional management. *Aquatic Conservation* 28(1): 146-157
- 13) Schemmel E, **Donovan MK**, Wiggins C, Anzivino M, Friedlander AM (2016) Reproductive life history of roi, the introduced peacock grouper (*Cephalopholis argus*, Bloch and Schneider 1801), in Hawaii. *Journal of Fish Biology* 89(2): 1271-1284

- 12) **Donovan MK**, Friedlander AM, Usseglio P, Goodell W, Iglesias I, Schemmel E, Stamoulis K, Filous A, Giddens J, Kamikawa K, Koike H, McCoy K, Wall C (2016) Effects of gear restriction on the abundance of juvenile fishes along sandy beaches in Hawai‘i. *PLoS One* 11(5): e0155221.
- 11) Salinas de León P, Acuña-Marrero D, Rastoin E, Friedlander AM, **Donovan MK**, Sala E (2016) Largest global shark biomass found in the northern Galápagos Islands of Darwin and Wolf. *PeerJ* 4:e1911
- 10) Selkoe K, Gaggiotti O, Treml E, Wren J, **Donovan MK**, Hawaii Reef Connectivity Consortium, Toonen R (2016) The DNA of coral reef biodiversity – predicting and protecting genetic diversity of reef assemblages. *Proceedings of the Royal Society – Biology* 283: 2016035
- 9) **Donovan MK**, Friedlander AM, Harding KK, Schemmel E, Filous A, Kamikawa K, Torkelson N (2015) Ecology and niche partitioning of two bonefish species in Hawai‘i. *Environmental Biology of Fishes* 98(11): 2159-2171
- 8) Kamikawa K, Friedlander AM, Harding KK, Filous A, **Donovan MK**, Schemmel E (2015) Bonefishes in Hawai‘i and the importance of angler-based data to inform fisheries management. *Environmental Biology of Fishes* 98(11): 2147-2157
- 7) Jackson JBC, **Donovan MK**, Cramer KL, Lam VV (editors) (2014) Status and Trends of Caribbean Coral Reefs: 1970-2012. Global Coral Reef Monitoring Network. IUCN, Switzerland, 306 p.
- 6) Giddens J, Friedlander AM, Conklin E, Wiggins C, Stamoulis K, **Donovan MK** (2014) Experimental removal of the introduced predatory grouper, roi (*Cephalopholis argus*) in Puako, Hawaii: methods for assessing and managing marine invasive species. *Marine Ecology Progress Series* 511: 209-221.
- 5) **Donovan MK**, AM Friedlander, EE DeMartini, MJ Donahue, ID Williams (2013) Demographic patterns in the peacock grouper (*Cephalopholis argus*), an introduced Hawaiian reef fish. *Environmental Biology of Fishes* 96: 981-994.
- 4) Walsh SM, Hamilton SL, Ruttenburg BI, **Donovan MK**, Sandin SA (2012) Fishing top predators indirectly affects condition and reproduction in a reef fish community. *Journal of Fish Biology* 80(3): 519-537
- 3) Ruttenburg BI, Hamilton SL, Walsh SM, **Donovan MK**, Friedlander AM, DeMartini EE, Sandin SA (2011) Predator-induced demographic shifts in coral reef fish communities. *PLoS One* 6(6): e21062. *Top 25% most cited articles in *PLoS One*
- 2) Merritt D, **Donovan MK**, Kelley C, Waterhouse L, Parke M, Wong K, Drazen JC (2011) BotCam: A baited camera system for non-extractive monitoring of bottomfish species. *Fishery Bulletin* 109(1): 56-67.
- 1) Vermeij MJA, Dailer ML, Walsh SM, **Donovan MK**, Smith CM (2010) The effects of trophic interactions and spatial competition on algal community composition on Hawaiian coral reefs. *Marine Ecology* 31(2): 291-199.

Government and Technical Reports

- Chung A, Meadows A, **Donovan MK**, Most R, Shea A, Delaney D, McGuire G, Davidson K (2019) Roadmap to 30x30: Achieving effective management in 30% of Hawai‘i’s nearshore waters by 2030. Hawai‘i Division of Aquatic Resources and University of Hawai‘i, Hawai‘i Coral Reef Initiative.
- Maynard J, Gove J, Tracey D, Johnson J, Lecky J, Conklin E, van Hooidonk R, **Donovan M**, Kleiber D, Brainard R, Williams I, Swanson D, Oliver T, Walsh W, Wiggins C, Kramer L (2019) Coral reefs vulnerability to climate change in West Hawai‘i. NOAA Technical Report

- Stamoulis KA, Poti M, Delevaux JMS, **Donovan MK**, Friedlander A, Kendall MS. (2016) Chapter 4: Fishes - Reef Fish. pp. 156-196. In: Costa BM, Kendall MS (eds.), Marine Biogeographic Assessment of the Main Hawaiian Islands. Bureau of Ocean Energy Management and National Oceanic and Atmospheric Administration. OCS Study BOEM 2016-035 and NOAA Technical Memorandum NOS NCCOS 214. 359 pp.
- Brainard RE, Asher J, Blyth-Skyrme V, Coccagna EF, Dennis K, **Donovan MK**, et al. (2012) Coral reef ecosystem monitoring report of the Mariana Archipelago: 2003–2007. NOAA Fisheries, Pacific Islands Fisheries Science Center, PIFSC Special Publication, SP-12-01, 1019 p.
- Parke M, C Kelley, A Ramirez, **MK Donovan**, H Wang, J Rooney (2011) Review of scientific information for the EFH and HAPC designations for the Federal Fishery Management Unit species in the Pacific Islands Region. Pacific Islands Fisheries Science Center Administrative Report.
- Donovan MK**, Williams ID, Friedlander AM, Longnecker K, Beets JP, Bowen BW, Franklin EC (2011) Catalog of coral reef life history specimens for the Hawaiian Islands. Pacific Islands Fisheries Science Center Administrative Report, H-11-05, 13 p.

EXTRAMURAL FUNDING (\$3,181,055 total)

- | | |
|-----------|--|
| \$650,000 | Hawai'i Community Foundation
Principal Investigator – 2023-2025
<i>Data driven support for collaborative and community centered monitoring and decision making for Hawai'i Holomua Marine Initiative</i> |
| \$412,639 | National Science Foundation, Human-Environment and Geographical Sciences
Co-PI, with Katie Cramer (PI) and Amy Frazier (co-PI) – 2023-2026
<i>The role of land use change in the decline and recovery of Caribbean reefs</i> |
| \$79,999 | State of Hawai'i, Department of Land and Natural Resources
Principal Investigator – 2022-2024
<i>Data streams to support effective management of Hawai'i nearshore marine resources</i> |
| \$20,000 | State of Hawai'i, Department of Land and Natural Resources
Principal Investigator – 2023-2024
<i>Spatial and temporal patterns of Hawai'i herbivore fisheries</i> |
| \$196,376 | National Fish and Wildlife Foundation
Principal Investigator – 2022-2024
<i>Quantifying thresholds for reef resilience using high resolution monitoring data in Hawai'i</i> |
| \$42,461 | Harold K.L. Castle Foundation
Principal Investigator – 2022-2023
<i>Fisher-based monitoring of Hawai'i nearshore fisheries</i> |
| \$681,908 | Hawai'i Community Foundation
Principal Investigator – 2021-2023
<i>Data driven support for collaborative and community centered monitoring and decision making for Hawai'i Holomua: Marine 30x30</i> |
| \$44,755 | Harold K.L. Castle Foundation
Principal Investigator – 2021 |

Science in support of implementing statewide fisheries rules for herbivorous fishes, a proposal by the Hawaii Monitoring and Reporting Collaborative (HIMARC)

- \$230,680 Western Pacific Fisheries Management Council
Principal Investigator – 2020-2022
Ecosystem-based fisheries management thresholds for Hawai‘i nearshore fisheries
- \$99,700 Harold K.L. Castle Foundation
Co-led with Megan Donahue – 2019-2020
Science to support effectively managing Hawaii’s nearshore marine resources
- \$56,549 NOAA Coral Reef Conservation Program
Co-led with Megan Donahue – 2018-2019
HIMARC Phase II: Estimating indicators and reference points in support of effectively managing Hawai‘i’s nearshore marine resources
- \$93,848 Harold K.L. Castle Foundation
Principal Investigator – 2017-2018
Science to support effectively managing Hawaii’s nearshore marine resources
- \$104,883 NMFS-Sea Grant Fellowship in Population & Ecosystem Dynamics
Principal Investigator – 2015-2017
Ecological indicators of coral reefs across multiple spatial scales in Hawai‘i
- \$55,013 NOAA Coral Reef Conservation Program
Primary author (Principal Investigator Alan Friedlander) – 2014-2016
Identifying indicators and thresholds for reef resilience in the Hawaiian Archipelago
- \$1,000 Best Student Paper, 37th Albert L. Tester Symposium (2012)
Multi-scale demographic trends in an introduced Hawaiian reef fish, C. argus
- \$75,000 NOAA Coral Reef Conservation Program
Primary author (Principal Investigator Ivor Williams) – 2010-2012
Reef fish life history information for the Hawaiian Archipelago

HONORS AND AWARDS

- 2023 Early-Career Fellow, Ecological Society of America
- 2023 Honorable Mention, Early Career Fellow, International Coral Reef Society

Nominations (not awarded)

- 2023 ASU Faculty Women’s Association Outstanding Faculty Mentor Award
- 2022 ASU Graduate College Outstanding Faculty Mentor Award

TEACHING

- 2021, 2022, 2023 **Instructor**, “Introduction to Statistics,” School of Geographical Sciences and Urban Planning, Arizona State University (undergraduate, 30-40 students, full semester)
- 2022, 2023 **Instructor**, “Global Change” School of Geographical Sciences and Urban Planning, Arizona State University (undergraduate, 380 students, full semester)
- 2021 **Instructor**, “Bayesian Statistical Modeling,” School of Geographical Sciences and Urban Planning, Arizona State University (graduate, 12 students, full semester)

- 2019-2020 **Lead Instructor**, University of California Santa Barbara Software Carpentry, five 2-day workshops per quarter on data science using unix shell, git, and R
- 2019 **Lead Instructor**, University of California Santa Barbara Eco-Data-Science, workshop on high performance computing
- 2019 **Certified Instructor**, The Carpentries
- 2017 **Instructor**, “Ocean Tipping Points: Building a Community of Practice” (3-days), National Center for Ecological Analysis and Synthesis, UC Santa Barbara
- 2016 **Co-Instructor** (with Dr. Anna Neuheimer), “Introduction to programming and statistics,” (graduate level-full semester) Department of Oceanography, University of Hawaii
- 2005, 2006, 2007 **Undergraduate Teaching Assistant**- “Biology of Fishes” University of California Santa Barbara

MENTORING (†NSF-GRFP Recipient, ‡NSF Postdoctoral Fellow Recipient)

- Postdoctoral Scholars: ‡Kelly Speare (2022-current)
Shannon Hennessey (2021-2023, current position: NOAA Fisheries Researcher)
Steven Mana‘oakamai Johnson (2021-2022, current position: Assistant Professor, Cornell)
- PhD Students: †Rachel Layko (current, chair)
Morgan Winston (current, chair)
Madeline Berger (current, chair)
- Research Staff: Jayslen Serrano (2021-current)
Ellie Jones (2021-current)
Madeline Berger (2022-2023, current position: PhD student)
- Undergraduates: Jade Fujii (2023-current)
Jeida Ostrowski (2022-2023, current position: technician Hawai‘i Institute of Marine Biology)
Veronika Pearson (2022-2023, currently finishing undergraduate)
- Committees: Luis Gutierrez (PhD student, SOLS, 2021-current)
Bryan Grady (MS, SGSUP, 2022)
Kiana Heimlich (undergraduate honors, Barrett, 2021)

WORKING GROUPS

- 2021-2022 Selected participant, Arizona State University Global Futures Laboratory Research Accelerator program
- 2021-2022 Participant, Coral Bleaching Research Coordination Network – ‘Approaches to coral bleaching assimilation’, National Science Foundation
- 2019-2020 Participant, Spatio-temporal variability of coral reefs at the global scale: causalities, idiosyncrasies and implications for ecological indicators, Center for the Synthesis and Analysis of Biodiversity (CESAB), Montpellier, France
- 2019-2020 Technical co-Lead, Global Coral Reef Monitoring Network, Global reporting on coral reef status and trends for SDG-14 and CBD-Aichi-10

- 2018 Visiting Scholar, Mote Marine Biology Working Group – ‘Caribbean reefs of the Anthropocene: bright spots among coral depauperate reefs’, Florida State University
- 2018 Participant, ‘Advanced Tools and Data Integration for Coral Reef Research’, EarthCube, CRESCYNT, National Center for Ecological Analysis and Synthesis
- 2013-2017 Participant, Ocean Tipping Points Project, National Center for Ecological Analysis and Synthesis & Stanford Center for Ocean Solutions, 34 participants from 13 organizations
- 2012-2014 Co-Lead with Jeremy Jackson, Global Coral Reef Monitoring Network Caribbean node, 196 participants from 34 countries

PRESENTATIONS (* invited, † session-organizer)

- 2023 Indo-Pacific Fish Conference, Auckland, New Zealand
- †2023 International Marine Protected Area Congress, Vancouver, BC
- *2023 Plenary Speaker, Western Division American Fisheries Society, Boise, ID
- *2023 US Coral Reef Task Force Steering Committee, Washington, DC
- †2022 International Coral Reef Symposium, Bremen, Germany
- *2022 Seminar, Hawai‘i Pacific University, Kāne‘ohe, HI
- *2022 Hawai‘i Fishers Working Group, Hawai‘i Division of Aquatic Resources (February)
- *2021 Hawai‘i Fishers Working Group, Hawai‘i Division of Aquatic Resources (November)
- *2021 Hawai‘i Fishers Working Group, Hawai‘i Division of Aquatic Resources (October)
- *2021 Seminar, Scripps Institution of Oceanography, UC San Diego, San Diego, CA
- *2020 Seminar, Australian Center for Excellence in Coral Reef Studies
- *2020 Departmental Seminar, Department of Biology, California State University, Northridge
- *2019 Interview Seminar, School of Geographical Sciences and Urban Planning, Arizona State University, Tempe, Arizona
- *2019 Departmental Seminar, Ecology Evolution & Marine Biology, UCSB, Santa Barbara, CA
- 2019 Moorea LTER All Investigators Meeting, Santa Barbara, CA
- *2019 Guest Lecture, Florida Institute of Technology, Melbourne, FL
- 2018 Moorea LTER All Investigators Meeting, Santa Barbara, CA
- 2018 Western Society of Naturalists, Tacoma, WA
- *2018 Florida State University, Invited Seminar, Tallahassee, FL
- 2018 NMFS-Sea Grant Population Ecosystem Dynamics Fellow Meeting, Seattle, WA
- *2018 Hanauma Bay Community Lecture Series, Honolulu, HI
- *2017 NOAA Inouye Regional Center Science Seminar Series, Honolulu, HI
- 2017 Symposium on West Hawai‘i’s Marine Ecosystem, Kona, HI
- 2017 Western Society of Naturalists, Pasadena, CA
- *2017 Departmental Seminar, Oceanography, University of Hawai‘i, Honolulu, HI
- *2017 Hawaii Department of Health, Honolulu, HI
- 2017 Hawaii Conservation Congress, Honolulu, HI
- 2017 NMFS-Sea Grant Population Ecosystem Dynamics Fellow Meeting, Beaufort, NC
- 2016 Western Society of Naturalists, Monterey, CA
- 2016 International Marine Conservation Congress, St. John’s, Newfoundland
- 2016 Sea Grant Population Ecosystem Dynamics Fellow Meeting, Santa Cruz, CA
- 2016 International Coral Reef Symposium, Honolulu, HI
- *2016 State of Hawai‘i, Division of Aquatic Resources, Honolulu, HI
- 2015 Western Society of Naturalists, Sacramento, CA
- 2015 Hawai‘i Conservation Congress, Hilo, HI
- 2014 Western Society of Naturalists, Vancouver, WA
- 2014 Hawai‘i Conservation Congress, Honolulu, HI

2013 Indo-Pacific Fish Conference, Okinawa, Japan
 *2012 NOAA Scientist and Fisherman Exchange, Honolulu, HI
 2012 Western Society of Naturalists, Seaside, CA
 2012 International Coral Reef Symposium, Cairns, Australia
 2012 Tester Symposium, University of Hawai'i at Mānoa, Honolulu, HI (Awarded Best Talk)
 2011 Western Society of Naturalists, Vancouver, WA
 2010 Western Society of Naturalists, San Diego, CA
 2009 Western Society of Naturalists, Monterey, CA
 2008 International Coral Reef Symposium, Ft. Lauderdale, FL

SERVICE

Professional Service

Journal Reviewer PNAS, Science Advances, Conservation Biology, Global Change Biology, Proceedings of the Royal Society – Biology, Ecography, Landscape Ecology, Biological Conservation, Marine Ecology Progress Series, Coral Reefs, Fish & Fisheries, Diversity and Distributions, PeerJ, PLoS One, Ecological Applications, Ecosphere, Scientific Data, Scientific Reports

Grant Reviewer NOAA Marine Fisheries Initiative, Sea Grant Hawai'i

Society Leadership President-Elect, Pacific Islands Chapter American Fisheries Society (2023-current)

Society Member International Coral Reef Society, Ecological Society of America, American Fisheries Society, Western Society of Naturalists

Committees West Maui Ridge 2 Reef Initiative planning and informational participant; Hawaii Fisheries Local Action Strategy Committee; Sustainable Hawaii Initiative Marine Steering Committee, State of Hawai'i Holomua Marine Initiative Advisory Network

University Service – Arizona State University

Unit - School of Geographical Sciences and Urban Planning

Graduate committee (2022, 2023)
 Colloquium committee (chair 2021-2022, member 2023)

Other service

Center for Global Discovery and Conservation Science – Seminar planning committee (2021)

OUTREACH AND MEDIA COVERAGE (selected)

“How we can help coral and seabirds survive a warming world” National Geographic (May 2021)

“Reducing nutrient pollution helps coral resist bleaching” Science Daily (February 2020)

“Coral reefs near equator less affected by ocean warming: Research based on analysis of field observations from 20-year global coral survey” Science Daily (March 2019)

“How Big Data and Team Science Are Helping Hawaii Navigate toward Sustainable Oceans” Open Channels (February 2019)

“Scientists deliver alarming message about future of Hawaii's coral reefs” Hawai‘i News Now (November 2017)

“Overfishing is jeopardizing reefs, study finds” Honolulu Star Advertiser (September 2017)

Ridge to Reef event, Kahekili Herbivore Management Area, Kā‘anapali, Maui (October 2017, 2018)

Panel participant for screening of Chasing Corals, Kā‘anapali, Maui (October 2017)

“Inner Workings: Coral reefs at a tipping point” PNAS News (May 2016)

“Report Sees a Glimmer of Hope for Coral Reefs” TIME (July 2014)

“Protecting Parrotfish on the Path to a Caribbean Reef Revival” New York Times (July 2014)

“Oio Tagging Project” Hawai‘i Fishing News (May 2013)