# Sarah W. Davies M.Sc. Ph.D.

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# **EDUCATION HISTORY**

Ph.D. in Ecology Evolution Behaviour, University of Texas at Austin, TX	2014
M.Sc. in Marine Biology, University of Calgary, AB, Canada	2009
B.Sc. in Biology, University of Victoria, BC, Canada	2004

# **EMPLOYMENT RECORD**

Assistant Professor, Boston University, Department of Biology	2017-present
Simons Foundation Life Sciences Research Foundation (LSRF) Fellow	2016-2017
Postdoctoral Research Fellow, University of North Carolina at Chapel Hill	2014-2017

# PUBLICATIONS

\*Davies lab graduate student/lab technician \*undergraduate/high school mentee, ^postdoctoral mentee, \*Corresponding author \*\*Senior author \*\*\*Senior and corresponding author

Italics: previous advisor (postdoc: A Marchetti, KD Castillo, JB Ries; PhD: MV Matz; MSc: PD Vize; BSc: TE Reimchen) **Summary Statistics** (Google Scholar): https://scholar.google.com/citations?user=ymdYYt8AAAAJ&hl=en

Citation indice	s: All	Since 2015
Citations	1109	990
h-index	16	16
i10-index	22	21
PEER REVEIWED	PRIMAR	Y RESEARCH PUBLICATIONS (36 published, 5 in review/revision)

#### 2020

- 36. \*Rodas A, ^Wright RD, \*Buie L, #Aichelman H, *Castillo KD* and **Davies SW**\*\*\*. Eukaryotic plankton community stability across reef environments in Bocas del Toro Archipelago (Panama). Accepted at *Coral Reefs* CORE-D-19-00199. https://www.biorxiv.org/content/10.1101/750356v1
- 35. <sup>+</sup>Speare L, **Davies SW**, Balmonte JP, Baumann J and *KD Castillo*. Coral bacterial community composition reveals a host species-specific resilience strategy to cope with environmental variability. *In press* at *Molecular Ecology* MEC-18-1232.

### 2019

- 34. Parkinson JE, Kenkel CD, Baums IB, Baker AC, **Davies SW**, Grottoli AG, Kitchen SA, Kuffner IB, Lajeunesse TC, *Matz MV*, Miller MW, and AA Shanzt. Molecular tools for coral reef restoration: beyond biomarker discovery. *Conservation Letters:* e12687.
- 33. ^Wright RM, Correa AMS, <sup>+</sup>Quigley LA and **SW Davies\*\*.** Gene expression of endangered coral (*Orbicella* spp.) in the Flower Garden Banks National Marine Sanctuary after Hurricane Harvey. *Frontiers in Marine Science*: 6: 672.
- 32. Baums IB, Baker AC, **Davies SW**, Grottoli AG, Kenkel CD, Kitchen SA, Kuffner IB, Lajeunesse TC, *Matz MV*, Miller MW, Parkinson JE and AA Shanzt. Considerations for maximizing the adaptive potential of restored coral populations in the western Atlantic. *Ecological Applications* 28(8):e01978.
- 31. \*Ali A, \*Laake L, \*Kriefall NG, Kenkel CD, *Matz MV* and **SW Davies**\*\*\* (2019) Recruit symbiosis establishment and Symbiodiniaceae composition influenced by adult corals and reef sediment. *Coral Reefs* 38(3): 405-415.
- 30. Bove CB, *Ries JB*, **Davies SW**, Westfield IT, Umbanhowar J and *KD Castillo* (2019) Common Caribbean corals exhibit highly variable responses to future acidification and warming. *Proceedings of the Royal Society Biology* 266.
- 29. Rippe J, #Kriefall N, **Davies SW** and *KD Castillo* (2019) Differential disease incidence and mortality of *Siderastrea siderea* and *Pseudodiploria strigosa* across inner and outer reefs of the upper Florida Keys in association with a white syndrome outbreak. In press at *Bulletin of Marine Science*.

- 28. Rippe J, Baumann J, <sup>+</sup>De Leener D, Aichelman H, Friedlander E, **Davies SW** and *KD Castillo* (2018) Corals sustain growth but not skeletal density across the Florida Keys Reef Tract despite ongoing warming. *Global Change Biology*: 24(11): 5205-5217.
- 27. #Kriefall NG, Pires A, Pechenik JA and **SW Davies**\*\*\* (2018) Resilience of the Atlantic slippersnail *Crepidula fornicata* larvae in the face of coastal acidification. *Frontiers in Marine Science* 5:312.
- 26. \*Maytin A, **Davies SW**\*, Smith G, Mullen S and PM Buston (2018) *De Novo* transcriptome assembly of the Clown Anemonefish (*Amphiprion percula*): A new resource to study the evolution of fish color. *Frontiers in Marine Science* 5:284.
- 25. Davies SW\*, Ries, JB, Marchetti A, and KD Castillo (2018) Symbiodinium functional diversity in the coral Siderastrea siderea is influenced by thermal stress and reef environment, but not ocean acidification. Frontiers in Marine Science 5: 150.
- 24. Moreno CM, Lin Y, **Davies SW**, Monbureau E, Caesar N and *A Marchetti* (2018) Examination of gene repertoires and physiological responses to iron and light limitation in Southern Ocean diatoms. *Polar Biology* 41(4): 1-18.
- 23. Baumann JH, **Davies SW**, Aichelman HE and *KD Castillo* (2018) Coral *Symbiodinium* community composition across the Belize Mesoamerican Reef System is influenced by host species and thermal variability. *Microbial Ecology* 75:4 916.

2017

- 22. Davies SW\*, Strader ME, Kool JT, Kenkel CD and *MV Matz* (2017) Modeled differences of coral life-history traits influence the refugium potential of a remote Caribbean reef. *Coral Reefs* 36:3 913-925
- 21. Pollock JF, van de Water J, **Davies SW**, Katz SM, Hein M, Torda G, *Matz MV*, Beltran V, Puill-Stephan E, Abrego D, Bourne DG and BL Willis (2017) Coral larval rearing for restoration and research. *PeerJ* 2017:03:16731.
- Rippe JP, Matz MV, Green EA, Medina M, \*Khawaja NZ, \*Pongwarin T, Pinzon C JH, Castillo KD and Davies SW\*\*\* (2017) Population structure of the mountainous stay coral Orbicella faveolata throughout the Caribbean and Gulf of Mexico basin. Ecology and Evolution 2017;00:1-13.

Prior to 2017

- 19. Advani NK, Kenkel CK, **Davies SW**, Parmesan C, Singer M and *MV Matz* (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. 241-248.
- 18. Davies SW\*, Marchetti A, Ries, JB and KD Castillo (2016) Thermal and pCO<sub>2</sub> stress elicit divergent transcriptomic responses in a resilient coral. Frontiers in Marine Science. 03:00112.
- 17. Aichelman HE, <sup>+</sup>Townsend JE, Courtney TA, Baumann JH, **Davies SW** and *KD Castillo* (2016) The temperate coral *Oculina arbuscula* exhibits a heterotrophic rescue effect to temperature stress *Ecology and Evolution*. ECE-2016-01-00052.
- 16. Cros A, Toonen RJ, **Davies SW** and SA Karl. (2016) Population genetic structure between Yap and Palau for the coral *Acropora hyacinthus*. *PeerJ* 4:e2330.
- 15. Baumann JH, <sup>+</sup>Townsend JE, Courtney TA, Aichelman HE, **Davies SW**, Lima FP and *KD Castillo* (2016) Higher maximum temperatures and temperature variability lead to decreased coral diversity on near shore lagoonal reefs in Belize. PLoS ONE. PONE-D-16-09422.
- 14. Dixon G, Davies SW, Aglyamova GA, Meyer E, Bay LK and *MV Matz* (2015) Genomic determinants of coral heat tolerance across latitudes. *Science*. 348:6242 1460-1462.
- 13. Davies SW\*, Scarpino SV, \*Pongwarin T, Scott J and *MV Matz* (2015) Estimating trait heritability in highly fecund species. *G3 Genes Genomes Genetics* g3.115.020701.
- 12. **Davies SW**\*, Treml E, Kenkel CD and *MV Matz* (2015) Exploring the role of Micronesian islands in the maintenance of coral genetic diversity in the Pacific Ocean. Molecular Ecology. 24: 70-82.
- 11. Strader ME, **Davies SW** and *MV Matz* (2015) Differential responses of coral larvae to the colour of ambient light guide them to suitable settlement microhabitat. *Royal Society Open Science* 2:150358.

- 10. Davies SW\*, Meyer E, <sup>+</sup>Guermond S and *MV Matz* (2014) A cross-ocean comparison of settlement cue specificity in reef-building corals. PeerJ 2:e333.
- 9. Green E, **Davies SW**, *Matz MV* and M Medina (2014) Quantifying cryptic *Symbiodinium* diversity within *Orbicella faveolata* and *Orbicella franksi* at the Flower Garden Banks, Gulf of Mexico. *PeerJ* 2: e386.
- 8. Quigley KM, **Davies SW**, Kenkel CD, Willis BL, *Matz MV* and LK Bay (2014) Deep-sequencing method for quantifying background abundances of *Symbiodinium* types: exploring the rare *Symbiodinium* biosphere in reef-building corals. PLoSOne 9(4): e94927.
- Davies SW\*, Matz MV and PD Vize (2013) Ecological complexity of coral recruitment processes: Effect of herbivores on coral recruitment and growth depends upon substrate properties and coral species. PLoS ONE 8(9): e72830.
- Davies SW\*, \*Rahman M, Meyer E, Green EA, Buschizzo M, Medina, M and MV Matz (2013) Novel polymorphic microsatellite loci for the endangered Caribbean star coral, *Montastrea faveolata*. Marine Biodiversity. 43(2): 167-172.
- 5. Kenkel C, Goodbody-Gringley G, Caillaud D, **Davies SW**, Bartels E and *MV Matz* (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(16): 4335-48.
- Meyer E, Davies SW, Wang S, Willis BL, Abrego D, Juenger T and MV Matz (2009) Genetic variation in responses to settlement cue and elevated temperature in a reef-building coral Acropora millepora. Marine Ecology Progress Series (MEPS) 392: 81-92.
- 3. Davies SW\* and PD Vize (2008) Effects of herbivore grazing on juvenile coral growth in the Gulf of Mexico. Proceedings of the 11<sup>th</sup> International Coral Reef Symposium. 23: 1220-1222.
- 2. *Vize PD*, Hilton JD, Brady AK and **SW Davies** (2008) Light sensing and the coordination of coral broadcast spawning behavior. Proceedings of the 11<sup>th</sup> International Coral Reef Symposium. 11: 385-388.
- 1. Davies SW, Griffiths A and *TE Reimchen* (2006) Pacific Hagfish, *Eptatretus stoutii*, Spotted Ratfish, *Hydrolagus colliei*, and scavenger activity on tethered carrion in subtidal benthic communities off Western Vancouver Island. Canadian Field-Naturalist 120(3): 363–366.

### PEER REVEIWED PRIMARY RESEARCH PUBLICATIONS IN REVIEW OR REVISION

- **Davies SW\***, Wham D, Kanke M and *MV Matz*. Contrasting population genetic structure in *Acropora* coral hosts and their algal symbionts across multiple spatial scales. In revision at *Molecular Ecology* MEC-19-0262. www.biorxiv.org/content/10/1101/575183v1
- Barfield S, **Davies SW** and *MV Matz.* Co-recruitment of relatives leads to emergence of an inbred genetically isolated group within a panmictic population of a broadcast-spawning reef-building coral. In review at *Molecular Ecology.*
- \*Aichelman HA, Bove CB, Castillo KD, \*Boulton JM, \*Knowlton AC, \*Nieves OC, Ries JB and SW Davies\*\*\*. Exposure duration modulates the response of Caribbean corals to global change stressors. In review at Limnology and Oceanography LO-20-0398.
- ^Rivera HE, #Aichelman HA, #Fifer JE, #Kriefall NG, #Wuitchik DM, Wuitchik SJS and SW Davies\*\*. A framework for understanding gene expression plasticity and its influence on stress tolerance. *Molecular Ecology* MEC-20-0932.
- Shore AN, JA Sims, M Grimes, LI Howe-Kerr, L Stadler, J Sylvan, K Shamberger, **SW Davies**, LZ Santiago-Vázquez, AMS Correa. Offshore transport of floodwaters following extreme storms impacts sponge health and associated microbial communities. *MSystems* mSystems00758-20.

### PEER REVEIWED PRIMARY RESEARCH PUBLICATIONS IN PREPARATION

Strader ME, #Aichelman HE, #Benson B, Howe-Kerr L, Hickerson E and **SW Davies**\*\*. Spawning observations at the Flower Garden Banks suggest cross fertilization between shallow and deep-water reef-building corals.

- \*Reyes CL, \*Benson BE, Levy M, Pires A, Pechenik JA and **SW Davies**\*\*\*. Effects of ocean acidification on *Crepidula fornicata* physiology and gene expression across two life history stages.
- \*Wuitchik DM, \*Reyes C, \*Benson BE, \*Almanzar A, \*Brennan S, \*Chavez D, \*Liesegang M, \*Reavis K, \*Schniedewind M, \*Trumble I and SW Davies\*\*\*. Convergent stress response repertoires to thermal challenges in a temperate aposymbiotic coral.
- *Castillo KD*, **Davies SW\***, Bove CB and *JB Ries*. Local adaptation of a reef-building coral is facilitated through transcriptome plasticity but limited by strong environmental selection.
- Mansfield KM, Cleves PA, van Vlack A, "Kriefall NG, "Benson BE, Camacho DJ, 'Hemond O, Pedroza M, Siggers TW, Pringle JR, **Davies SW**<sup>\*\*\*</sup> and TD Gilmore. Varied effects of algal symbionts on transcription factor NFκB expression in a sea anemone and a coral: possible roles izn symbiosis and thermal tolerance.
- **Davies SW\*** and *MV Matz*. Heritability of dispersal-related traits and associated gene expression in a reefbuilding coral.

#### OTHER NON-PEER REVIEWED PUBLICATIONS

- Warner ME, Barshis D, **Davies SW**, Grottoli AG, LaJeunesse TC and R van Woesik (2017) Investigating coral bleaching in a changing climate: Our state of understanding and opportunities to push the field forward. Report from the NSF U.S. Investigator Workshop on Coral Bleaching, 17-18 June 2016
- Children's Book: "Made For Each Other" by Templar Publishing, London, UK. *In Production* Role: Scientific Consultant

#### **GRANTS AWARDED**

- National Science Foundation IOS-SDS 1937650: Transcription Factors in Cnidarian Immunity, Symbiosis and Bleaching. T. Gilmore P.I., \$920,972, Role: Co-PI
- *Gordon and Betty Moore Foundation:* 2020-2021 Coral Symbiosis Genome Project: Michael Sweet, Role: co-PI, \$3,000,000
- *The National Academies of Sciences: Gulf Research Program Early Career Fellowship 2018-20:* Reef connectivity and resilience in the Gulf of Mexico. **SW Davies P.I.,** \$76,000
- *National Atmospheric and Oceanic Administration 2018-19*: NOAA-NOS-ONMS-2018-2005606: Sharing Flower Garden Banks with the World Through Telepresence. D. Lovalvo P.I., \$987,679, Role: co-PI \$30,672
- National Science Foundation, RAPID OCE-1800904: Collaborative Research 2017-18: Impact of freshwater runoff from Hurricane Harvey on coral reef benthic organisms and associated microbial communities. AMS Correa P.I., \$199,997, Role: Co-PI \$32,248
- National Science Foundation, OCE 1459522 Supplement 2017-18: Storm impact and resilience of coral communities across spatial scales on the Florida Keys. KD Castillo, P.I., \$150,000, Role: Senior Personnel \$40,233
- *National Science Foundation,* **REU Site 2017-21:** Control of Gene Expression for Biological Effect. TD Gilmore, P.I., \$477,763, Role: Senior Personnel
- Life Sciences Research Foundation (LSRF) Postdoctoral Fellowship 2016-17: Investigating the 'weak link' paradigm: Can corals regulate their symbiont's environment to buffer climate change? SW Davies, P.I. \$50,000 salary + \$10,000 research funds for three years, elected termination June 2017
- **National Science Foundation, OCE 1459522 2014-17:** Investigating the influence of thermal history on coral growth response to recent and predicted end-of-century ocean warming across a cascade of ecological scales. KD Castillo, P.I., \$602,933, Role: Named Postdoctoral Researcher
- National Science Foundation, Doctoral Dissertation Improvement Grant (DEB 1311225) 2013-14: Evolution of Dispersal in Reef-Building Corals. MV Matz and SW Davies, \$19,740
- University of Texas at Austin Powers Graduate Fellow 2012-13: Prestigious research fellowship awarded by President Bill Powers for full time research towards dissertation. \$36,000 USD

- *Institut des Récifs Coralliens du Pacifique (IRCP) Fellow 2013*: Host and symbiont genetic structure in reefbuilding corals across varying reef environments in French Polynesia. **SW Davies**, € 4500. Awarded by *L'ecole Pratique des Hautes Etudes (EPHE)*
- *Ecology Evolution and Behavior Doctoral Dissertation Improvement Grant 2011-12*: Understanding the Potential for Range Shifts in Reef-Building Corals. **SW Davies**, P.I., \$8,000
- PADI Foundation Research Award 2010: What limits Recruitment on Caribbean Reefs? SW Davies, P.I., \$5,841
- *Ecology Evolution and Behavior Start-up Grant 2010*: Limitations for Coral Recruitment in the Gulf of Mexico. **SW Davies**, P.I., \$2,000
- Natural Sciences and Engineering Research Council of Canada Post Graduate Scholar Doctoral (NSERC PGS-D) 2009-2012: Prestigious research fellowship awarded by NSERC in support of full time research towards PhD dissertation. \$63,000 CAD
- Natural Sciences and Engineering Research Council of Canada Post Graduate Scholar Masters (NSERC PGS-M) 2007-08: Prestigious research fellowship awarded by NSERC in support of full time research towards M.Sc. thesis. \$21,000 CAD

#### **GRANTS PENDING**

- *King Abdullah University of Science and Technology (KAUST) Competitive Research Grant (CRG) 2020*: An integrative investigation of larval coral reef fish development: Linking genotype to phenotype. Role: co-PI, \$250,391
- Arnold & Mabel Beckman Foundation: 2021 Beckman Scholars Program: Thomas D. Gilmore, Role: co-PI, \$156,000
- *Guam Seagrant 2020-2021:* Taking an archipelago-wide perspective to predict coral resilience on reefs of the Marianas. Combosch. Role: co-PI, \$39,148.

#### **AWARDS & HONORS**

- **Coral Reef Hero 2020,** Environment, Coastal and Offshore (ECO) magazine: Awarded for making significant contributions to the field for our 2019 paper published in Ecological Applications.
- Patricia McLellan Leavitt Research Fund 2019, Boston University: Awarded to support research of junior faculty members who demonstrate a commitment to encouraging women to study science, \$12,000
- **Postdoctoral Award for Research Excellence 2016,** University of North Carolina at Chapel Hill: Awarded for research accomplishments and potential to becoming a research scholar, \$1,000
- **Postdoctoral Scholar Award for Excellence in Mentoring Undergraduates 2016,** University of North Carolina at Chapel Hill: Awarded for excellence in mentoring from the Office of Postdoctoral Affairs
- **UNC Postdoctoral Travel Award 2015,** University of North Carolina at Chapel Hill: Awarded to attend the 13<sup>th</sup> International Coral Reef Symposium, \$500.00
- **Ecology Evolution and Behavior (EEB) Travel Award 2013**, University of Texas at Austin: Awarded to attend the Gordon Ecological and Evolutionary Genomics Conference, \$1,250
- **Programming for Evolutionary Biology Award 2012**, University Leipzig, Germany: Awarded to attend the threeweek programming for biology workshop, € 2,700
- **Featured in** *In Vivo* **Magazine 2012**, University of Texas at Austin: Nominated by the department as an outstanding graduate student in the "Graduate Students Making a difference" article, Spring 2013
- **Graduate Dean's Prestigious Fellowship Supplement 2011-12,** University of Texas at Austin: Supplement awards for students who hold competitive, external, prestigious, full (typically \$12,000 or more) fellowships recognizing the student's academic achievements, \$1,000.
- **Outstanding Teaching Award in Biology 2010, University of Texas at Austin**: An award given out to exceptional Teaching Assistants who demonstrate consistently high student reviews and are nominated by their primary teaching mentor.

Queen Elizabeth II Graduate Scholarship 2009, University of Calgary: Highly competitive award based on academic excellence and research achievements, \$3,600

11<sup>th</sup> ICRS Field Trip Scholarship Award 2008, International Coral Reef Society

- **URGC Conference Travel Grant 2007**, University of Calgary: Supports travel expenses to attend and present original research at a conference, \$2,000
- ACCESS Entrance Fellowship 2006-07, University of Calgary: Awarded to all incoming graduate students, \$15,000

### **PROFESSIONAL SERVICE**

- Session chair, Symposium: ICRS20-107: What role does phenotypic plasticity play in acclimatization or adaptation to environmental change?; **14<sup>th</sup> International Coral Reef Symposium**, Bremen, Germany, 2020
- Session co-chair, Symposium: ICRS20-133: How can we leverage advances in evolutionary ecology to maximize the adaptive potential of restored coral populations?; **14**<sup>th</sup> International Coral Reef Symposium, Bremen, Germany, 2020
- Member, Working Group: Caribbean Coral Restoration Genetics of the Coral Restoration Consortium; 2018current
- *Invited Participant, Workshop: Astrangia poculata* and *Oculina arbuscula* as model systems of symbiosis; *Astrangia* Workshop, Roger Williams University, Bristol, RI 2019
- Session Chair, Symposium: Do'in it with the dinoflagellates- Coral Reef Biology; Society of Integrative and Comparative Biology, Tampa FL, USA 2019
- *Organizer and Session Chair, Symposium:* Resilience of Coral Ecosystems in the Gulf of Mexico; **Gulf of Mexico Oil Spill & Ecosystem Science Conference (GOMOSE)**, New Orleans LA, USA 2019
- Invited Participant, Workshop: Effects of high and low temperature stress on Astrangia poculata; Astrangia Workshop, Roger Williams University, Bristol, RI 2018
- *Invited Participant, Working Group*: Caribbean Coral Restoration Genetics of the **Coral Restoration Consortium**; Pennsylvania State University, State College, PA 2018
- *Invited Participant, Workshop:* Coral transcriptomic responses to the 2016 EFGB localized mortality event. **Flower Garden Banks Mortality Event Mini-Symposium;** Flower Garden Banks National Marine Sanctuary Office, Galveston, Texas 2018
- Steering Committee Member, Workshop: Molecular Biology of Coral Bleaching, National Science Foundation Coral Bleaching Workshop; Honolulu, Hawaii 2016
- Session Chair, Symposium: Acclimatization and Adaptation in Reef Organisms; **13**<sup>th</sup> International Coral Reef Symposium, Honolulu HI, USA 2016
- Lead Organizer, Workshop: Intro to Linux and Single locus Metabarcoding analysis; Department of Marine Sciences, University of North Carolina, Chapel Hill, NC 2015
- Invited Participant, Public Forum: 'Genetic Rescue' of coral reefs from warming oceans; United States Geological Service (USGS) Southeast Climate Science Centre (SECSC), online 2015
- Session Chair, Symposium: Population Genetics; Society of Integrative & Comparative Biology, Austin TX, 2014
- Invited Participant, Stakeholders Meeting: From Coral Spawning to Coral Conservation: 6 years of research at the FGBNMS; Sanctuary Advisory Council of the Flower Garden Banks National Marine Sanctuary (FGBNMS), Galveston, TX 2013
- Lead Organizer, Workshop: Microsatellite Design and Analysis, James Cook University (JCU), Townsville, Queensland, Australia 2011
- Reviewer for: National Science Foundation (NSF), Nature Climate Change, Scientific Reports, Molecular Ecology, Science Advances, PloSOne, Molecular Ecology Resources, Conservation Genetic Resources, Marine Biodiversity, Journal of Experimental Marine Biology and Ecology, Coral Reefs, Limnology and Oceanography, PeerJ, Marine Ecology Progress Series, Biological Bulletin, ISME

#### **INVITED SEMINARS**

- Davies, SW (2020) Using genomics to understand stress responses in reef-building corals. **Gloucester Marine Genomics Institute Science Forum**, Gloucester, MA. Canceled due to COVID-19
- Davies, SW (2020) The influence of spatiotemporal variation on coral performance in changing environments, **Pennsylvania State University**, State College, PA. Canceled due to COVID-19
- Davies, SW (2020) Coral Symbiosis in a Changing World, **University of Delaware**, Lewes, DE. Canceled due to COVID-19
- Davies, SW (2019) The influence of spatiotemporal variation on coral performance in changing environments, **Tufts University**, Sommerville, MA
- Davies, SW (2019) The influence of spatiotemporal variation on coral performance in changing environments, Scripps Institution of Oceanography, La Jolla, CA
- Davies, SW (2019) The influence of spatiotemporal variation on coral performance in changing environments, **Biology Department at Clark University**, Worcester, MA
- Davies, SW (2018) Coral Symbiosis in a Changing World, **Department of Marine and Environmental Sciences Northeastern University**, Nahant, MA
- Davies, SW (2018) Investigating the extent of coral host modulation of the symbiosome under thermal stress, EBE Chalk Talk Series, **Boston University**, Boston, MA
- Davies, SW (2018) Corals Symbiosis in a Changing World, University of North Carolina, Chapel Hill, NC
- Davies, SW (2018) Coral Symbiosis in a Changing World, University of Massachusetts Dartmouth SMAST Department of Estuarine and Ocean Sciences, New Bedford, MA
- Davies, SW (2018) Mechanisms of coping with rapid environmental change in reef-building corals, **University of Rhode Island**, Kingstown, RI
- Davies, SW (2016) Acclimatization and Adaptation of Corals, East Carolina University, Greenville, NC
- Davies, SW (2016) Mechanisms of coping with environmental change in reef-building corals, **Texas State University**, San Marcos, TX
- Davies, SW (2016) Mechanisms of coping with environmental change in reef-building corals, **Columbia University**, New York, NY
- Davies, SW (2016) Mechanisms of coping with environmental change in reef-building corals, **Boston University**, Boston, MA
- Davies, SW (2016) Mechanisms of coping with environmental change in reef-building corals, **Tulane University**, New Orleans, LA
- Davies, SW (2015) Using genetic and genomic tools to understand the ecology and physiology of reef-building corals, **Department of Marine and Environmental Sciences Northeastern University**, Nahant,
- Davies, SW (2015) Using genetic and genomic tools to understand the ecology and physiology of reef-building corals, **Curriculum for the Environment and Ecology, UNC Chapel Hill,** Chapel Hill, NC
- Davies, SW (2014) Genomic approaches to understanding larval dispersal, **Department of Biological Sciences**, **Old Dominion University**, Norfolk, VA
- Davies, SW (2014) Understanding coral dispersal, **Department of Marine Sciences, UNC Chapel Hill**, Chapel Hill, NC
- Davies, SW (2014) Global gene expression profiling using tag-based RNA-Seq: A powerful tool for ecological genetics, **Byte Club University of Texas at Austin**, Austin, TX
- Davies, SW (2013) Genetic connectivity across Micronesia: migration-selection balance and the complexity of symbiosis in reef building corals, **CRIOBE Marine Station**, Moorea, French Polynesia
- Davies, SW (2011) Caribbean coral recruitment: a mismatch between larvae and settlement cues?, Australia Institute of Marine Science (AIMS), Townsville QLD Australia
- Davies, SW (2011) Caribbean coral recruitment: a mismatch between larvae and settlement cues? James Cook University (JCU), Townsville QLD Australia

**CONTRIBUTED PRESENTATIONS** Graduate student/Lab Technician<sup>#</sup> Undergraduate/high school student<sup>+</sup> ^Postdoc

- Voss JD, **Davies SW**, Brugler M, Schmahl GP, Hickerson E, Echert R, Pomponi S, Ryan M and D Lovalvo (2020) Using teleprescence to enhance coral reef exploration in Flower Garden Banks National Marine Sanctuary. Benthic Ecology Meeting. Wilmington, NC.
- **Davies, SW** and *MV Matz* (2020) Heritability of dispersal-related traits and associated gene expression in a reefbuilding coral. ICRS Bremen, Germany
- Rivera HE<sup>^</sup>, Williams LM, Gilmore TD and **SW Davies** (2020) Heterotrophy modulates bleaching and immunity under thermal stress in a facultatively symbiotic coral? ICRS Bremen, Germany.
- Wuitchik D<sup>#</sup>, Aichelman HE<sup>#</sup>, Atherton K<sup>#</sup>, Kriefall N<sup>#</sup> and **SW Davies** (2020) Symbiotic state influences the transcriptional responses to thermal extremes in facultatively symbiotic corals. ICRS Bremen, Germany.
- Benson BE<sup>#</sup>, Aichelman HE<sup>#</sup>, Bauman J, Nieves O<sup>+</sup>, Stanizzi D<sup>+</sup>, *Castillo KD* and **SW Davies** (2020) Diel thermal variation supports growth and symbiosis in a reef-building coral. ICRS Bremen, Germany.
- Aichelman HE<sup>#</sup>, Wuitchik DM<sup>#</sup>, Atherton KF<sup>#</sup>, Kriefall NG<sup>#</sup>, BUMP MPCC<sup>+</sup> and **SW Davies** (2020) Do facultative coral hosts buffer their symbionts in response to thermal extremes? ICRS Bremen, Germany.
- Fifer J<sup>#</sup>, Yamakita T, Yasuda N and **SW Davies** (2020) Demographic inferences and loci under selection in a recently expanded coral population. ICRS Bremen, Germany
- Kriefall N<sup>#</sup>, Rippe JP, *Castillo KD* and **SW Davies** (2020) Cross-reef impacts of Hurricane Irma on coral-associated communities along the Florida Keys. ICRS Bremen, Germany
- Stankiewicz K, Kitchen S, Guiglielmoni N, Flot J, Barott K, **Davies SW**, Finerty J, Grace S, Kaufman L, Putnam H, Rotjan R, Sharp K and I Baums (2020) Using the *Astrangia poculata* genome as a model for understanding cnidarian evolution and symbiosis. ICRS Bremen Germany
- Bove CB, **Davies SW**, *Ries JB*, Umbanhowar J, MccoppiN J, Farquhar E, and *KD Castillo* (2020) Physiological and transcriptomic responses of coral hosts and algal symbionts of four Caribbean corals under global change. ICRS Bremen, Germany
- Rippe JP, Baumann JH, Bove CB, Aichelman HE<sup>#</sup>, **Davies SW** and *KD Castillo* (2020) Environmental drivers of coral growth across the western Caribbean Sea and Florida Keys. ICRS Bremen, Germany
- Shore A, Doyle S, Wright R<sup><</sup>, Kealoha A, Grupstra C, Howe-Kerr L, MacKnight N, Conetta D, Mydlarz L, Santiago-Vazquez L, Shamberger K, Sylvan J, **Davies SW** and A Correa (2020) Integrating across the water column and benthos to understand triggers and effects of hypoxic stress on coral reefs. ICRS Bremen, Germany
- Griffith A, Rippe JP, Kriefall N<sup>#</sup>, Aichelman HE<sup>#</sup>, **Davies SW** and *KD Castillo*. Impacts of Hurricane Irma on coral growth across inshore and offshore reefs of the Florida Keys. ICRS 2020, Bremen, Germany.
- Scavo Lord K, Lesneski K, Bengtsson Z, Kuhn K, Madin J, **Davies SW**, Cheung B, Ewa R, Taylor J, Burmester E, Kaufman L and J Finnerty (2020) Population dynamics of a reef coral in a non-reef habitat. ICRS Bremen, Germany
- Smith S, Shamberger KEF, Barrett L, Hooper M, Sylvan JB, Correa A, Santiago-Vazquez LZ, and **SW Davies** (2020) Seawater Carbonate Chemistry at the Flower Garden Banks National Marine Sanctuary in the Northwestern Gulf of Mexico Following Hurricane Harvey. Ocean Sciences Meeting, San Diego, CA
- Rivera HE<sup>^</sup> and **SW Davies** (2020) What does it take to stay together? Uncovering symbiosis gene networks in a facultatively symbiotic coral. SICB Austin, TX
- Fifer J<sup>#</sup>, Bui V<sup>+</sup>, Berg J, Gabriel M, Bentlage B and **SW Davies** (2020) Coral microbial community shifts along a steep environmental gradient. SICB Austin, TX
- Benson BE<sup>#</sup>, Aichelman HE<sup>#</sup>, Baumann JH, Nieves OC<sup>+</sup>, Stanizzi DA<sup>+</sup>, *Castillo KD* and **SW Davies** (2020) Diel thermal variation supports growth and symbiosis in a reef-building coral. SICB Austin, TX
- Bove CB, **Davies SW**, *Ries JB*, Umbanhowar J, MccoppiN J, Farquhar E, and *KD Castillo* (2020) Physiological and transcriptomic responses of coral hosts and algal symbionts of four Caribbean corals under global change. SICB Austin TX
- Aichelman HE<sup>#</sup>, Wuitchik DM<sup>#</sup>, Atherton KF<sup>#</sup>, Kriefall NG<sup>#</sup>, BUMP MPCC<sup>+</sup> and **SW Davies** (2020) Do facultative coral hosts buffer their symbionts in response to thermal extremes? SICB Austin, TX

- Aichelman HE<sup>#</sup>, Bove CB, *Castillo KD*, Boulton JM<sup>+</sup>, Knowlton AC<sup>+</sup>, Nieves OC<sup>+</sup>, *Ries JB* and **SW Davies** (2020) Time Course Physiology of Caribbean Corals Reveals Divergent Responses to Global Change Stressors. SICB Austin TX
- Wright R<sup>^</sup>, Nuttall M and **SW Davies** (2020) Gene expression in response to experimental low dissolved oxygen supports the hypothesis that hypoxia contributed to a natural coral mortality event. SICB Austin, TX
- Pincher C<sup>+</sup>, Wuitchik D<sup>#</sup>, Vize PD and **SW Davies** (2019) Lunar Phase, Hour of the Day, and Seasonal Temperature Drive Symbiont *C. goreaui* Expression in *A. millepora* Coral Host. Annual Biomedical Research Conference for Minority Students Anaheim, CA
- Wright RM<sup>^</sup>, Kriefall NG<sup>#</sup> and **SW Davies** (2019) *Astrangia* in the classroom: Building an educational resource community. Astrangia Workshop, Roger Williams University, RI
- Wuitchik D<sup>#</sup>, Almanzar A<sup>+</sup>, Benson B<sup>^</sup>, Brennan S<sup>+</sup>, Chavez D<sup>+</sup>, Liesegang M<sup>+</sup>, Reavis J<sup>+</sup>, Schniedewind M<sup>+</sup>, Trumble I<sup>+</sup> and **Davies SW** (2019) Genomic basis of convergent phenotypic responses to thermal extremes in a temperate coral. Astrangia Workshop, Roger Williams University, RI
- Rivera H<sup>^</sup> and **SW Davies** (2019) What does it take to stay together? Uncovering symbiosis gene networks in a facultatively symbiotic coral. Astrangia Workshop, Roger Williams University, RI
- Davies SW and R Wright<sup><</sup> (2019) Coral and algal symbiont gene expression signatures of a mass die-off event in the Texas Flower Garden Banks. Gulf of Mexico Oil Spill & Ecosystem Science Conference (GOMOSE), New Orleans LA, USA
- **Davies SW**, *Castillo KD*, Bove CB and *JB Ries* (2019) Local adaptation and transcriptome plasticity of a resilient Caribbean coral. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Rippe JP, Baumann JH, *Castillo KD* and **SW Davies** (2019) Coral connectivity on the Belize Barrier Reef: Is gene flow sufficient to foster reef-scale adaptation to ocean warming? Society of Integrative & Comparative Biology, Tampa Bay, FL
- Bove CB, **Davies SW**, *Ries JB*, Umbanhower J and *KD Castillo* (2019) Ocean acidification and warming impact physiology of the algal symbiont to a greater extent than the host in four common Caribbean corals. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Aichelman HA<sup>#</sup>, Bove CB, *Castillo KD*, Boulton JM<sup>+</sup>, Knowlton AC<sup>+</sup>, *Ries JB* and **SW Davies** (2019) Reef zone-specific physiological responses of two Caribbean corals exposed to multiple global change stressors. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Reyes CL<sup>+</sup>, Benson BE<sup>#</sup>, Levy M, Pires A, Pechenik JA and **SW Davies** (2019) Effects of ocean acidification on *Crepidula fornicata* physiology and gene expression across two life history stages. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Rodas A<sup>+</sup>, Wright R<sup><</sup>, Buie L<sup>+</sup>, Aichelman HA<sup>#</sup>, *Castillo KD* and **SW Davies** (2019) Environmental variation and splankton genetic diversity across inshore and offshore coral reefs. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Benson BE<sup>#</sup>, *Castillo KD*, Baumann JH, Aichelman HE<sup>#</sup>, Stanizzi DA<sup>+</sup> and **SW Davies** (2019) Increased diel thermal variability promotes growth and symbiosis in a reef-building coral. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Wright R<sup><</sup>, Nuttall M and **SW Davies** (2019) Coral gene expression signatures of a mass die-off event in the Texas Flower Garden Banks. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Kriefall NG<sup>#</sup>, *Matz MV*, Kanke M and **SW Davies** (2019) Host and symbiont genetic structure in the coral *Acropora hyacinthus* across two divergent reef zones. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Wuitchik D<sup>#</sup>, Almanzar A<sup>+</sup>, Benson BE<sup>#</sup>, Brennan S<sup>+</sup>, Chavez D<sup>+</sup>, Liesegang M<sup>+</sup>, Reavis J<sup>+</sup>, Schniedewind M<sup>+</sup>, Trumble I<sup>+</sup> and **SW Davies** (2019) Genomic basis of convergent phenotypic responses to thermal extremes in a temperate coral. Society of Integrative & Comparative Biology, Tampa Bay, FL
- Kenkel CD, Baums IB, Baker AC, Davies SW, Grottoli AG, Kitchen SA, Kuffner IB, LaJeunesse TC, Matz MV, Miller MW, Parkinson JE, and AA Shantz (2018) Population genetic considerations for coral restoration, Reef Futures, Key Largo, FL

- Parkinson JE Baums IB, Baker AC, Davies SW, Grottoli AG, Kenkel CD, Kitchen SA, Kuffner IB, LaJeunesse TC, Matz MV, Miller MW, and AA Shantz (2018) Molecular tools for coral reef restoration: beyond biomarker discovery. Reef Futures, Key Largo, FL
- Miller MW, Baums IB, Baker AC, **Davies SW**, Grottoli AG, Kenkel CD, Kitchen SA, Kuffner IB, LaJeunesse TC, *Matz MV*, Parkinson JE and AA Shantz (2018) Restoration provence strategies to improve climate resilience. Reef Futures, Key Largo, FL
- Shantz AA, Baums IB, Baker AC, Davies SW, Grottoli AG, Kenkel CD, Kitchen SA, Kuffner IB, LaJeunesse TC, Matz MV, Miller MW and Parkinson JE (2018) Incorporating phenotypic traits in coral restoration. Reef Futures, Key Largo, FL
- Baums IB, Baker AC, **Davies SW**, Grottoli AG, Kenkel CD, Kitchen SA, Kuffner IB, LaJeunesse TC, *Matz MV*, Miller MW and Parkinson JE and AA Shantz (2018) How to maximize future adaptive potential of restored coral populations. Reef Futures, Key Largo, FL
- Mansfield K, Cleves P, Van Vlack E, **SW Davies** and TD Gilmore (2018) Transcription factor NF-κB is Modulated by Symbiotic Status in the Sea Anemone Aiptasia, Cnidofest, St. Augustine, FL
- Kriefall NG<sup>#</sup> and SW Davies (2018) Contrasting genetic structures of inshore and offshore coral communities in French Polynesia. Society for Women in Marine Science Symposium, University of Rhode Island, Kingstown, RI
- Benson BE<sup>#</sup>, Baumann JH, Aichelman HE<sup>#</sup>, *Castillo KD* and **SW Davies** (2018) Influence of daily temperature variation on growth and survival of a reef-building coral. Society for Women in Marine Science Symposium, University of Rhode Island, Kingstown, RI
- Reyes C<sup>+</sup>, **Davies SW** and JA Pechenik (2018) Effects of ocean acidification on the intertidal snail *Crepidula fornicata*. Society for Women in Marine Science Symposium, University of Rhode Island, Kingstown, RI
- Galeas KD<sup>+</sup>, Rodas AM<sup>+</sup>, Stanizzi DA<sup>+</sup>, Pereslete AM<sup>+</sup>, Benson BE<sup>#</sup>, Baumann JH, Aichelman HA<sup>#</sup>, *Castillo KD* and **SW Davies** (2018) Physiological responses of a reef-building coral to thermal variability regimes. Society for Women in Marine Science Symposium, University of Rhode Island, Kingstown, RI
- Williams B<sup>+</sup>, Wong T<sup>+</sup>, Kriefall NG<sup>#</sup>, Rippe JP, *Castillo KD* and **SW Davies** (2018) Storm impact on coral communities across reef zones in the Florida Keys. Society for Women in Marine Science Symposium, University of Rhode Island, Kingstown, RI
- Ali A<sup>+</sup>, Laake L<sup>+</sup>, Kenkel CD, Kriefall NG<sup>#</sup>, *Matz MV* and **SW Davies** (2018) Horizontal transmission of *Symbiodinium* in *Pseudodiploria strigosa* is facilitated by local sediment but is independent of adult coral reservoirs. Society for Women in Marine Science Symposium, University of Rhode Island, Kingstown, RI
- Kriefall NG<sup>#</sup>, Rippe JP, *Castillo KD* and **SW Davies** (2018) Comparing inshore and offshore corals impacted by severe storm disturbance. Biogeoscience Symposium, Boston University, Boston, MA
- Kriefall NG<sup>#</sup> and **SW Davies** (2018) Contrasting community compositions of inshore and offshore *Symbiodinium* within coral hosts. Boston University Microbiome Day, Boston, MA
- Maytin A<sup>+</sup>, Buston P, Smith G<sup>+</sup>, **Davies SW** and S Mullen (2017) How the clownfish got its stripes: Investigating the genetic basis of Anemonefish coloration. BU Undergraduate Research Symposium, Boston, MA
- **Davies, SW** *Castillo KD, Marchetti A* and *JB Ries* (2017) Effects of long-term warming and acidification on coralalgal symbiosis: A transcriptomic perspective, Society of Integrative & Comparative Biology, New Orleans, LA
- **Davies, SW**, *Castillo KD*, *Marchetti A* and *JB Ries* (2016) Investigating the 'weak link' paradigm: Can hosts regulate their symbiont's environment to buffer the effects of climate change? Life Sciences Research Foundation (LSRF) Conference, Seattle WA.
- **Davies, SW** and *MV Matz* (2014) Molecular determinants of dispersal potential reef-building coral larvae. Society of Integrative & Comparative Biology, Austin TX, USA
- **Davies, SW**, E Treml, C. Kenkel and *MV Matz* (2014) Understanding connectivity of *Acroporid* corals across remote islands using genetics and biophysical modelling. Society of Integrative & Comparative Biology 2013, San Francisco CA, USA. Presentation featured by SICB Public Affairs

- **Davies, SW** and *MV Matz* (2014) Migration-Selection Balance: The added complexity of symbiosis in reefbuilding corals. Society of Integrative & Comparative Biology, Austin TX, USA
- **Davies, SW,** E Treml, C. Kenkel and *MV Matz* (2012) Understanding connectivity of *Acroporid* corals across remote islands using genetics and biophysical modelling. International Coral Reef Symposium, Cairns, Queensland, Australia
- **Davies, SW** and *MV Matz* (2013) Heritability of dispersal-related traits and gene expression in coral larvae. Gordon Ecological & Evolutionary Genomics Conference, Biddeford, ME
- **Davies, SW** and *MV Matz* (2012) Lack of Caribbean coral recruitment: A mismatch between larvae and settlement cues? Society of Integrative & Comparative Biology, Charleston, SC
- **Davies, SW** and *MV Matz* (2011) Lack of coral recruitment in the Northern Caribbean: Suggestions from a "corals and cues around the world" experiment. Ecological Society of America, Austin, TX
- **Davies, SW** and *P Vize* (2009) Effects of invertebrate herbivores on coral recruitment and growth in the Gulf of Mexico. Benthic Ecology Meeting, Corpus Christi, TX
- **Davies, SW** and *P Vize* (2008) Effects of herbivore grazing on juvenile coral growth in the Gulf of Mexico. International Coral Reef Symposium, Ft Lauderdale, FL

#### **TEACHING EXPERIENCE**

Biology 671: EBE Grant writing course 2020: Teaching incoming PhD students

- New Course Development 2018-19: Ecological and Evolutionary Genomics: Developing new 500 level course that is being taught Spring 2019 (2019 overall rating: 4.8/5)
- New Course Development 2017-18: Marine Physiology and Climate Change: Developed and taught course during Boston University's Marine Program's Marine Semester (2019 overall rating: 4.6/5)
- Effective College Teaching Workshop 2015, University of North Carolina at Chapel Hill: Covered course planning, learning styles, implementing active learning techniques, dealing with student issues, and collaborative learning strategies.
- **Intro to Programming and R for Biologists at UNC 2015:** Prepared and taught a series of programming and R statistical/graphical classes for undergraduate and graduate students in the Marine Sciences Department.
- **Undergraduate Guest lectures 2015-18:** UNC-CH: Marine Science, Biological Oceanography, and Ecological Genomics; Northeastern University: Global Oceanic Change. Prepared and gave lectures and learning exercises: Class sizes 10-120 students.
- Assistant Instructor Methods in Ecological Genomic Analysis (MEGA) 2014, Mote Marine Tropical Research Laboratory: Directly involved in the planning and implementation of all coursework. Targets scientists of all levels working on non-model systems with limited genomics experience. Two modules were taught: gene expression analysis using tag-based RNA-Seq and whole-genome genotyping using 2bRAD-Seq.
- Teaching Certificate in Interdisciplinary Instruction 2012-13, University of Texas at Austin, Advisor: Professor Silverthorn: Semester long course where I collaborated on course design and teaching of an undergraduate signature course 'Medicine in the 21st Century', which aims to develop college-level skills in research, writing, public speaking, and discussion through an approach that is interdisciplinary, collaborative, experiential and contemporary.
- Supervised Teaching in Biological Sciences 2012, University of Texas at Austin: College teaching training course about successful teaching and how to engage students. The course included discussion of teaching approaches, attendance of a variety of seminars, seminar delivery and feedback, observation of undergraduate classes, and syllabus preparation.
- **Teaching Assistant 2009-2013, University of Texas at Austin:** Courses included: "The Human Body", "Invertebrate Zoology", "Experimental Physiology" and co-developed an undergraduate signature course (UGS) "Medicine in the 21<sup>st</sup> Century".
- Teaching Assistant 2006-2007, University of Calgary: Courses included: "Molecular Biology".

## MENTORING EXPERIENCE

# Postdoctoral Research Fellows

- 1. Rachel Wright 2017-2019: Now Assistant Professor position at Smith College
- Hanny Rivera: BU Postdoctoral Associate/Lecturer, Started January 2019 Awarded \$6,000 PADI grant 2019

# Lab Technicians

1. Brooke Benson: September 2017-June 2019 Started PhD at UC Davis 2019, awarded NSF GRFP 2019

# Ph.D. Students

- 1. Nicola Kriefall (EBE): Started Fall 2017
  - WDHOF Award 2019 \$2,000, Warren Macleod Award Summer 2019, Warren Macleod Award Summer 2020
- Hannah Aichelman (EBE): Started Fall 2018
   National Science Foundation GRFP awardee \$138,000 Awardee #2016222953
   WDHOF Award 2019 \$2,000, Dana Wright Fellowship
- 3. Daniel Wuitchuk (EBE): Started Fall 2018
- 4. James Fifer (CM): Started Spring 2019

Warren Macleod Award Summer 2019

# **Rotating Ph.D. Students**

- 1. Kathryn Atherton (Bioinformatics): Summer Wet lab Experience 2019
- 2. James Fifer (CM): Rotated Spring 2019, joined lab

# **Masters Students**

- 1. Melissa Zarate (EBE): Started Fall 2018 (co-advisor with Schmitt) Awarded NSF GRFP 2019
- 2. Mary Yohannes (Bioinformatics): Summer 2020 internship

# Honors Committees

Rebecca DeCamp: Anthropology, defends spring 2020

# BU Undergraduates: Marine Science Majors

- Hayden Dickerson: Started Spring 2020 Research for Credit, Awarded NSF-REU SURF (canceled due to COVID-19), Research for credit Summer 2020
- Lauren Knasin: Started June 2018, volunteer summer, fall 2018, Research for credit Spring 2019, Spring 2020 volunteer, planned honors 2021, UROP Summer 2020
- Laura Tsang: Fall 2018, volunteer fall 2018, Research for credit Spring 2019, Research for credit Spring 2020, planned honors 2021, UROP Summer 2020

Gregory Pelose: Started Summer 2019, awarded UROP

- Christopher Reyes: Started January 2018, awarded NSF-REU SURF award Summer 2018, UROP Spring 2019, Laura Vincent Research Award 2019 \$500.
- Katherine Galeas: Started January 2018, volunteer spring 2018 and fall 2018, UROP Spring 2019

David Caron: Spring 2019 Research for credit

Tiffany Wong: Started January 2018, Research for credit Spring 2018 & Summer 2, 2018

Alexander Maytin: Summer 2017-Spring 2018, Kilachand Honors College

# BU Undergraduates: Biology Majors

Katherine Greene: Started fall 2010, UROP Spring 2020 Alexa Huzar: Started fall 2019, work study, UROP Fall 2020

Charlie Courtemanche: Started fall 2019, UROP Spring 2020

Brianna Regan: Started Spring 2019 Research for credit

Alyssa Pereslete: Started Sept 2017, Research for credit Fall 2017, Research for credit Spring 2018, Volunteer Summer 1&2 2018, awarded UROP equipment grant fall 2018, Research for credit Fall 2018, Research for credit Spring 2019, Reading for credit Spring 2019 thing

Andrea Rodas: Started Sept 2017, Research for credit Fall 2017, Spring 2018 UROP, awarded Summer 2018 NSF-REU SURF award, awarded UROP equipment grant fall 2018, Research for credit Fall 2018

Darren Stanizzi: Started Sept 2017, Volunteer Fall 2017, Research for credit Spring 2018, awarded UROP equipment grant, Research for credit Summer 1&2, 2018

Matt Arnold: Started Summer 2018, volunteer summer 1, 2018

Alizah Ali: Started Sept 2017, volunteer fall 2017, Research for credit Spring 2018

#### BU Undergraduates: Biochemistry and Molecular Biology Majors

Olivia Nieves: Started June 2018, Volunteer Summer 2018, Research for credit spring 2019, Research for credit Summer 2019

Brittany Williams: Started Sept 2017, Research for credit Fall 2017, Research for credit Spring 2018, awarded UROP equipment grant

#### Non-BU Undergraduates

Carlos Tramonte: Boston College McNair Scholars Program: Spring 2020-May 2021 Corinna Pilcher: BU Bioinformatics BRITE REU Summer 2019

Lucinda (Lu) Quigley (Environmental Science, Brown University): Awarded the LINK award, summer 2018

Olivia (Livy) Hemond (Molecular Environmental Biology, UC Berkeley): Summer 2018 volunteer

#### High school students

Jack Weldon (Advanced Science Research ASR, Belmont High School): Started Fall 2018

Vy Bui (GROW Program): Summer Research Internship 2019

Joyce Fang (GROW Program): Summer Research Internship 2018

### Student Research Mentor 2009-17, UT Austin and UNC Chapel Hill

Primary mentor or co-mentor of 3 high school, 36 undergraduate and 6 graduate students in molecular genetic techniques, bioinformatics, project design, statistics, scientific presentation, public outreach, and/or manuscript preparation

#### ACADEMIC SERVICE

Biology Anti-racism Committee: Faculty representative 2020-current

ARROWS: Advance, Recruit, Retain, and Organize Women in STEM: Junior Faculty Committee 2018-current Greater Boston Research Opportunities for young Women (GROW) Program Faculty Advisor: 2019-current BU Scientific Diving Safety Committee (SDSC): Voting member 2019-current Biology Weekly Peer Coding Hour Faculty Organizer: Spring 2018-current Communications Committee (commcomm): EBE leader Fall 2017-current Research Computing Governance Meeting: Guest speaker: Use of super computing in teaching, April 5<sup>th</sup>, 2019 EBE Global Change Biology Faculty Search Committee: 2018-2019 Tertulia College of Arts and Sciences (CAS) Junior Faculty Colloquium Leader: Summer 2018-2019 Department of Biology Retreat Organizer: Spring 2018, Spring 2019 Prospective Speech at BU Marine Science Convocation: 2018 Current Ph.D. committee service: Carly Moreno (UNC Marine Sciences) – committee member Karina Scavo (BU Ecology, Behaviour and Evolution) – committee member Leah Williams (BU Cell and Molecular Biology) – second reader Isabella Muratore (BU Ecology, Behaviour and Evolution) – committee member

Robin Francis (BU Ecology, Behaviour and Evolution) – committee member

Tim Bateman (U Delaware, Marine Biosciences) – external committee member

Claudia Mazur (BU Earth and Environment) - committee member, chair

Justin Berg (University of Guam) – external committee member

Elena Forchielli (BU MCBB) – committee member

# Previous Ph.D. committee service:

Elizabeth Burmester (BU Ecology, Behaviour and Evolution: Summer 2017) – committee member Katelyn Mansfield (BU Cell and Molecular Biology 2019) – committee member John Rippe (UNC Marine Sciences 2019) – committee member Linda Nguyen (BU Ecology, Behaviour and Evolution) – second reader, stepped down due to maternity Colleen Bove (UNC Curriculum for Ecology and Environment 2020) – committee member Kathryn Lesneski (BU Ecology, Behaviour and Evolution 2020) – committee member

# Previous Masters committee service:

Anjali Bhardwaj (BU Biology: Summer 2020) - committee member and chair

# **BROADER IMPACTS AND SCIENCE OUTREACH**

NOAA's Exploring by the seat of your pants FGBNMS Panellist (2020) Virtual webinar attended by >350 people STEM Inspiration Organization (S.I.O.) Faculty Interview (2019) Boston, MA Music of Reality: Corals in changing oceans (2018) Boston, MA Summer Pathways Coral Reefs Session (2018) Boston University, Boston, MA SET in the City kick-off speaker (2018) Boston, MA Skype interview with 6<sup>th</sup> grade Spanish Immersion students (2018) Salt Lake City, UT BGSA Biology Mixer Lecture (2018) Boston University, Boston, MA Marine Science Association Seminar (2017) Boston University, Boston, MA Summer Pathways Career Panel (2017) Boston University, Boston, MA GAINS (Girls Advancing IN STEM) (2016) University of North Carolina, Chapel Hill, NC UNC Chapel Hill Science Expo Booth (2015-16) University of North Carolina, Chapel Hill, NC World Wildlife Fund Species Vulnerability and Assessment (2015), WWF Increasing Diversity & Enhancing Academia Mentor (2015), UNC, Chapel Hill, NC Summer Undergraduate Research Fellowship (SURF) Mentor (2015), UNC, Chapel Hill, NC North Carolina Museum of Natural Sciences – Cart Project (2015), Raleigh, NC SciREN: Scientific Research and Education Network Coast 2015 (2015), North Carolina Aquarium REEF: Research-Educator Exchange Forum 2015 (2015), North Carolina State, Raleigh, NC Data Nugget: Do Sea Urchins Help Corals (2014), University of Texas at Austin, Austin, TX Breakthrough Austin Public Lecture Series (2014), Austin TX Scientific Dive Volunteer for NOAA underwater monitoring (2008-13), FGBNMS, Galveston, TX **Onboard Marine Naturalist on M/V Fling** (2008-13), Freeport TX Texas Leadership Society Annual Luncheon: Powers Fellows (2013), University of Texas at Austin Science Club Presentation (2013), Serene Hills Elementary, Austin, TX Home-school Science Education Day (2013), University of Texas at Austin, Austin, TX Public Lecture to FGBNMS Advisory Council (2013), FGBNMS, Galveston, TX Woman in Science Event (2010-12) Lady Bird Johnson Wildflower Center, Austin, TX Science in the Pub: Public lecture series (2011) Austin, TX Nerd Nite Austin: Public lecture series (2011) Austin, TX Science Under the Stars: Outdoor lecture series (2011) Breckenridge Field Laboratory, Austin, TX They blinded me with Science Radio Show Interview (2011) KVRX, Austin, TX **Citizen Schools Volunteer (MVP)** (2010) Bedichek Middle School, Austin, TX Career Day and Educational Outreach (2010) Barrington Elementary, Austin TX