

Carly D. Kenkel – Curriculum Vitae

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- EDUCATION:** Ph.D. in Ecology, Evolution and Behavior, Aug 2014 Austin, TX
The University of Texas at Austin
Advisor: Dr. Mikhail Matz, Dept of Integrative Biology
B.S. in Marine Science, *Summa Cum Laude*, May 2007 Stony Brook, NY
The State University of New York at Stony Brook
- POSTDOCTORAL TRAINING:** NSF International Postdoctoral Research Fellow in Biology, 2014 – 2017 Townsville, QLD
Australian Institute of Marine Science
Advisor: Dr. Line Bay
- ACADEMIC APPOINTMENTS:** Wilford and Daris Zinsmeyer Early Career Chair in Marine Studies Los Angeles, CA
and Associate Professor of Biological Sciences, 2024-present
Assistant Professor of Biological Sciences, 2023-2024
Gabilan Assistant Professor of Biological Sciences, 2017-2022
University of Southern California
- FELLOWSHIPS:**
- International Coral Reef Society Fellow, 2020 - present
 - Sloan Research Fellowship, Ocean Sciences, 2019 – 2021
 - University of Texas at Austin Harrington Dissertation Fellowship, Sept 2013 – May 2014
 - Fulbright U.S. Student Research Fellow, Thailand, 2007-2008
- AWARDS & HONORS:**
- USC Dornsife Dean's Emblem Award for Outstanding Community Contributions, 2023
 - USC Wilford and Daris Zinsmeyer Early Career Chair in Marine Studies, 2023
 - USC Dornsife Raubenheimer Award, 2022
 - Dornsife Faculty Council Award for Distinguished Service in Diversity, Equity, and Inclusion (DEI), 2021
 - Early Career Award, International Coral Reef Society, 2020
 - Nominated for Sigma Xi, The Scientific Research Honor Society, May 2019
 - Second Place, Poster Competition, Second Annual Big Data in Biology Meeting, May 2014
 - Finalist, Raymond B. Huey Best Student Presentation, SICB Annual Meeting, Jan 2014
 - Second Place, Proctor & Gamble Poster Competition, Univ. of Texas at Austin, Oct 2013
 - Outstanding Teaching Award, UT Austin School of Biological Sciences, May 2010
 - NSF GRFP, Honorable Mention, April 2009
- PEER REVIEWED** undergrad*, graduate[§], tech[#] or postdoc advisee[^]; corresponding[†], senior, work done at USC[‡]
- JOURNAL ARTICLES:** 57) Ruggeri M^{§†}, Million WC[§], Hamilton L*, **Kenkel CD[‡]** (2024) Microhabitat acclimatization alters sea anemone-algal symbiosis and thermal tolerance across the intertidal zone. *Ecology*, 105: e4388. doi: 10.1002/ecy.4388
• I provided funding and contributed to writing and revisions
56) Dilworth J^{§†}, Million WC[§], Ruggeri M[§], Hall ER, Dungan AM, Muller E, **Kenkel CD[‡]** (2024) Synergistic response to climate stressors in coral is associated with genotypic variation in baseline expression. *Proc R Soc B*, 291: 20232447.
• Muller conceived and designed the original experiment, I conceived the follow up

- expression analysis reported here. I provided funding and contributed to analysis, writing and revisions.
- 55) Hoadley KD[†], Lowry S, McQuagge A, Dalessandri S, Lockridge G, O'Donnell S*, Elder H[^], Ruggeri M[§], Karabelas E, Klepac C, **Kenkel CD[‡]**, Muller EM (2024) Bio-optical signatures of in-situ photosymbionts predict bleaching severity prior to thermal stress in the Caribbean coral species *Acropora palmata*. *Coral Reefs*, DOI: 10.1007/s00338-023-02458-5
 - I co-designed original experiment and obtained funding with co-PI Muller, led qPCR based symbiont typing work and contributed to revisions.
 - 54) Blanco-Pimentel M[†], **Kenkel CD[‡]**, Kitchen SA, Calle-Triviño J, Baums IB, Cortes-Useche C, Morikawa MK (2024) Overcoming barriers to reef restoration: field-based method for approximate genotyping of *Acropora cervicornis*. *Restoration Ecology*, 32(3): e14073.
 - I generated data and completed 2bRAD analysis and contributed to revisions
 - 53) Aguirre EG^{§†}, Fine MJ*, **Kenkel CD[‡]** (2023) Abundance of Oligoflexales bacteria is associated with algal symbiont density independent of thermal stress in *Aiptasia* anemones. *Ecology and Evolution*, 13(12): e10805.
 - I provided funding and contributed to writing and revisions
 - Our publication was featured with the journal cover image for the Dec 2023 issue.
 - 52) Zhang Y^{§†}, Gantt S, Keister EF, Elder H[^], Kolodziej G, Aguilar C, Studivan MS, Williams DE, Kemp DW, Manzello DP, Enochs IC, **Kenkel CD[‡]** (2023) Performance of *Orbicella faveolata* larval cohorts does not align with previously observed thermal tolerance of adult source populations. *Global Change Biology*, 29(23): 6591-6605.
 Press: <https://tinyurl.com/3846xdwz> <https://tinyurl.com/5a8s882x>
 - I designed the original study, obtained funding in collaboration with Manzello, and contributed to executing experiments; analysis, writing and revisions
 - 51) Ruggeri M^{§†}, Zhang Y[§], Aglyamova GV, **Kenkel CD[‡]** (2023) Divergent transcriptional response to thermal stress among life stages could constrain coral adaptation to climate change. *Frontiers in Marine Science*, 10: 1163552.
 - I designed and executed the original experiment, obtained funding, and contributed to analysis, writing and revisions
 - 50) Kiel PM[†], Formel N, Jankulak M, Baker AC, Cuning R, Gilliam DS, **Kenkel CD[‡]**, Langdon C, Lirman D, Lustic C, Maxwell K, Moulding A, Moura A, Muller EM, Schopmeyer S, Winters S, Enochs IC (2023) *Acropora cervicornis* Data Coordination hub, an open-access database for evaluating genet performance. *Bulletin of Marine Science* 99(2): 119-136.
 - I provided data and contributed to revisions
 - 49) Elder H^{^†}, Million WC[§], Bartels E, Krediet CJ, Muller EM, **Kenkel CD[‡]** (2023) Long-term maintenance of a heterologous symbiont association in *Acropora palmata* on natural reefs. *The ISME Journal*, 17: 486-489.
 - I designed the original experiment, obtained funding, and contributed to writing and revisions
 - 48) Aguirre EG^{§†}, Carlson HK*, **Kenkel CD[‡]** (2023) Complete genome of *Roseibium* sp. Strain Sym1, a bacterial associate of *Symbiodinium linucheae*, the microalgal symbiont of the anemone, *Aiptasia*. *ASM Microbiology Resource Announcements*, 12(3): e01118-22.
 - I provided materials and contributed to writing and revisions.
 - 47) Davies SW[†], Gamache MH, Howe-Kerr LI, Kriefall NG, Baker AC, Banaszak AT, Bay LK, Bellantuono AJ, Bhattacharya D, Chan CX, Claar DC, Coffroth MA, Cuning R, Davy SK, Del Campo J, Díaz-Almeyda EM, Frommlet JC, Fuess LE, González-Pech RA, Goulet TL, Hoadley KD, Howells EJ, Hume BCC, Kemp DW, **Kenkel CD[‡]**, Kitchen SA, LaJeunesse

- TC, Lin S, McIlroy SE, McMinds R, Nitschke MR, Oakley CA, Peixoto RS, Prada C, Putnam HM, Quigley KM, Reich HG, Reimer JD, Rodriguez-Lanetty M, Rosales SM, Saad OS, Sampayo EM, Santos SR, Shoguchi E, Smith EG, Stat M, Stephens TG, Strader ME, Suggett DJ, Swain TD, Tran C, Traylor-Knowles N, Voolstra CR, Warner ME, Weis VM, Wright RM, Xiang T, Yamashita H, Ziegler M, Correa AMS[†], Parkinson JE[†] (2023) Building consensus around the assessment and interpretation of Symbiodiniaceae diversity. *PeerJ* 11:e15023.
- I participated in the workshop and contributed to drafting text for the symbiont community profiling recommendations.
 - I contributed to final manuscript revisions.
- 46) Million WC^{§†}, O'Donnell S*, Bartels E, Conn, T, Krediet CJ, Kenkel CD^{‡†} (2022) Evidence for adaptive morphological plasticity in the Caribbean coral, *Acropora cervicornis*. *PNAS*, 119(49): e2203925119.
Press: <https://bit.ly/3GdJMgM> <https://bit.ly/3jB1jYC>
- I designed the original transplant study, obtained funding, and contributed to analysis, writing and revisions
- 45) Kenkel CD^{‡†}, Smith J, Hubbard K, Chadwick C, Lorenzen N[§], Tatters A, Caron D (2022) Reduced representation sequencing accurately quantifies relative abundance and reveals population-level variation in *Pseudo-nitzschia* spp. *Harmful Algae*, 118: 102314.
- I designed the original study, obtained funding, analyzed the sequencing data, and wrote the first draft of the manuscript.
- 44) Zhang Y^{§†}, Barnes S*, Kenkel CD[‡] (2022) Cross-generational heritability analysis of physiological traits in *Porites astreoides* across an inshore-offshore gradient in the Lower Florida Keys. *Coral Reefs* 41, 1681-1692.
- I obtained funding and contributed to writing and revisions.
- 43) Vega Thurber R[†], Schmeltzer ER, Grottoli AG, McLachlan RH, vanWoesik R, Toonen R, Warner ME, Dobson KL, Barott KL, Barshis DJ, Baumann JH, Chapron L, Combosch DJ, Correa AMS, DeCarlo TM, Hagedorn M, Hedouin L, Hoadley KD, Felis T, Ferrier-Pages C, Kenkel CD[‡], Kuffner IB, Matthews JL, Medina M, Meyer CP, Oster C, Price JT, Putnam HM, Sawall Y (2022) Unified methods in collecting, preserving, and archiving coral bleaching specimens to increase sample utility and interdisciplinary collaboration. *PeerJ* 10:e14176.
- I contributed to development of the genomics methods recommendations as part of the NSF Coral Bleaching RCN Workshop.
 - I contributed to drafting text for the genomics considerations section in addition to best practice recommendations for proteomics and RNA-seq.
 - I contributed to final manuscript revisions.
 - Grottoli is the lead PI on the RCN. Vega Thurber is co-PI and organized the workshop and compiled the manuscript.
- 42) Aguirre EA^{§†}, Million WC[§], Bartels E, Krediet CJ, Kenkel CD[‡] (2022) Host-specific epibiomes of distinct *Acropora cervicornis* genotypes persist after field transplantation. *Coral Reefs* 41, 265-276. Press: <https://bit.ly/3LH80BV>
- I designed the original study, obtained funding, and contributed to revisions
- 41) Muller EM[†], Dungan A, Million W[§], Eaton K, Petrik C, Bartels E, Hall ER, Kenkel CD[‡] (2021) Heritable variation and lack of trade-offs suggest adaptive capacity in *Acropora cervicornis* despite negative synergism under climate change scenarios. *Proc R Soc B*, 288, 20210923.
- My lab contributed to collection of physiological data, statistical analyses and interpretation, and I co-wrote the manuscript in collaboration with Muller.

- 40) Cunning R[†], Parker KE, Johnson-Sapp K, Karp RF, Wen AD, Williamson OM, Bartels E, D'Allesandro M, Gilliam DS, Hanson G, van Hooideonk R, Levy J, Lirman D, Maxwell K, Million W[§], Moulding A, Moura A, Muller EM, Nedimyer K, Reckenbeil B, Dahlgren C, **Kenkel CD**[‡], Parkinson, J, Baker AC (2021) Census of heat tolerance among Florida's threatened staghorn corals identifies resilient individuals throughout nursery populations. *Proc R Soc B*, 288, 20211613.
 - I contributed to study design, writing, and revisions and am PI on the NSF grant that partially funded the work.
- 39) Marhoefer SR[†], Zenger KR, Strugnelli JM, Logan M, van Oppen MJH, **Kenkel CD**, Bay, LK (2021) Signatures of adaptation and acclimatization to reef flat and slope habitats in the coral *Pocillopora damicornis*. *Frontiers in Marine Science*, 10.3389/fmars.2021.704709
 - I contributed to collection of the primary data, statistical analysis, and manuscript revisions.
- 38) Bitter MC[†], Wong JM, Dam HG, Donelan SC, **Kenkel CD**[‡], Komoroske LM, Nikols KJ, Rivest EB, Salinas S, Burgess SC, Lotterhos KE (2021) Fluctuating selection and global change: a synthesis and review on disentangling the roles of climate amplitude, predictability, and novelty. *Proc R Soc B*, 288: 20210727.
 - I co-lead conception of the original working group in collaboration with Bitter, initiated the literature review, and contributed to writing and revisions.
- 37) Million WC^{§†}, O'Donnell S*, Bartels E, **Kenkel CD**[‡] (2021) Colony-level 3D photogrammetry reveals that total linear extension and initial growth do not scale with complex morphological growth in the branching coral, *Acropora cervicornis*. *Frontiers in Marine Science*, 10.3389/fmars.2021.646475
 - Invited submission to special research topic 'Advances in 3D Habitat Mapping of Marine Ecosystem Ecology and Conservation'
 - I designed the original transplant study, obtained funding, and contributed to analysis, writing and revisions
- 36) Fulweiler W[†], Davies S, Biddle J, Burgin A, Cooperdock E, Hanley T, **Kenkel C**[‡], Marcarelli A, Matassa C, Santiago-Vasquez L, Traylor-Knowles N, Ziegler M (2021) Rebuild the Academy: Supporting academic mothers during COVID-19 and beyond *PLoS Biology*. Press: <https://bit.ly/3tAlaqN>
 - I contributed to writing and revisions.
- 35) Strehlow BW[†], Pineda MC, **Kenkel CD**, Laffy P, Duckworth A, Renton M, Clode PL, Webster NS (2021) Novel reference transcriptomes for the sponges *Carteriospongia foliascens* and *Cliona orientalis* and associated algal symbiont *Gerakladium endoclionum*. *Coral Reefs*, 40: 9-13.
 - I contributed to bioinformatic analyses and manuscript revisions.
- 34) Grottoli A, Toonen R, van Woesik R, Vega Thurber R, Warner M, McLachlan R, Price J, Baums I, Castillo K, Coffroth MA, Cunning R, Dobson K, Donahue M, Hench J, Iglesias-Prieto R, Kemp D, **Kenkel CD**[‡], Kline D, Kuffner I, Matthews J, Mayfield A, Padilla-Gamino J, Palumbi S, Voolstra C, Weis V, Wu H (2021) Increasing comparability among coral bleaching experiments. *Ecological Applications*.
 - I contributed to development of the 'moderate duration' experimental design recommendations as part of the NSF Coral Bleaching RCN Workshop.
 - I contributed to drafting text for the moderate duration experimental design section in addition to best practice recommendations for color-based bleaching analysis and tracking genetic diversity sections.
 - I contributed to final manuscript revisions.
 - Grottoli is the lead PI on the RCN and organized the workshop and compiled the

- manuscript.
- All authors contributed to manuscript revisions.
- 33) **Kenkel CD**[†], Mocellin VJL, **Bay LK** (2020) 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.
- I co-conceived the study in collaboration with Bay and Mocellin, conducted gene expression and all statistical analyses and wrote the original draft of the manuscript.
 - Mocellin conducted physiological trait assays, Bay contributed funding.
 - All authors contributed to manuscript revisions.
- 32) Luter HM[†], **Kenkel CD**, Terzin M, Peirce T, Laffy PW, Gibb K, **Webster NS** (2020) Gene correlation networks reveal the transcriptomic response to elevated nitrogen in a photosynthetic sponge. *Molecular Ecology*, 29: 1452-1462. doi:10.1111/mec.15417
- I contributed to molecular, bioinformatic and statistical analyses, and to manuscript revisions.
- 31) Nielsen JJV^{†*}, **Kenkel CD**, Bourne DG, Despringhere L, Mocellin VJL, **Bay LK** (2020) Physiological effects of heat and cold exposure in the common reef coral *Acropora millepora*. *Coral Reefs*, 39: 259-269. doi:10.1007/s00338-019-01881-x
- I contributed to wet-lab and statistical analyses and to manuscript revisions, and co-advised Nielsen during completion of her Honours thesis at James Cook University.
- 30) Howe-Kerr LI*, Bachelot B, Wright RM, **Kenkel CD**, Bay LK, **Correa AMS**[†] (2020) Symbiont community diversity is more variable in corals that respond poorly to stress. *Global Change Biology*, 26: 2220-2234 doi: 10.1111/gcb.14999
- I contributed to the study design and co-led execution of the tank experiment in collaboration with PhD student Wright. I also trained and supervised Howe-Kerr during her undergraduate internship at the Australian Institute of Marine Science where we conceived this study, and contributed to data analysis and manuscript revisions.
 - Howe-Kerr began this work for her senior undergraduate thesis and continued analyses as a PhD student in the Correa Lab. Correa contributed funding, reagents, and to drafting and revising the manuscript.
- 29) Parkinson J, Baker AC, Baums IB, Davies SW, Grottoli AG, Kitchen SA, Matz MV, Miller MW, Shantz AA, **Kenkel CD**^{†‡} (2020) Molecular tools for coral reef restoration: Beyond biomarker discovery. *Conservation Letters*, 13:e12687 <https://doi.org/10.1111/conl.12687>
- I co-conceived the study and co-wrote the original draft of the manuscript in collaboration with Parkinson.
 - All remaining authors contributed to manuscript revisions.
 - Our publication was featured with the journal cover image for the Jan/Feb 2020 issue.
- 28) Quigley KM[†], Willis BL, **Kenkel CD**[‡] (2019) Transgenerational inheritance of shuffled symbiont communities in the coral *Montipora digitata*. *Scientific Reports*, 9: 13328 <https://doi.org/10.1038/s41598-019-50045-y>
- Highlighted in the Top 100 in Ecology collection as one of the most downloaded ecology papers of 2019
- Press: <https://bit.ly/2oKLoe9> <https://go.nature.com/2nXz7m9> <https://bit.ly/2rPF86b>
- Quigley and I co-designed and executed the experiment, collaborated in analyzing the data and writing the original draft of the manuscript. I funded sequence analyses. Willis contributed funding and to revising the manuscript.
- 27) Zhang Y[§], Million WC[§], Ruggeri M[§], **Kenkel CD**^{†‡} (2019) Family matters: Variation in the physiology of brooded *Porites astreoides* larvae is driven by parent colony effects. *Comparative Biochemistry and Physiology – Part A: Molecular & Integrative Physiology*, 238: 110562. <https://doi.org/10.1016/j.cbpa.2019.110562>

- I designed and led execution of the experiments in collaboration with PhD students Zhang, Million and Ruggeri, while also providing training and supervision to Zhang who led execution and analysis of the physiological trait data and wrote the first draft of the manuscript. I contributed to revisions.
 - This manuscript was an invited submission as part of a special theme issue on Mechanisms of sensitivity and resilience in a rapidly changing ocean.
- 26) **Baums IB**[†], Baker AC, Davies SW, Grottoli AG, **Kenkel CD**[‡], Kitchen SA, Kuffner IB, LaJeunesse TC, Matz MV, Miller MW, Parkinson JE, Shantz AA (2019) Considerations for maximizing the adaptive potential of restored coral populations in the western Atlantic. *Ecological Applications*, 29(8): e01978 <https://doi.org/10.1002/eap.1978>, top cited article
- Awarded Coral Reef Hero 2020 status from Environment, Coastal and Offshore (ECO) magazine for making significant contributions to the field
 - I participated in the original working group meeting to synthesize the main concepts.
 - I contributed to statistical analyses, drafting of the original manuscript, and revisions.
- 25) Wright RM[†], Mera H[§], **Kenkel CD**, Nayfa M[§], **Bay LK**, **Matz MV** (2019) Positive genetic associations among fitness traits support evolvability of a reef-building coral under multiple stressors. *Global Change Biology*, **25**: 3294-3304.
- I contributed to study design and co-led execution of the tank experiment with Wright. • I trained and supervised Mera and Nayfa in wet-lab and statistical analyses and contributed to manuscript revisions.
 - Bay and Matz contributed to study design, funding, drafting and revising the manuscript.
- 24) Dixon GB, **Kenkel CD**[‡] (2019) Molecular convergence and positive selection associated with the evolution of symbiont transmission mode in stony corals. *Proc R Soc B*, **286**: <https://doi.org/10.1098/rspb.2019.0111>
- I conceived and designed the study, obtained funding, assembled the new reference transcriptome, and wrote the first draft of the manuscript. Dixon analyzed convergence and selection, and contributed to manuscript revisions.
- 23) Ali A, Laake L*, Kriefall N, **Kenkel CD**, Matz MV, **Davies SW**[†] (2019) Horizontal transmission of *Symbiodinium* in *Pseudodiploria strigosa* is facilitated by sediment but is independent of adult coral reservoirs. *Coral Reefs*, **38**: 405-415.
- Davies conceived the experiment.
 - I contributed to experimental design and Davies and I executed the experiment. I contributed to wet-lab, bioinformatic and statistical analyses and to drafting the manuscript.
- 22) Rocker MM[†][§], **Kenkel CD**, Francis DS, Fabricius KE, Willis BL, **Bay LK** (2019) 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 Experimental Marine Biology and Ecology*, **511**: 40-53.
- I contributed to bioinformatic and statistical analyses, and to drafting and revising the manuscript
- 21) **Kenkel CD**[†], **Bay LK** (2018) Exploring mechanisms that affect coral cooperation: symbiont transmission mode, cell density and community composition. *PeerJ*, **6**: e6047
- I designed the study, obtained primary funding, performed all lab-work and analyses, and wrote the original draft of the manuscript.
 - Bay contributed funding, and to executing the experiment and revising the manuscript.
- 20) **Kenkel CD**[†], Moya A, Strahl, J, Humphrey C, **Bay LK** (2018) Functional genomic analysis of corals from natural CO₂-seeps reveals core molecular responses involved in acclimatization to ocean acidification. *Global Change Biology*, **24**:158-171.
- I led lab work, analyses, and wrote the original draft of the manuscript.

- Bay conceived the study and secured funding, Moya provided additional analyses, Strahl and Humphrey conducted field-work, and all authors contributed to revising the manuscript.
- 19) Hardy MC†, Desselle MR, and the **2016 Catch a Rising Star Consortium** (2017) Engaging rural Australian communities in National Science Week helps increase visibility for women researchers. *Royal Society Open Science*, **4**(10):170548.
 - I participated in the study and contributed to revising the manuscript.
 - Hardy and Desselle conceived and designed study, secured funding and drafted the manuscript.
 - 18) **Kenkel CD†**, Bay LK (2017) Novel transcriptome resources for three scleractinian coral species from the Indo-Pacific. *GigaScience*, **6**:1-4.
 - I designed the study, obtained primary funding, performed all lab-work and analyses, and wrote the original draft of the manuscript.
 - Bay contributed funding and to revising the manuscript.
 - 17) Davies SW†, Strader ME, Kool JT, **Kenkel CD**, Matz MV (2017) Modeled differences of coral life-history traits influence the refugium potential of a remote Caribbean reef. *Coral Reefs*. **36**: 913-925.
 - I participated in field-work and contributed to revising the manuscript.
 - 16) Wright RM†, **Kenkel CD**, Dunn CE, Shilling EN, Bay LK, Matz MV (2017) Intraspecific differences in molecular stress responses and coral pathobiome contribute to mortality under bacterial challenge in *Acropora millepora*. *Scientific Reports*, **7**: 2609.
 - I participated in design and execution of the experiment, and contributed to revising the manuscript.
 - 15) **Kenkel CD†**, Matz MV (2017) Gene expression plasticity as a mechanism of coral adaptation to a variable environment. *Nature Ecology & Evolution*, **1**: 0014.
 Press: <https://www.nature.com/articles/s41559-016-0014/metrics>
 - I designed the study, obtained primary funding, performed all lab-work and analyses, and wrote the original draft of the manuscript.
 - Matz contributed funding, analyses and to revising the manuscript.
 - 14) Louis YD, Bhagooli R†, **Kenkel CD**, Baker AC, Dyall SD (2017) Gene expression biomarkers of heat stress in scleractinian corals: Promises and limitations. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology*, **191**: 63-77.
 - I contributed to drafting and revising the manuscript.
 - 13) Advani, N†, **Kenkel CD**, Davies SW, Parmesan C, Singer M, Matz MV (2016) Variation in heat shock protein expression at the latitudinal range limits of a wide-ranging species, the Glanville fritillary butterfly (*Melitaea cinxia*). *Physiological Entomology*, **41**(3): 241-248.
 - I contributed to study design, analysis and revising the manuscript.
 - 12) **Kenkel CD†**, Almanza AT*, Matz MV (2015) Fine-scale environmental specialization of reef building corals might be limiting reef recovery in the Florida Keys. *Ecology*, **96**: 3197-3212. Press: <http://freshscience.org.au/2015/can-corals-cope-with-change>
 - I designed the study, obtained primary funding, performed the experiment, lab-work and analyses, and wrote the original draft of the manuscript.
 - Almanza contributed to sample processing, analysis and revising the manuscript, Matz contributed funding, analyses and to revising the manuscript.
 - 11) **Kenkel CD†**, Setta SP*, Matz MV (2015) Heritable differences in fitness-related traits among populations of the mustard hill coral, *Porites astreoides*. *Heredity*, **115**: 509-516.
 - I designed the study, obtained primary funding, performed the experiment, lab-work and analyses, and wrote the original draft of the manuscript.

- Setta contributed to sample processing, analysis and revising the manuscript, Matz contributed funding, analyses and to revising the manuscript.
- 10) Klepac CN†, Beal J, **Kenkel CD**, Sproles A, Polinski JM, Williams MA, Matz MV, Voss JD (2015) Seasonal stability of coral-Symbiodinium associations in the subtropical coral habitat of St. Lucie Reef, Florida. *Marine Ecology Progress Series*. **532**: 137-151.
 - I contributed to wet-lab and bioinformatic analyses, and to revising the manuscript.
 - 9) Davies SW†, Treml EA, **Kenkel CD**, Matz MV (2014) Exploring the role of Micronesian islands in the maintenance of coral genetic diversity in the Pacific Ocean. *Molecular Ecology*, **24**: 70-82.
 - I participated in field-work and contributed to revising the manuscript.
 - 8) Quigley KM†, Davies SW, **Kenkel CD**, Willis BL, Matz MV, Bay LK (2014) Deep-sequencing method for quantifying background abundances of *Symbiodinium* types: exploring the rare *Symbiodinium* biosphere in reef-building corals. *PLoS ONE*, 9(4):e94297.
 - I contributed to bioinformatic analyses, and to revising the manuscript.
 - 7) **Kenkel CD**†, Sheridan C, Leal MC, Bhagooli R, Castillo KD, Kurata N, McGinty E, Goulet TL, Matz M (2014) Diagnostic gene expression biomarkers of coral thermal stress. *Molecular Ecology Resources*, **14**: 667-678.
 - I co-designed the study, led execution of the experiment, lab-work and analyses, and wrote the original draft of the manuscript.
 - Matz contributed to design and execution of the experiment and analyses, secured funding, and contributed to revising the manuscript.
 - 6) **Kenkel CD**†, Goodbody-Gringley G, Caillaud D, Davies S, Bartels E, Matz M (2013) Evidence for a host role in thermotolerance divergence between populations of the mustard hill coral (*Porites astreoides*) from different reef environments. *Molecular Ecology*, **22**: 4335-4348. Press: <http://bit.ly/2fWzF7z>
 - I co-designed the study, secured funding, led execution of the experiment, lab-work and analyses, and wrote the original draft of the manuscript.
 - Matz contributed to design and execution of the experiment and analyses, and provided additional funding. Goodbody-Gringley and Bartels contributed to executing the experiment and Caillaud and Davies contributed to statistical analyses. All authors contributed to revising the manuscript.
 - 5) **Kenkel CD**†, Meyer E, Matz MV (2013) Gene expression under chronic heat stress in populations of the mustard hill coral (*Porites astreoides*) from different thermal environments. *Molecular Ecology*, **22**: 4322-4334.
 - I co-designed the study, led execution of the experiment, lab-work and analyses, and wrote the original draft of the manuscript.
 - Matz contributed to design and execution of the experiment and analyses, and provided funding. Meyer contributed to bioinformatics analyses. All authors contributed to revising the manuscript.
 - 4) Hufmann LS†, O'Connell LA, **Kenkel CD**, Kline RJ, Khan IA, Hofmann HA (2012) Distribution of nonapeptide systems in the forebrain of an African cichlid fish, *Astatotilapia burtoni*. *Journal of Chemical Neuroanatomy*, **44**: 86-97.
 - I validated AVP antibodies and completed immunohistochemistry localizations.
 - 3) **Kenkel CD**†, ..., Matz MV (2011) Development of gene expression markers of acute heat-light stress in reef-building corals of the genus *Porites*. *PLoS ONE*, 6(10):e26914.
 - I co-designed the study, led execution of the experiment, lab-work and analyses, and wrote the original draft of the manuscript.
 - Matz contributed to design and execution of the experiment and analyses, secured funding, and contributed to revising the manuscript. Other authors contributed to executing

the experiment and processing samples, and contributed to revisions.

- 2) **Kenkel CD**, Traylor MR*, Wiedenmann J, Salih A, Matz MV† (2011) Fluorescence of coral larvae predicts their settlement response to crustose coralline algae and reflects stress. *Proceedings of the Royal Society B*, **278**: 2691-2697. Press: <https://bit.ly/35znza4>
 - I analyzed the data and wrote the original draft of the manuscript.
 - Matz conceived and executed of the experiment in collaboration with Wiedenmann and Salih, and secured funding. Traylor contributed to sample processing. All authors contributed to revisions.
- 1) **Kenkel, CD**†. (2008) Coral disease: baseline surveys in the Andaman Sea and Gulf of Thailand. *Phuket Marine Biological Center Research Bulletin*, **69**: 43-53.

BOOK CHAPTERS:

- 1) **Kenkel CD**†‡ & Wright RM (2022) Can gene expression studies inform coral reef conservation and restoration? In: van Oppen MJH, Aranda Lastra M (eds) Coral Reef Conservation and Restoration in the Omics Age. Coral Reefs of the World, vol 15. Springer, Cham. pp 151-166, doi: https://doi.org/10.1007/978-3-031-07055-6_10
 - Invited contribution
 - I conceived and designed literature review, led writing and revisions. Wright led meta-analysis.

OTHER PRODUCTS:

White Papers

Genetics Working Group of the Coral Restoration Consortium (2024) *Safeguarding Florida's Coral Reefs: The Urgency of Assisted Gene Flow for Elkhorn Coral Conservation*

Genetics Working Group of the Coral Restoration Consortium (2019) *Should Acropora palmata sexual recruits of mixed Florida and Curacao parentage be outplanted to reefs in Florida? A genetic risk assessment.*

Popular Press

Kenkel, Carly D. "Want to See Coral Reefs Grow? Freeze Them." *The New York Times*, 15 Aug. 2024, p. NN. Op-ed.

Protocols

- Image capture and pre-filtering for 3D photogrammetry of coral colonies [dx.doi.org/10.17504/protocols.io.bgdcjs2w](https://doi.org/10.17504/protocols.io.bgdcjs2w)
- Phenotyping 3D coral models in MeshLab [dx.doi.org/10.17504/protocols.io.bgbpjsmn](https://doi.org/10.17504/protocols.io.bgbpjsmn)

MANUSCRIPTS

IN PREPARATION:

(draft available on request)

Baums I†, Baker A, Davies SW, Grottoli A, **Kenkel CD**‡, Kitchen SA, Kuffner IB, Matz MV, Miller, MW, Parkinson JE, Prada C, Shantz AA (in revision) Managing expectations for breeding "super corals". Target Journal: *PNAS*

- I proposed the idea, contributed to outlining the initial perspective as well as subsequent writing and revisions

O'Donnell SE*†‡, Ruggeri M[^], Blanco-Pimintel M, Morikawa MK, Harms E, Calle-Triviño J, Flanagan B, Carlson HK*, **Kenkel CD**‡, Million WC§ (in re-review) Species specific patterns of population genetic structure differ on a microgeographic scale. Target Journal: *Coral Reefs*

- I provided funding and contributed to writing and revisions

Olivares-Zambrano*§, Timmons C[#], **Kenkel CD**‡, Quigley KM (in revision) Life-stage specific differences in survival are associated with greater shifts in symbiont community composition in larvae of the vertically transmitting coral, *Montipora digitata*. Target Journal: *Ecology & Evolution*

- I co-conceived experiments with Quigley, provided funding and contributed to analyses, writing and revisions

Nunn BL[†], Brown T, Timmons-Schiffman E, Mudge MC, Riffle M, Axworthy JB, Dilworth J[§], **Kenkel CD**[‡], Zaneveld J, Rodrigues LJ, Padilla-Gamino JL (in submission) Resilience in a time of stress: revealing the molecular underpinnings of coral survival following thermal bleaching events. Target Journal: *Nature Communication Earth and Environment*.

- I led analysis of symbiont community composition and contributed to analyses and revisions

Timmons-Schiffman E[†], Duselis E, Brown T, Axworthy J, Backstrom C, Riffle M, Dilworth J[§], **Kenkel CD**[‡], Rodrigues L, Nunn B, Padilla-Gamino J (in submission) Reproductive resilience: Pathways to gametogenic success in *Montipora capitata* after bleaching. Target Journal: *Scientific Reports*.

- I led analysis of symbiont community composition and contributed to analyses and revisions

Kenkel CD[‡], Corbett B, Cuning R, Dahlgren C, Dilworth J[§], Gamache M, Gomez M[§], Karp R, Matsuda S, Parkinson JE, Williamson O, Wen A (in submission) Unprecedented heat wave underscores the need for urgent and aggressive interventions to prevent the functional extinction of key Caribbean reef-building corals. Target Journal: *PNAS*

- I proposed the idea and led writing and revisions

Grottoli AG[†], Hulver AM, Vega Thurber R, Toonen R, Schmeltzer ER, Kuffner IB, Barott KL, Baums IB, Castillo KD, Chapron L, Coffroth MA, Combosch DJ, Correa AMS, Crandall ED, Donahue M, Donovan M, Eirin-Lopez J, Felis T, Ferrier-Pages C, Hagedorn M, Harrison HB, Hedouin L, Heron SF, Huang D, Humanes A, **Kenkel CD**, Kline D, Krueger T, Madin J, Manzello DP, Matz MV, McManus LC, Medina M, Muller EM, Padilla-Gamino JL, Putnam HM, Sawall Y, Shlesinger T, Sweet MJ, Voolstra CR, Weis VM, Wild C, Wu HC (in revision) Horizon scanning: Future directions of coral bleaching research. Target Journal: *BioScience*.

- I participated in the virtual workshop, drafted text for the broader applications section and contributed to final manuscript revisions.

FUNDING:

*Sole PI unless noted
Total and Net support listed*

Awarded

\$2.5M Total; \$2.3M External

- The Paul G. Allen Frontiers Group – 2024 Allen Discovery Center Program, PI M. Tresguerres (UCSD-SIO), co-PIs A Hamdoun, D. Lyons, D. Rennison, M. Lovett-Barron, N. Shaner, R. Daneman, F. Kuester, C. Kenkel, P. Cleves, T. Larson, T. Hamilton “Allen Discovery Center for Neurobiology in Changing Marine Environments” (\$10M; \$481,787 to Kenkel), 9/1/24-8/31/28
- HHMI Gilliam Fellowship Program, Primary applicant D. Olivares-Cordero, Faculty Associate C. Kenkel, 9/1/24-8/31/27 (\$159,000; \$9,000 Advisors Allowance to Kenkel)
- Mary Gard Jameson Foundation Innovation Award in Marine Environmental Research, 2024-2025, PI C. Kenkel, “Coral Restoration and Resiliency in the Caribbean” (\$50,000 to Kenkel)
- USC Wrigley Institute Faculty Innovation Awards, 2023-2025, PI C. Kenkel, “Unlocking the heart of coral biodiversity through population genomics” (\$50,000 to Kenkel)
- NSF ORCC IOS-2222272, 9/1/22-8/31/25, PI C. Kenkel, co-PI H. Koch, “COLLABORATIVE RESEARCH: The role of adaptive plasticity in coral response to climate change” (\$967,109; \$767,109 to Kenkel)
- NOAA Ruth Gates Coral Restoration Innovation Grants FY2020, 10/1/21-9/30/24, PI C. Kenkel, co-PI E. Muller, “Towards the development of novel genomic techniques for identifying thermally tolerant *Acropora palmata*” (\$333,845; \$230,969 to Kenkel)
- NSF OCE-2023705, 1/1/21-12/31/24, PI C. Kenkel, co-PI’s R. Cuning, J. Parkinson, C. Dahlgren, A. Baker, “COLLABORATIVE RESEARCH: Investigating the genomic basis of

key performance traits to quantify the evolutionary potential of coral populations under climate change” (\$1,361,745; \$414,887 to Kenkel)

- USC Dornsife Faculty-led Initiatives in Key Research Areas, 01/01/2020 – 12/31/2022, PI Jan Amend, co-PIs M. El-Naggar, C. Kenkel, C. Thrash, T. Williams, “New Microbes for New Beneficial Natural Products” (\$300,000; \$6,000 to Kenkel)
- NOAA AOML FY2019, 07/01/2019-11/30/2022, PI D. Manzello, co-PIs I. Enochs, C. Kenkel, A. Mayfield, D. Williams, “Larval genetics of heat resistant genotypes of the endangered coral, *Orbicella faveolata* from inshore patch reefs of the Florida Keys” (\$150,000; \$122,295 to Kenkel)
- USC Zumberge Research and Innovation Fund – Interdisciplinary Research Award, PI R. Lansford, co-PI’s S. Nuzhdin, C. Kenkel, A. Gabrielian. “Imaging cross-kingdom mutualisms” (\$85,000; \$8,000 to Kenkel)
- Alfred P. Sloan Foundation Research Fellowship 2019-2021, PI C. Kenkel. (\$70,000)
- USC Rose Hills Foundation Fellowship, 2019-2020, PI C. Kenkel, “The role of plasticity in adaptation to novel environments” (\$150,000)
- Mote Marine Laboratory, 01/01/2020-06/15/2020, PI C. Kenkel, “Application of 2bRAD sequencing to characterize genetic relatedness among coral genotypes used for large scale restoration efforts” (\$7,000; \$7,000 to Kenkel)
- California Sea Grant, Special Focus Awards 2019, PI C. Kenkel, “Harnessing the power of population genomics to understand the dynamics of *Pseudo-nitzschia* spp. harmful algal blooms” (\$62,885 to Kenkel).
- NSF OCE-1801945, 11/15/17-10/31/19, PI C. Kenkel, co-PI M. Matz, “RAPID: Collaborative Proposal: Dynamics of storm-mediated asexual reproduction in Florida Keys corals post-Hurricane Irma” (\$161,137; \$44,281 to Kenkel)
- USC Provost’s Interdisciplinary Teaching Grant, 2019, Instructors: B. Sanford-Russell and C. Kenkel, “Data, Denial, or Doom? Talking About Climate Change” (\$20,000)
- USC Dornsife Faculty-led Initiatives in Key Research Areas, 03/01/2019 – 10/30/2019, PI Jan Amend, co-PIs M. El-Naggar, C. Kenkel, C. Thrash, T. Williams, “New Microbes for New Beneficial Natural Products” (\$10,000; \$150 to Kenkel)
- NOAA Coral Reef Conservation Program FY2017, 4/1/18-9/30/19, PI C. Kenkel, co-PI C. Krediet, “Predicting the unpredictable: identifying environmental and genomic correlates of *Acropora cervicornis* out-plant success in the Florida Keys” (\$76,420; \$58,973 to Kenkel)

Submitted, decision pending

- Fulbright U.S. Scholar Program 2025-2026, Research (All Disciplines) Indonesia, PI C. Kenkel, “Laying the ecological foundation for advanced reef restoration interventions in Indonesia (~\$20,000 to Kenkel)

Applications submitted but declined by funding agency

- Searle Scholars Program Competition 2017, PI C. Kenkel. “Understanding the evolution and diversification of eukaryotes through development of a model symbiosis for manipulating transitions in individuality” (\$300,000)
- Alfred P. Sloan Foundation Research Fellowship Competition 2017, PI C. Kenkel. (\$65,000)
- NSF DEB, PI D. Bolnick, co-PI C. Kenkel, 9/1/17-8/31/20 “COLLABORATIVE RESEARCH: Does frequency-dependent selection rescue rare immigrants from divergent selection?” (\$1,889,292; \$134,875 to Kenkel)

- NSF DEB, PI C. Kenkel, 6/1/19-5/30/24, “CAREER: The role of plasticity in adaptation to novel environments” (\$944,864), *mixed ratings, am collecting additional preliminary data and planning to resubmit in 2022*
- Johnson & Johnson WiSTEM2D Competition 2018. PI C. Kenkel. (\$150,000)
- NOAA National Competitive Harmful Algal Bloom Program ECOHAB, PI H. Bowers, co-PI’s K. Hubbard, J. Smith, C. Villac, C. Kenkel, D. Caron, 9/1/19-8/31/24, “Population-to-species level diversity of Pseudo-nitzschia communities across multiple regions of U.S. coastal waters: relationships to water mass variability and domoic acid outbreaks” (\$529,921 to Kenkel), *rated Very Good*
- NSF OCE, PI C. Kenkel, co-PI’s R. Cunning, J. Parkinson, C. Dahlgren, A. Baker, 9/1/19-8/31/22, “COLLABORATIVE RESEARCH: Investigating the genomic basis of key performance traits to quantify the evolutionary potential of coral populations under climate change” (\$995,000; \$434,294 to Kenkel), *rated Very Good, resubmitted in February 2020*
- NOAA Coral Reef Conservation Program FY2019, 8/1/19-1/31/21, PI A. Altieri, co-PI’s M. Johnson, V. Paul, C. Kenkel “Mechanisms of coral resilience to the emerging threat of ocean deoxygenation” (\$58,749; \$26,583 to Kenkel)
- Moore/Simons Foundation Origin of the Eukaryotic Cell Solicitation, 01/30/20-01/29/23, PI C. Kenkel, co-PI’s J. Matthews, J. Padilla-Gamiño, K. Quigley, M. Tresguerres “Using a heritable endosymbiosis to investigate mechanisms of eukaryogenesis” (\$1,556,690; \$532,390 to Kenkel)
- NSF NRT-URoI, 09/01/20-08/31/24, PI S. Nuzhdin, co-PI’s S. Finley, C. Kenkel, M. Edge, S. Finkel, “Training program for predicting the phenotype – workforce development and certification for graduate students and professionals” (\$3,000,000; \$0 to Kenkel)
- NSF URoL:MTM, 1/1/21-12/31/25, PI C. Kenkel, co-PI’s M. Tresguerres, J. Padilla-Gamiño “MTM2: COLLABORATIVE RESEARCH: Maternal transmission of microbial endosymbionts: From functional mechanisms to ecological and evolutionary consequences” (\$2,643,901; \$1,202,845 to Kenkel), *mixed ratings, plan to revise and resubmit to IOS core solicitation as recommended in panel summary*
- Packard Fellowships for Science and Engineering 2020, 01/1/21-12/31/25, PI C. Kenkel, “Investigating genetic and environmental drivers of coral resilience” (\$875,000)
- Moore Foundation Aquatic Symbiosis Genomics Hub Initiative 2021, PI P. Bongaerts, co-PI’s M. Vermeij, I. Baums, P. Frade, M. Achlatis, I. Cooke, C. Kenkel, S. Shapira, “Deep into the Caribbean: a comprehensive assessment of reef-building corals and their dominant photo-endosymbionts”
- Revive & Restore Foundation, Wild Genomes: Marine Initiative 2021, PI C. Kenkel, co-PI’s Z. Fuller, M. Matz, E. Muller, S. Winters “Quantifying genomic diversity of coral restoration biobanks to inform adaptive management” (\$82,498; \$82,498 to Kenkel)
- DARPA REEFENSE, 2021-2026, PI C. Kenkel, co-PIs, P. Lynett, S. Masri, Q. Wang, E. Muller, H. Koch, A. Spadaro, S. McKeon, J. Locascio, “SoCoral: Structures Optimizing Coral Resilience and Linear Extension” (\$30M, \$2.5M to Kenkel)
- HFSP Early Career Research Grant, 2023-2025, PI M. Ziegler, co-PI’s C. Kenkel, K. Critchell, “Beyond environmental variability: impact of predictability and novelty on metaorganism adaptation” (\$1.2M; \$400,000 to Kenkel), *invited submission in July 2022 following LOI review*
- NIH NCCIH R01, PA-20-185, PI C. Kenkel, collaborator C. Wang, “Leveraging Aiptasia’s natural pharmacy for natural products discovery” (\$3,333,0331, \$2,166,451 to Kenkel)

- NSF IOS, PI C. Kenkel, Faculty Associate C. Wang, 8/1/24-7/31/29 “CAREER: Probing the functional role of fungi in the cnidarian meta-organism” (\$1,495,052; \$1,413,891 to Kenkel)
- CORDAP 2023 LOI, PI Gayatri Reksodihardjo-Lilley, co-PIs T. Razak, C. Kenkel, “Integrating Assisted Evolution into a Unified Restoration Roadmap for Indonesia” (\$1.5M; ~\$400k to Kenkel)

Concluded prior to USC

\$217,828 Total; \$207,838 External

- NSF DBI International Postdoctoral Research Fellowship in Biology, 1/1/15-3/31/17, PI C. Kenkel, “Reef-building corals as evolutionary models of vertical symbiont transmission” (\$169,056)
- NSF DEB DDIG, 6/1/13-1/31/14, PI M. Matz, co-PI C. Kenkel, “DISSERTATION RESEARCH: Mechanisms of Coral Adaptation in the Florida Keys” (\$18,782)
- UT Austin Integrative Biology Dept. DDIG, 2012, “Mechanisms of Coral Adaptation in the Florida Keys” (\$8,000)
- P.E.O. Women’s International Graduate Fellowship, 2011, (\$15,000)
- PADI Foundation Grant, 2011, “Differential adaptation to thermal stress between populations of *Porites astreoides*” (\$5,000)
- UT Austin Carl Gottfried Hartman Graduate Fellowship, 2010, “Thermotolerance in *Porites astreoides*: Can Corals Adapt to Climate Change?” (\$1,990)

INVITED LECTURES:

Conferences

- ‘*Ecological genomics of Caribbean acroporids in light of a demographic catastrophe*’ keynote at Southern California Evolutionary Genetics and Genomics Meeting (SCalE), May 2024
- ‘*Aquaculture, adaptation and genetic tools*’ Session chair and panelist, Reef Resilience Symposium, Cairns, Australia, April 2024
- *Managing expectations for selective breeding of future corals*, Reef Futures Meeting conference plenary keynote, Key Largo, FL, Sep 2022
- *Disentangling genetics and environment to optimize reef restoration in a changing climate*, Ecological Society of America Meeting, Montreal, QC, Canada Aug 2022
- International Coral Reef Symposium, Bremen, Germany, Jul 2022
- 2022 Ocean Global Change Biology Gordon Research Conference discussion lead, *cancelled*
- 2022 Ocean Global Change Biology Gordon Research Seminar keynote, *cancelled*
- *The myth of the super coral*, Reef Futures Virtual 2021 conference plenary keynote, Dec 2021
- 2020 Ocean Global Change Biology Gordon Research Seminar, *cancelled due to COVID-19*
- Society for Integrative and Comparative Biology 2020 Meeting Symposium, “Building Bridges from Genomes to Phenomes”, Austin, TX, Jan 2020, *declined, on maternity leave*

Departmental Seminars

- *Intraspecific variation in thermal tolerance in captive bred cohorts of the endangered Caribbean coral Acropora palmata*
Coral Collaboration Series, NOAA Coral Reef Conservation Program, Oct 2024
- *Towards understanding the ecosystem-level consequences of phenotypic plasticity*
Center for Ecological and Evolutionary Dynamics Seminar Series, USC, Feb 2024
Spatial Sciences Institute, USC, Jan 2024
- *Disentangling genetics and environment to optimize reef restoration in a changing climate*
Mote Marine Laboratory, Sarasota, FL, Jun 2023
- *Reef conservation and restoration in a changing climate: Can coral be super?*
Molecular & Computational Biology section seminar series, USC, Oct 2024
Marine & Environmental Sciences colloquium series, Northeastern University, MA, Feb 2022
Ecology, Evolution & Environmental Biology Seminar, Columbia University, NY, Dec 2021
Ecology & Evolutionary Biology Seminar, UCLA, Los Angeles, CA, Nov 2021
- *Towards predicting the unpredictable: Genotype and environment effects on the growth and*

survival of Acropora cervicornis in the Florida Keys

Explore, Explain and Sustain Seminar Series, California Academy of Sciences, Dec 2020

Marine & Environmental Science colloquium series, Northeastern University, MA, Nov 2020

- *Evolution of the coral symbiosis and its ecological consequences*

Biology Department Seminar, Auburn University, AL, Sep 2019

Ecology, Evolution and Marine Biology Seminar, UC Santa Barbara, CA, Jun 2019

Coral Club Seminar, Scripps Institution of Oceanography/SDSU, San Diego, CA, Apr 2019

Paleo/Environmental Seminar, Department of Earth Sciences, USC, Feb 2019

Biology Colloquium Seminar, University of Texas at Arlington, Arlington, TX, Sep 2018

- *Coral ecological genomics: A tale of two reefs*

Biology Department Seminar, Occidental College, Los Angeles, CA, Nov 2017

Biology Lecture Series, Loyola Marymount University, Los Angeles, CA, Nov 2017

MCB Seminar, University of Southern California, Los Angeles, CA, Oct 2017

Research Seminar, University of South Carolina Beaufort, Beaufort, SC, Oct 2017

Biology Colloquium, California State University Northridge, Northridge, CA, Sep 2017

- *Adaptive evolution mechanisms in marine populations*

MEB Seminar, University of Southern California, Los Angeles, CA, Feb 2016

Vanzant Seminar, Rice University, Houston, TX, Nov 2015

- *Investigating local adaptation in a reef-building coral*

Mote Marine Laboratory, Sarasota, FL, July 2014

Penn State University, State College, PA, April 2014

Juniata College, Huntingdon, PA, April 2014

ARC Centre of Excellence, James Cook University, Townsville, QLD Australia, Dec 2013

Australian Institute of Marine Science, Townsville, QLD Australia, July 2012

Population Biology Seminar, University of Texas at Austin, Austin, TX, Jan 2012

Other Professional

- *What do California's intertidal anemones have to do with coral reefs?*

Catalina Island Conservancy, Jan 2024

- *Informing policy and conservation management*

USC MEB Annual Retreat, Sep 2023

- *Reef conservation and restoration in a changing climate: Can coral be super?*

Dornsife Advancement All Staff Meeting, Apr 2023

- *Trait variation in Caribbean acroporids and its implications for reef restoration*, Acropora Recovery Implementation Team Meeting, Jul 2022

- *Population genetic considerations for coral collection, propagation and restoration*

Aquarium-based Protection of Climate Resilient Corals Workshop, Long Beach, CA Dec 2018

- *Mechanisms of adaptation in reef building corals*

Staff Enrichment Day, California Science Center, Los Angeles, CA, Jun 2018

WiSE Research Horizons Symposium, University of Southern California, Mar 2018

- *Mutualisms*

Museum of Tropical Queensland, Townsville, QLD, Australia, Aug 2016

CONTRIBUTED TALKS/POSTERS:

Lecture

- *Intraspecific variation in thermal tolerance in the endangered Caribbean coral Acropora palmata*, Society for Integrative and Comparative Biology Meeting, Seattle, WA, Jan 2024
- *Can gene expression studies inform coral reef conservation and restoration?*, Society for Integrative and Comparative Biology Meeting, Austin, TX, Jan 2023
- *Reduced representation sequencing accurately quantifies relative abundance and reveals population-level variation in Pseudo-nitzschia spp.*, Society for Integrative and Comparative Biology Meeting, Phoenix, AZ, Jan 2022
- *Towards predicting the unpredictable: Genotype and environment effects on the growth and survival of Acropora cervicornis in the Florida Keys*, International Coral Reef Symposium,

Virtual, July 2021

- *Transgenerational inheritance of shuffled symbiont communities in the coral Montipora Digitata*, 9th Annual Yosemite Symbiosis Workshop, Wawona, CA, May 2019
- *Population genetic considerations for coral collection, propagation and restoration*, Reef Futures Meeting, Key Largo, FL, Dec 2018
- *Using comparative transcriptomics to identify genes involved in the evolution of coral symbiont transmission mode*
International Symbiosis Society Meeting, Corvallis, OR, July 2018
8th Annual Yosemite Symbiosis Workshop, Wawona, CA, May 2018
Society for Integrative and Comparative Biology Meeting, San Francisco, CA, Jan 2018
- *Towards developing biomarkers for coral reef restoration*, Restoration Genetics Working Group Meeting, State College, PA, Apr 2018
- *Investigating the genomic basis of coral acclimatization to ocean acidification*, Western Society of Naturalists, Pasadena, CA, Nov 2017
- *Reef-building corals as a natural model for evolutionary transitions in symbiont transmission mode*, International Coral Reef Symposium, Honolulu, HI, June 2016
- *Local adaptation in a Caribbean coral is associated with gene expression plasticity*, Society for Integrative and Comparative Biology Meeting, Austin, TX, Jan 2014
- Society for Integrative and Comparative Biology Meeting, San Francisco, CA, Jan 2013
- *Evidence of local thermal adaptation in a Caribbean coral*,
International Coral Reef Symposium, Cairns, QLD Australia, July 2012
Society for Integrative and Comparative Biology Meeting, Charleston, SC, Jan 2012
Ecological Society of America Meeting, Austin, TX, Aug 2011
- *Integrative gene expression analysis of stress response in Porites astreoides*, Society for Integrative and Comparative Biology Annual Meeting, Seattle, WA, Jan 2010
- *Coral disease in the Andaman Sea and Gulf of Thailand*, Thailand Coral Reefs Meeting, Phuket Marine Biological Center, May 2008

Poster

- *Transgenerational inheritance of shuffled symbiont communities in the coral Montipora digitata*, Society for Integrative and Comparative Biology Meeting, San Francisco, CA, Jan 2018
- *Heritability of fitness-related traits in populations of Porites astreoides from different thermal environments*, Society for Integrative and Comparative Biology Meeting, Austin, TX, Jan 2014
- *Transcriptomic signatures of local adaptation in a Caribbean coral*, Gordon Research Conference, Evolutionary and Ecological Genomics, ME, July 2013
- *Gene expression biomarkers of acute and chronic heat stress in a reef-building coral*, Society for Integrative and Comparative Biology Meeting, San Francisco, CA, Jan 2013

TEACHING EXPERIENCE:

*originated course

Undergraduate courses

BISC 102: Humans and Their Environment (Fall: 2018-2019, 2021-2024; Spring: 2021, 2023)
*BISC 112: Data, Denial or Doom?: Talking about Climate Change (Spring: 2022)
BISC 469: Marine Biology (Spring: 2018, 2019)

Graduate courses

BISC 529: Seminar in Marine Biology (Fall: 2019; Spring: 2021)
BISC 584: Faculty Lecture Series (Spring: 2018, 2019, 2020)
*BISC 588: Introduction to Bioinformatics (Fall: 2019, 2021-2024)
*BISC 540: Advanced Seminar in Symbiosis (Spring: 2023)

Guest lectures

- Coral eco-evolution, Climate Change Physiology & Evolution, Auburn U, AL, Oct 2022
- Coral holobiont responses to stress, Quantitative Genetics, Smith College, MA, Apr 2022

- Amplicon sequencing, Molecular Ecology, Auburn University, AL, Mar 2022
- Coral biology, Marine Biology, Manchester University, IN, Nov 2020
- Coral biology, ecology, and climate change, BISC 582, USC, Fall 2017-2022
- Thermal physiology, St. Edward's University, Austin, TX, Nov 2011

Instructor/Co-Instructor

- Bioinformatic Fridays, Fall 2018
Informal seminar teaching basic bioinformatics and genomic analyses to 10 graduate students and postdocs in the MEB section.
- Tag-Seq and 2bRAD Workshops, Wrigley Marine Science Center, CA; Aug 2018
Taught wet-lab and bioinformatics methods to 16 participants (1 PI, 6 Staff Scientists, 3 Postdocs, 6 Graduate Students) from multiple US and International academic and US government institutions.
- Amplicon Seq and 2bRAD Workshops, Wrigley Marine Science Center, CA; Aug 2017
Taught wet-lab and bioinformatics methods to 17 participants (3 PIs, 6 Staff Scientists, 2 Postdocs, 5 Graduate Students, 1 Secondary School Teacher) from multiple US and International academic and US government institutions.
- The Art of Gene Expression Analysis, Mote Tropical Research Lab, FL; Jun 2013
Taught laboratory and bioinformatic protocols for Tag-based RNAseq and QPCR to 14 participants (1 PI, 1 Staff Scientist, 4 Postdocs, 8 Graduate Students) from multiple US and International academic institutions.
- QPCR for Coral Biologists, Mote Tropical Research Lab, FL; Jul 2011
Taught wet-lab and bioinformatics methods for QPCR to 13 participants (1 PI, 4 Postdocs, 2 Staff Scientists, 6 Graduate Students) from multiple US and International academic and US government institutions.
- QPCR for Coral Biologists, Mote Tropical Research Lab, FL; Aug 2010
Taught wet-lab and bioinformatics methods for QPCR to 10 participants (4 PIs, 6 Graduate Students) from multiple US and International academic institutions.
- Biomarkers of Coral Health and Disease, Mote Tropical Research Lab, FL; Jul 2009
Taught wet-lab and bioinformatics methods for QPCR to 9 participants (1 PI, 1 Staff Scientist, 1 Postdoc, 6 Graduate Students) from multiple US and International academic institutions.
- Topic Editor, *Coral Reefs* (Journal of the International Coral Reef Society, 6/19 – 8/21)
- Manuscript Review (54 reviewed, 2012-present): *PNAS* (1), *Nature Communications* (3), *Proceedings of the Royal Society of London B: Biological Sciences* (3), *The American Naturalist* (1), *PLoS Genetics* (1), *Molecular Ecology* (12; Top 300 Reviewer 2015), *BMC Genomics* (3), *Genome Biology & Evolution* (1), *Ecology* (1), *Functional Ecology* (1), *Scientific Reports* (2), *PLoS ONE* (3), *Journal of Experimental Marine Biology and Ecology* (3), *Marine Ecology Progress Series* (3), *Biology Open* (1), *Coral Reefs* (5), *GigaScience* (1), *Marine Environmental Research* (1), *PeerJ* (3), *Frontiers in Marine Science* (3), *Evolutionary Applications* (1), *Microbial Ecology* (1), *Harmful Algae* (1), *Molecular Biology and Evolution* (2), *Marine Biodiversity* (1), *Global Change Biology* (1), *Royal Society Open Science* (1), *Springer Nature* (1), *ISME Journal* (1), *mSystems* (1), *Trends in Microbiology* (1)
- Grant Review: NSF *ad hoc* review (9 total), *full panel* participation (2 total), Israel Science Foundation (ISR, 1 total), US-Israel Binational Science Foundation (BSF, 1 total), China Israel Research Program *ad hoc* (1 total), French National Research Agency (ANR, 1 total) *Terre vivante ad hoc* (1 total), Royal Society of New Zealand Marsden Fund (2 total), Research Grants Council (RGC) of Hong Kong *ad hoc* (1 total), National Geographic *ad hoc* (2 total); USC Sea Grant Preliminary Proposal *full panel* (2 total), Iberostar Wave of Change *ad hoc* (1 total), G20 CORDAP Coral Accelerator Program 2023 *ad hoc* (1), American Philosophical Society Lewis & Clark Fund (6 total), Reef Futures 2024 Scholarships

PROFESSIONAL SERVICE:

- Thesis Review: Doctoral Thesis Proposal, James Cook University (1), Doctoral Thesis, University of Technology, Sydney (1)

PROFESSIONAL DEVELOPMENT:

Elected positions

- Council Member, International Coral Reef Society (Jan 2019 - Dec 2020)

Conference sessions chaired

- Genetics and Population Management session co-chair, Reef Futures Conference, Dec 2024
- Theme 10 session co-chair, “What role does phenotypic plasticity play in acclimatization or adaptation to environmental change?”, International Coral Reef Symposium, July 2020/21
- Session 5 co-chair, “Acclimatization and Adaptation in Reef Organisms”, International Coral Reef Symposium, June 2016

Advisory/Working group memberships

- Intervention Risk Review Group (IRRG) for Australia’s Great Barrier Reef Restoration and Adaptation Program (RRAP), 2022-present
- F3P: *Acropora palmata* population management plan, US National Marine Fisheries Service
- California Ocean Science Trust Faculty Perspective Roundtable on Bright Spots & Barriers: Taking Action for Diversity, Equity, and Inclusion in California’s Ocean Sciences, 2021
- NOAA National Marine Fisheries Service Southeast Region *Acropora* Recovery Implementation Team, 2019-present
- Steering committee, NSF RCN: Evolution in Changing Seas 2019-2021, 2018-2022
- Coral Restoration Consortium Genetics Working Group, 2017-present

Science workshops, organized and delivered

- Co-designing a Future for Caribbean Reefs, Reef Futures Conference, Dec 2024

Science workshops, attended as a participant

- Understanding natural and assisted evolution and acclimation on coral reefs to guide investments in research and development as part of the Coral Research and Development Accelerator Platform (CORDAP), a G20 initiative, Jan 2023, invited participant
- NSF Symbiodiniaceae Diversity Workshop, Aug 2021, Virtual, invited participant
- Evolution in Changing Seas RCN Synthesis Workshop, Aug 2019, Shoals Marine Lab, invited participant
- Coral Bleaching RCN Workshop #1: Experimental design protocol recommendations in coral bleaching research, May 2019, Ohio State University, invited participant
- Aquarium-based Protection of Climate Resilient Corals, Aquarium of the Pacific, Dec 2018, invited participant
- *Aiptasia-Symbiodinium* Workshop, ‘Onset of symbiosis’ group leader, Oregon State University, Jul 2018, invited participant
- Editor’s Challenge: Defining Stress, SICB Annual Meeting, San Francisco, Jan 2018
- Programming for Biologists, UT Austin, Jan – May 2014
- Integrative Biology Course, Okinawa Institute of Science and Technology, May 2013
- Next Generation Sequencing Bioinformatics, UT Austin Summer Statistics Institute, 2012
- Multivariate Data Analysis using R, UT Austin Summer Statistics Institute, 2012

Teaching workshops, attended as a participant

- USC Center for Excellence in Teaching New Faculty Institute, 2017-2018
- Higher Degree Research Supervisor Training, James Cook University, Jul 2016

Diversity, Equity, and Inclusion workshops, attended as a participant

- ESA Active Bystander Intervention Training, 2022
- USC Trojans for Excellence Training Program, 2022

Media workshops, attended as a participant

- Annenberg Center for Climate Journalism Media Workshop, Oct 2022
- Catch a Rising Star: Women in Queensland National Science Week Training, Jul 2016
- Fresh Science Media Training, Aug 2015

USC SERVICE:

Committees

- MEB 1st Year Mentoring Program Committee, 2024-present
- MEB Graduate Program Handbook Committee, 2024
- MEB Graduate Program Recruitment Revision Committee, 2024
- Developmental Review Committee Chair, Dr. Melissa Guzman's Third-Year Review, 2024
- Center for Ecological and Evolutionary Dynamics (formerly Population Biology Seminar Series), BISC, 2022-present
- Search Committee, Asst. Professor of Biological Sciences, MEB, 2021-2022
- Faculty Environment and Employment Committee, USC Academic Senate, 2021-2022
- Search Committee, USC Dive Safety Officer, 2021
- MEB Section Head Committee, 2021
- BISC Curriculum Committee, E3B track development, 2021
- Wrigley Steering Committee to improve the USC scientific dive training program, 2021
- MEB Website Redesign Committee, 2021
- MEB Graduate Admissions Committee, 2021, 2023
- Unlearning Racism in Geoscience (URGE) podlet discussion leader, 2021
- Diversity & Inclusion Committee Chair, MEB, 2020 – present
- *ad hoc* Diversity & Inclusion Committee, MEB, 2020
- Fulbright U.S. Student Program Campus Feedback and Evaluation Committee, 2019, 2021, 2022, 2023
- Search Committee, Wrigley Institute for Environmental Studies Scientific Director, 2019
- Search Committee, Asst. Professor of Biological Sciences, MEB, 2019-2020
- Search Committee, Asst./Assoc. Professor of Biological Sciences, QCB, 2018-2019
- 10-year Vision Plan Committee, MEB, 2018
- Search Committee, Open rank Professor of Biological Sciences, MEB, 2017-2018
- Search Committee, Wrigley Institute for Environmental Studies Director, 2017

Public events & panels

- USC Dornsife Trojan Family Weekend 2021
- Explore USC Admitted Students event, April 2018
- WiSE Speed Networking Event, Feb 2019

Proposal review

- 2022 Johnson & Johnson WiSTEM2D preliminary proposals, Office of Research
- 2022 Provost's Interdisciplinary Teaching Grant Proposals

MENTORING:

Post-Graduate level

- Postdoctoral Research Scholars
 - Dr. Anna Vinton (Aug 2023 – present)
 - 2023 USC Postdoctoral Fellowship for Sustainability Solutions Recipient
 - Dr. Maria Ruggeri (Aug 2023 – Dec 2023)
 - Continued on to postdoc with Dr. Virginia Weis at Oregon State University
 - Dr. Holland Elder (Sep 2020 – May 2023)
 - 2021 Hagenah Postdoctoral Fellowship Recipient
 - Continued on to postdoctoral position at Australian Institute of Marine Science
- Visiting Research Scholars
 - Dr. Xuelin Zhao, Ningbo University (2019-2020, China Scholarship Council Recipient)

Graduate level

- Ph.D. (primary supervisor, MEB USC)

Current students

- Natalie Villafranca (2023-present)
 - o 2022 NSF GRFP Recipient
 - o 2023 SACNAS travel award recipient
- Maya Gomez (2022-present)
 - o 2024 NSF GRFP Recipient
 - o 2024 Wrigley Institute Graduate Fellow
- Adib Mustofa (2022-present)
 - o Fulbright Scholar (Indonesia)
 - o 2023 Wrigley Institute Graduate Fellow
 - o 2023 American Philosophical Society – Lewis & Clark Award
 - o 2023 AICEF Travel Award
 - o 2024 WWF Russell E. Train Education for Nature Fellow
- Jenna Dilworth (2021-present)
 - o 2022 Women Divers Hall of Fame Scholarship
 - o 2024 PADI Foundation Grant Recipient
 - o 2024 Gold Family Fellowship Recipient
 - o 2024 USC WiSE Merit Award for Current Doctoral Students
- Daniel Olivares-Zambrano (2021-present)
 - o 2021 NSF GRFP Honorable Mention
 - o 2022 Ford Foundation Fellowship Honorable Mention
 - o 2022 Wrigley Bakus Fellow
 - o 2022 Wrigley Institute Graduate Fellow
 - o 2022 CSU Doctoral Incentive Program Fellow
 - o 2023 Ford Foundation Fellowship Alternate
 - o 2024 Southern California Academy of Sciences Student Research Grant
 - o 2024 HHMI Gilliam Fellow

Former students

- Emily Aguirre (2018-2023)
 - o Advanced to candidacy March 2020
 - o NSF GRFP Recipient
 - o Currently the Research and Restoration Lead for AltaSeeds Conservancy
- Maria Ruggeri (2018-2023)
 - o Advanced to candidacy October 2020
 - o 2018 Wrigley Institute Bakus Fellow
 - o 2019, 2021, 2022 Wrigley Summer Fellow
 - o 2020 Wrigley Bertics Fellow
 - o 2023 USC Order of Arete Recipient
 - o Currently a postdoctoral researcher with Dr. Virginia Weis, Oregon State University
- Yingqi Zhang (2018-2023)
 - o Advanced to candidacy August 2020
 - o WISE Recruitment Fellowship Recipient
 - o Currently a postdoctoral researcher with Dr. Hunter Underhill, University of Utah, Huntsman Cancer Institute
- Wyatt Million (2017-2022)
 - o Advanced to candidacy June 2019
 - o 2019 Iberostar Reef Futures Award
 - o NSF Coral Bleaching RCN Early Career Training Award
 - o Continued on to 3-yr postdoc with Dr. Maren Ziegler, Justus Liebig University, Giessen, Germany
 - o BISC Katrina Edwards Memorial Dissertation Award 2023
- Nico Lorenzen (2018-2020)

- Ph.D. (committee member, USC)
 - First Year Guidance Committees, MEB
 - Zoey Papka (2024-2025, Schwartzman Lab)
 - Kimberly Schoenberger (2022-2023, Edmands Lab)
 - Daria Di Blasi (2022-2023, Fuhrman Lab)
 - Jacob Denova (2021-2022, Edmands Lab)
 - Inessa Chandra (2019-2020, Nuzhdin/Gracey Labs)
 - Jennifer Beatty (2018-2019, Caron Lab)
 - Mackenzie Partridge (2018-2019, Edmands Lab)
 - Delaney Nolin (2018-2019, Fuhrman Lab)
 - Rae Santora (2018-2019, Fuhrman Lab)
 - Benjamin Flannagan (2017-2018, Edmands Lab)
 - Emily Aguirre, (2017-2018, Caron Lab)
 - Qualifying Exam Committees, MEB
 - Kimberly Schoenberger (2024, Edmands Lab, Committee Chair)
 - Tina Nguyen (2024, Gracey Lab)
 - Teagan Baiotto (2024, Guzman Lab)
 - Jenny Cheung (2024, Guzman Lab)
 - Jacob Denova (2024, Edmands Lab)
 - Alice Coleman (2022, Edmands Lab)
 - Jordan Chancellor (2022, Nuzhdin/Gracey Lab)
 - Inessa Chandra (2022, Nuzhdin/Gracey Lab)
 - Kyla Kelly (2020, Hutchins Lab)
 - Benjamin Flannagan (2019, Edmands Lab)
 - Melissa Dellatorre (2018, Manahan Lab)
 - Levi Simons (2018, Nuzhdin Lab)
 - Yubin Raut (2018, Capone Lab)
 - Yi-Chun Yeh (2018, Fuhrman Lab)
 - Qualifying Exam Committees, Other sections/departments
 - Jennifer Shyong (2023, Wang Lab, USC Keck School of Pharmacy)
 - Melisa Osborne (2020, Nuzhdin Lab, Molecular Biology)
 - Amanda Godbold (2019-2020, Bottjer Lab, Earth Sciences)
 - Thesis Committees, MEB
 - Levi Simons (2019-2020, Nuzhdin Lab)
 - Melissa Dellatorre (2019-2022, Manahan Lab)
 - Benjamin Flannagan (2020-2022, Edmands Lab)
 - Gerid Ollison (2021-2023, Caron Lab)
 - Alice Coleman (2022-present, Edmands Lab)
 - Thesis Committees, Other sections/departments
 - Amanda Godbold (2024, Bottjer Lab, Earth Sciences)
 - Melisa Osborne (2020-2023, Nuzhdin Lab, Molecular Biology)
 - Kirstin Washington (2019, West Lab, Earth Sciences)
 - Sara Keeble (2018-2019, Dean Lab, Biological Sciences, MCB)
 - Thesis Committees, External
 - Ann Money (2018-2020, Oklahoma State University)
 - Hannah Aichelman (2019-2023, Boston University)
 - Shelby Gantt (2020 – 2024, University of Alabama at Birmingham)
 - Sam Bogan (2019 – 2023, Univ. of California Santa Barbara)
- M.Sc. (committee member)
 - Melody Aleman (2023, USC, Fuhrman Lab)
 - Adrian Cheh (2022 – present, CSU Northridge)
 - Hanaka Mera, 2016, James Cook University, QLD, AUS (Academic Medal Recipient)

- Honours
 - Josephine Nielsen, 2016-2017, James Cook University, QLD, AUS (1st Class)
- SICB Broadening Participation Meeting Mentorship Program
 - Katherine Dougan (Florida International University 2018)
 - Holly Hoffbauer (University of Alaska Southeast 2023)
- EEB Mentor Match Program
 - Roberta Canton (Universidade Federal do Amazonas, 2018)
 - Lissandra Gonzalez (California State University Northridge, 2019)
- NSF RCN Evolution in Changing Seas Virtual Lab Meeting Program Mentor
 - Caroline Terry (University of Alabama, 2020-2021), Kaleea Korunka (College of William and Mary, 2022), Kazi Rakib Udin (Sylhet Agricultural University, 2023)

Undergraduate level

USC, Current

- Daniella Leon (Fall 2022-present)
- Damaris Ortega (Fall 2023-present)
- Garrett Ordonez (Spring 2024-present)
- Tatianna Velicer (Fall 2024-present)
- Mia Moore Walker (Fall 2024-present)

USC, Former

- Iliyan Hariyani (Fall 2022-2023)
- Sebastian Wojtowicz (Fall 2021-2023), USC Gateway Scholar
- Savannah Masters (Summer 2023) Wrigley Environmental Communications Intern
- Sibelle O'Donnell (2019-2023), USC WIES Intern 2020, Mote Marine Lab REU 2021, 2022 Provosts Summer Research Fellowship, 2024 Fulbright Research Fellow to Brazil, continued on to PhD program at UC Santa Barbara in the Vega Thurber Lab.
- Sophia Lee (Spring 2021-2023) GGURE scholarship, 2022 Dornsife SURF, continued on to lab technician position in Kenkel Lab at USC
- Marissa Fine (Fall 2021-2023)
- Shivani Gupta (Summer 2022, Wrigley Environmental Communications Intern)
- Judy Wang (Fall 2020-Spring 2021), GGURE scholarship
- Elizabeth Vasi (Summer 2020, USC Zinsmeyer)
- Lindsey Hamilton (2019-2022), USC SURF 2021
- Harold Carlson (2019-2022), NOAA Hollings Scholarship recipient, continued on to PhD program at UH Manoa in the Drazen Lab
- Shelby Barnes (2019-2020), continued on to lab technician position in Thrash Lab at USC
- Kyerstin Galloway (2019)
- Yanpui (Bruce) Chan (Summer 2019)
- Rose An (2019-2020)
- Cassidy Cunningham (Spring 2019)
- Naman Casas (Spring 2019)
- Maiah Gaines-Richardson (2018-2020), UC Santa Cruz Doris Duke Conservation Scholar 2019-2020, Provost's Research Fellowship Spring 2020, continued on to lab technician position in O'Connell Lab at Stanford University
- Alexandra Stella (2018-2020), WMSC Zinsmeyer Fellowship 2019, Order of Troy, continued on to M.Sc. at Moss Landing Marine Labs
- Melissa Xu (2018-2019)
- Connie Machuca (2017-2020), USC SURF 2019, WMSC NSF REU 2018, Fulbright Research Scholarship semi-finalist, Order of Troy, continued on to NOAA Center for Coastal and Marine Ecosystems graduate fellowship at CSU Monterey Bay
- Phoebe Chang (2017-2020)

- Hunter Ramo (2018-2019)
- Jaehyung Choi (Spring 2018)
- James Sturges (2017-2018), continued on to M.Sc. at Cal Poly Pomona
- Fulbright Applicants: Emily Nixon (2018, Finalist), Matthew Maceda (2020)

From other institutions

- Wrigley REU/Zinsmeyer Students: Kiana Hernandez (2024), Ashley Conde (2024), Tatianna Velicer (2024), Mahala Peter-Frank (2023, 2023 SACNAS travel award recipient), Sarah Padilla (2022), Maya Gardner (2021), Liam McGouldrick (2021)
- USC DIA Jumpstart Students: Anthony Insinilla (2023), Camya Brazil (2022), Jorge Reque (2022)
- Student interns: Ashley Conde (2023), Catherine Fields (2019), Aryanna Volk (2019), Lauren Howe-Kerr (2016), Alize Bouriat (2015), Vinicius Salazar (2015), Mariana Calderia (2015), Jacky Buijs (2014), Brecht Vanoverbeke (2014), Ruben Geldhof (2014), Roy Hendriks (2014), Monica Traylor (2008-2010), Sarah Guermond (2011-2012), Anna Percy (2011-2013), Albert Almanza (2011-2014), Karen Pereira (2012-2013), Sam Setta (2012-2014), Kathryn Thompson (2011), Chris Wood (2011), Ava Ibanez (2011)

Secondary School level

- Angela Estrada (2019, Young Researchers Program USC), Raven Michum-Babicki (2011)

OUTREACH:

K-12 education

- USC JEP/NAI Marine Biology Summer Course lab tour, July 2019, 2022-2024
- USC JEP/NAI Ocean Research Methods Course presentation, July 2018
- WIES Inner City Education Foundation Marine Ambassadors Lab Tour, Apr 2018
- Scientists in Schools mentor: Kirwan State High School, Jan 2016 – Dec 2016
- Invited lectures: Thuringowa State High School, 2014; The Cathedral School, 2015; Townsville State High School, 2015; All Souls St. Gabriels School, 2016; Emerald State High School, 2016; Emerald North State School, 2016
- High School Open Days @ AIMS co-coordinator, 2015
- Science Under the Stars Public Lecture Series, Children's Table Coordinator, 2013-2014
- Data Nuggets <http://datanuggets.org/2014/03/coral-bleaching-and-climate-change/>; 1,207 page visits in 2017, 2nd highest accessed DN for the entire site, translated into Spanish in 2018.
- UT High School Research Internship Program mentor 2011-12: Raven Mitchum-Babicki
- Career Day: Galindo Elementary 2013, Barrington Elementary 2010
- Girl Scouts STEM FEST volunteer, 2011

Graduate and undergraduate mentoring

- C-DEBI Global Environmental Microbiology Careers Panel, 2020
- USC Biology Club Seminar, 2019
- Tea with Trojan Scholars Society, 2018
- Faculty Mentor Workshop, 2018
- WiSE USC informal mentor lunch, 2017
- Invited presentation, Marine Science Club UT Austin, 2013
- SURGE Roads to research invited discussion panelist, 2011
- *Roads to graduate school* seminar, Mote Marine Laboratory, Sarasota, FL, June 2009

Science Communication

- Resilient Earth Radio Show & Podcast, KGUA 88.3 Sonoma-Mendocino Coasts, 13 September 2024
- Wrote NY Times Op-Ed, "Want to See Coral Reefs Grow? Freeze Them."
<https://www.nytimes.com/2024/08/15/opinion/caribbean-coral-reefs-climate-change.html>
- Taught Associated Press media training on 'Climate change at sea' in association with USC Annenberg Center for Climate Journalism, 27 October 2023.
- USC WIES Interview with Dr. Sylvia Earle, 27 September 2023.

- [Earth Month: Saving Corals](#), part of the Lecture @Fisher series complementing the exhibit *Mulyana: Modular Utopia*. April 6, 2023, 6pm, USC Fisher Museum of Art
- The European Union Clubhouse: [Good investing & saving the world's reefs](#)
- KNX Newsradio live interview on UNESCO decision to list Great Barrier Reef as endangered <https://bit.ly/2SiARpo> (start at 31:00)
- Moderator, USC Wrigley Institute Delta Murphy Distinguished Lecture 'Women, Science, and the Road to Inclusive Leadership' <https://www.youtube.com/watch?v=-JKOu15kJEA>
- Panelist for Iberostar's Wave of Change #RidingTheWave talk series on Confronting Global Warming <https://www.youtube.com/watch?v=PJ6Ki16LAao&feature=youtu.be>
- Revised digital displays associated with the California Science Center Biodiversity Exhibit tropical reef tank to incorporate coral species ranges and additional biology.
- Nature Ecology & Evolution Community blog post, "Hurricanes, octopods, and the "gene list": the challenges of ecological genomics in the sea" <https://natureecoevocommunity.nature.com/channels/521-behind-the-paper/posts/12499-tbd>
- Catch a Rising Star: Women in Science Queensland: visited Emerald, QLD to share science with local community – see [#QLDStar](#); and <https://soundcloud.com/drmaggiehardy/interview-with-qldstar-dr-carly-kenkel?in=drmaggiehardy/sets/qldstars-2016>
- Radio short "Research in 3 Minutes", Pythagoras' Trousers, initially broadcast on Radio Cardiff, repeated on Biggles FM (UK), My Daddy O'Radio (USA) and Mountainside FM (New Zealand) <https://www.mixcloud.com/pythagtrousers/050916-water-on-the-earth-preserving-recordings-hpv-vaccine-wandering-animals/>
- @realscientists "Coral Week" twitter curator, feed garnered 200k+ impressions <http://realscientists.org/2016/05/06/coral-week-carly-kenkel-on-coral-adaptation-and-evolution-and-where-to-next/>
- *Scope* Season 3, Episode 83 <http://tenplay.com.au/channel-eleven/scope/season-3/episode-83>
- Darwin Day Presenter, Texas Memorial Museum 2013
- Radio interview "They Blinded me with Science", KVRX, UT Austin, 2011
- Science Under the Stars Public Lecture Series Presenter 2011
- Annual Women in Science Day @ Ladybird Johnson Wildflower Center (2009-2012)