

# Brooke Z. Torjman

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## EDUCATION:

**Doctor of Philosophy, Texas A&M University, College Station, TX** 08/2021 – Present  
Ecology and Evolutionary Biology Program

Dissertation: *Facilitative interactions between flora and infauna in coastal wetlands in Galveston Bay*

**Bachelor of Science, Muhlenberg College, Allentown, PA:** 05/2019  
Major: Biology, Major GPA: 3.515, Cumulative GPA: 3.620

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## RESEARCH EXPERIENCE:

**Hermit Crab Ecology Research, Muhlenberg College, Allentown, PA.** 01/2019 – 05/2019

- Preparation of three manuscripts for publication (Principle Investigator: Erika V. Iyengar, Ph.D.)
- Project Title: A study of hermit crab shell selection

**Isopod Ecology Research, Muhlenberg Allentown, PA.** 08/2018 – 12/2018

- Study of local stream isopod habitat preferences (Principle Investigator: Erika V. Iyengar, Ph.D.)
- Project Title: The habitat preference of stream isopod, *Lirceus fontinalis*

**Summer Student Fellowship at Woods Hole Oceanographic Institution** 06/2018 – 08/2018

- Selected applicant for student fellowship to investigate how differential feeding rates affect larval swimming behavior in the slipper snail *Crepidula fornicata* (Principle Investigator: Lauren S. Mullineaux, Ph.D.)
- Project Title: The effect of differential feeding rates on larval swimming behavior of the slipper snail *Crepidula fornicata*

**School for Field Studies Semester Abroad, Bocas del Toro, Panama** 01/29/18 – 05/09/2018

- Completed an independent directed research project comparing the species diversity and abundance of mangrove prop roots and wooden dock pilings (Principal Investigator: Carolyn Kovacs, MS)
- Project Title: Comparisons of epibiota across mangrove prop roots and wooden dock pilings

**Gastropod Morphometrics, continued research - Friday Harbor Laboratory's Blinks-BEACON Research Experience** 08/28/2017 – 12/15/2017

- Study of gastropod shell growth at five different sites in relation to hermit crab shell selection behavior (Principal Investigator: Erika V. Iyengar, Ph.D.)
- Project Title: Gastropod Morphometrics Across Five Intertidal Sites in Washington state in Relation to Hermit Crab Shell Selection Behavior

**Friday Harbor Laboratory's Blinks-BEACON Research Experience for Undergraduates Fellowship** 06/12/2017 – 08/4/2017

- Selected undergraduate fellow to study intertidal marine hermit crab shell selection behavior (Principal Investigator: Erika V. Iyengar, Ph.D.)
- Project Title: The Ecological Ramifications of Snail Shell Use of the Hermit Crabs *Pagurus beringanus* and *Pagurus granosimanus*

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## PUBLICATIONS:

**Torjman, BZ** and Iyengar EV (2024) Hefting heavy shells: sustenance demands caused by various abodes of the hermit crab *Pagurus granosimanus*. *Hydrobiology*. **3**, 74-84. <https://doi.org/10.3390/hydrobiology3020006>

**Torjman, BZ** and Iyengar EV (2022) Increased potential for shell competition among intertidal hermit crabs (*Pagurus beringanus* and *Pagurus granosimanus*) in the rocky intertidal. *Journal of the Marine Biological Association of the United Kingdom*. <https://doi.org/10.1017/S0025315421000837>

DiBenedetto M, Meyer-Kaiser KS, **Torjman BZ**, Wheeler JD and Mullineaux LS (2021) Departures from isotropy: the kinematics of a larval snail in response to food cues. *Journal of Experimental Biology* **224**, 1-9.  
[doi:10.1242/jeb.239178](https://doi.org/10.1242/jeb.239178)

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## PRESENTATIONS:

- B. Torjman**, A. Armitage, 2024. Salt marsh infauna abundance is seasonally driven, but functionally similar across seasons, Texas A&M University at Galveston Student Research Symposium, Galveston, TX, April 17.
- B. Torjman**, A. Armitage, 2023. Infaunal heterogeneity in Galveston Bay provides a baseline for future work, Coastal & Estuarine Research Federation, *National Conference*, Portland, OR, November 15.
- B. Torjman**, A. Armitage, L. Jurgens, 2023. Erosion control structures enhance epifauna but decrease flora and microphytobenthic productivity in restored salt marshes in Galveston Bay, Ecological Integration Symposium, *Regional Conference*, Texas A&M University, College Station, TX, March 31.
- B. Torjman**, A. Armitage, L. Jurgens, 2022. Erosion control structures enhance epifauna but decrease flora and microphytobenthic productivity in restored salt marshes in Galveston Bay, Gulf Estuarine Research Symposium, *Regional Conference*, University of Southern Mississippi, Ocean Springs, MS, October 29.
- B. Torjman**, E. Iyengar, 2019, The burden of a hermit crab: a bevy of heavy shells, Lehigh Valley Ecology and Evolution Symposium, *Regional Conference*, Lafayette College, Easton, PA, April 13.
- B. Torjman**, L. Mullineaux, K. Meyer-Kaiser, J. Wheeler, J. Pechenik, 2019, Food affects swimming behavior of larval *Crepidula fornicata*, Biology research department presentation, Muhlenberg College, Allentown, PA, February 22.
- B. Torjman**, L. Mullineaux, K. Meyer-Kaiser, J. Wheeler, J. Pechenik, 2019, Food affects swimming behavior of larval *Crepidula fornicata*, The Society for Integrative and Comparative Biology, Tampa, FL, January 5. *National Conference*.
- B. Torjman**, L. Mullineaux, K. Meyer-Kaiser, J. Wheeler, J. Pechenik, 2018, Food affects swimming behavior of larval *Crepidula fornicata*, Muhlenberg College Research Symposium, Muhlenberg College, Allentown, PA, September 22.
- B. Torjman**, L. Mullineaux, K. Meyer-Kaiser, J. Wheeler, J. Pechenik, 2018, Food affects swimming behavior of larval *Crepidula fornicata*, Biology Summer Undergraduate Research Forum, Woods Hole Oceanographic Institution, Woods Hole, MA, August 9.
- C. Kovacs, **B. Torjman**, M. Correiro, A. Eckert, L. Hamar, R. Hill, S. Martinez, E. Scott, K. Sisson, 2018, Epifaunal and fish assemblages associated with dock pilings in the Bocas del Toro archipelago, Community presentation for science communication, Bocas del Toro, Panama, May 6.
- B. Torjman**, E. Iyengar, 2018, Ecological ramifications of shell use by hermit crabs, The Society for Integrative and Comparative Biology, San Francisco, CA, January 5. *National Conference*.
- B. Torjman**, E. Iyengar, 2017, Ecological ramifications of shell use by hermit crabs, Biology research department presentation, Muhlenberg College, Allentown, PA, September.
- B. Torjman**, E. Iyengar, 2017, Ecological ramifications of shell use by hermit crabs, Muhlenberg College Research Symposium, Muhlenberg College, Allentown, PA, September 16.
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## FELLOWSHIPS/SCHOLARSHIPS/GRANTS:

Galveston Graduate Student Association Mini-Grant	2024
Federation of Houston Professional Women Educational Foundation Scholarship	2023
Ecology and Evolutionary Biology Research Grant	2022
Texas A&M University/Association of Former Students Graduate Merit Fellowship	2021
NSF Research Experience for Undergraduates Fellowship – OCE-0850419	2018
NSF Research Experience for Undergraduates Fellowship – DBI-1262239	2017
The Crist Family Student Research Award in Biology Fund	2017

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## TEACHING EXPERIENCE:

Marine Botany Teaching Assistant, Texas A&M University at Galveston, Galveston	2024
Coastal Wetland Ecology Teaching Assistant, Texas A&M University at Galveston, Galveston	2023
Introductory Biology II Teaching Assistant, Texas A&M University, College Station	2022
Introductory Biology I Teaching Assistant, Texas A&M University, College Station	2021

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## HONORS/AWARDS:

Professional Development Certificate – G.R.A.D. Aggies Professional Development Certificate Program	2024
Professional Development Certificate – G.R.A.D. Aggies Professional Development Certificate Program	2021

<b>Dean's List</b>	2019
<b>Second Place</b> – Oral Presentation, Lehigh Valley Ecology and Evolution Symposium	2019
<b>Fulbright Scholar Semi-Finalist</b>	2019
<b>Dean's List</b>	2018
<b>Dean's List</b>	2017
<b>Dean's List</b>	2016
<b>Dean's List</b>	2015

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**EXTRACURRICULAR ACTIVITIES:**

<b>Coastal and Estuarine Research Federation Member</b>	2023 – Present
<b>Phi Kappa Phi Member</b>	2023 - Present
<b>Gulf Estuarine Research Society Member</b>	2022 – Present
<b>Gulf Center for Sea Turtle Research Volunteer</b>	2022 – Present
<b>Reptile/Invertebrate Caretaker</b> , Churchville Nature Center, Churchville, PA	09/2020 – 12/2020
<b>Top Naach, Bollywood Dance Club</b> , Muhlenberg College, Allentown, PA	08/2017 – 05/2019
<b>Students for Queen Advocacy</b> , Muhlenberg College, Allentown, PA	08/2018 – 05/2019
<b>2019 Class Council President</b> , Muhlenberg College, Allentown, PA	05/2016 – 05/2019
<b>Cardinal Key Society (Alumni Relations)</b> , Muhlenberg College, Allentown, PA	01/2016 – 05/2019
<b>Biology Club</b> , Muhlenberg College, Allentown, PA	08/2015 – 05/2019

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**WORK EXPERIENCE:**

<b>Teaching Assistant</b> , Texas A&M University at Galveston, Galveston, TX	08/2023 – Present
<b>Research Assistant</b> , Texas A&M University at Galveston, Galveston, TX	05/2022 – 08/2022
<b>Teaching Assistant</b> , Texas A&M University, College Station, TX	08/2021 – 05/2022
<b>Lead Scientist</b> , New Logic Marine Science Camp, Margate, NJ	06/2020 – 08/2021
<b>Senior Outdoor Education Instructor</b> , Pali Institute, Running Springs, CA	08/2019 – 3/2020
<b>Host/Server</b> , Robin Hood Restaurant, Southampton, PA	06/2019 – 08/2019
<b>Peer Tutor</b> , Muhlenberg College, Allentown, PA	01/2016 – 05/2019

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**SERVICE:**

<b>Graduate Ambassador</b>	2023 – Present
<b>Texas A&amp;M University at Galveston OCEANUS REU Program Mentor</b>	2023
<b>Darwin Day Planning Committee</b>	2022 – Present

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**SKILLS:**

**Field Techniques:** Seining, cast netting, plankton tow, transect and quadrat surveys (terrestrial, intertidal, and subtidal), mark/recapture surveys, soil coring, spectrofluorometer use, advanced snorkeler, rocky intertidal species identification (invertebrate and algae), coastal salt marsh species identification (invertebrate, plant, and algae)

**Lab techniques:** SEM, micro-CT, 3D Slicermorph, microtome, staining and mounting slides, organism fixing, preserving, and staining procedures, 3D printing, PCR, centrifuging, micropipetting, compound and dissecting microscopy, gel electrophoresis, caliper measurements, ImageJ, Microsoft Excel/Word/PowerPoint, SPSS, RStudio open source, JMP Pro 16, larval culturing, hemocytometer counts, sediment grain size analysis, soil organic content analysis, infauna preservation and staining, belowground and aboveground plant biomass processing, elemental analyzer

**Miscellaneous:** NAUI Advanced open water SCUBA certified (July 2023), TDI Nitrox certified (December 2022), SDI Open water SCUBA certified (December 2022), CPR/AED certified (June 2021), First aid certified (June 2021)

**Trainings:** PINS Sea Turtle Nesting Training (March 2024), GCSTR Sea Turtle Nesting Training (February 2024), GCSTR sea turtle stranding training (November 2022, 2023), GCSTR sea turtle cold stun training (December 2022, November 2023), GCSTR training in sea turtle handling and husbandry (August 2022)

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