
EDUCATION:

Ph.D.	Huck Institutes of the Life Sciences, Penn State University <i>Advisor:</i> Dr. Todd C. LaJeunesse	Current
B.Sc.	Department of Biology, University of Texas at Arlington <i>Major:</i> Biology and Microbiology <i>GPA:</i> 3.81	2019

RESEARCH APPOINTMENTS:

LaJeunesse Lab Penn State University <i>Advisor:</i> Todd LaJeunesse	<ul style="list-style-type: none">• Manipulate transcriptomic datasets and conduct differential expression analyses in Python and R• Characterize the ecological attributes of host-generalist and host-specialist coral endosymbionts through molecular methods• Manage over 200 live algal cultures, conducting health examinations and transfers every three months• Help mentor the growth of six undergraduate students as they enter the academic world and assist with graduate school applications.	Current
Mydlarz Lab University of Texas at Arlington <i>Advisor:</i> Laura Mydlarz	<ul style="list-style-type: none">• Extracted RNA and Proteins to be prepared for further downstream analyses, such as WGCNA and physiological assays respectively• Set up experiments in the field, preparing multi-treatment experiments at St. Thomas, USVI in collaboration with the Brandt Lab• Helped mentor new undergraduate researchers in different molecular techniques and lab maintenance	2016-2019

PUBLICATIONS:

H Denis, O Selmoni, H Gossuin, T Jauffrais, **CC Butler**, G Lecellier, V Berteaux-Lecellier. In Review. Climate adaptive loci revealed by seascape genomics corroborate phenotypic variation in heat tolerance of the coral *Acropora millepora*. *Sci Reports*.

CC Butler, KE Turnham, AM Lewis, MR Nitschke, ME Warner, D Kemp, O Hoegh-Guldberg, WK Fitt, MJH van Oppen, TC LaJeunesse. 2023. Formal Recognition of Host-Generalist Species of Dinoflagellates (*Cladocopium*, Symbiodiniaceae) Mutualistic with Indo-Pacific Reef Corals. *J of Phycology*.

TC LaJeunesse, P Casado-Amezúa, BCC Hume, **CC Butler**, S Mordret, R Piredda, P De Luca, R Pannone, D Sarno, J Wiedenmann, I D'Ambra. 2022. Mutualistic dinoflagellates with big disparities in ribosomal DNA variation may confound estimates of symbiont diversity and ecology in the jellyfish *Cotylorhiza tuberculata*. *Symbiosis*.

NJ Macknight, K Cobleigh, D Lasseigne, A Chaves-Fonnegra, A Gutting, B Dimos, J Antoine, L Fuess, C Ricci, **CC Butler**, EM Muller, LD Mydlarz, M Brandt. 2021. Microbial dysbiosis reflects disease resistance in diverse coral species. *Communications Biology*. 4:679.

LF Fuess, AC Palacio, **CC Butler**, AC Baker, LD Mydlarz. 2021. Increased algal symbiont density reduces host immunity in a threatened Caribbean coral species, *Orbicella faveolata*. *Frontiers in Ecology and Evolution*.

LF Fuess, **CC Butler**, ME Brandt, LD Mydlarz. 2020. Investigating the roles of transforming growth factor-beta in immune response of *Orbicella faveolata*, a scleractinian coral. *Developmental & Comparative Immunology*. 107. DOI: 10.1016/j.dci.2020.103639.

BA Dimos, **CC Butler**, CA Ricci. NJ MacKnight. LD Mydlarz. 2019. Responding to threats both foreign and domestic: NOD-like receptors in corals. *Integrative and Comparative Biology*. 59(4):819-829

HONORS AND AWARDS:

J. Ben and Helen D. Hill Memorial Award (\$1270)	2023
Maskalick Biodiversity Seed Grant (\$2,500)	2022
NSF Graduate Research Fellowship(\$102,000)	2021-2024
Braddock Scholarship (\$5,000)	2019
UTA Biology Undergraduate Research Award (\$250)	2018
UTA Outstanding Freshman Award (\$8,000)	2015-2019

SCIENCE OUTREACH AND COMMUNICATIONS:

Discovery Space State College, PA	<ul style="list-style-type: none">Met with different classes of students from different age ranges (5-16 years old) and developed specific presentations for different age groups on the importance of reef-building corals to regional environments and biodiversity as a whole.Introduced younger individuals to how light can affect these small but important organisms and how important light is in stratifying the ecosystems of Earth.	2021-2022
State College Library State College, PA	<ul style="list-style-type: none">Discussed and showcased the importance of Cnidarians to children ranging from 5-15 years old.Introduced these children to physical collections and showcased the anatomy and diversity of Cnidarians to the public.	2022
Exploration-U Bellefonte, PA	<ul style="list-style-type: none">Challenged middle school students to compare and contrast the different forms of symbioses through the use of a computer gameEvaluated students' understanding of symbiosis by a matching card game where the students used problem-solving skills to pair up different symbiotic partners and classify their symbiotic relationship	2019
EarthX Dallas, TX	<ul style="list-style-type: none">Discussed and presented the importance of the ecosystem services that Coral Reefs provide to more than a thousand EarthX attendees across a three-day period every year for three years	2017-2019

Ecofest
Arlington, TX

- Reached out to a smaller community to inform potential voters about how they can help critical, but distant, ecosystems at home. **2018-2019**
- Introduced younger students to coral reefs by engaging with them in an activity where they must build a reef out of pieces of coral to help hide smaller fish from larger predators.