

## Catheline Y.M. Froehlich

Catheline.Froehlich@gmail.com

(AUD) +61-498-251-010

Citizenship: French & USA

### EDUCATION

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*PhD Postgraduate Fellow: University of Wollongong, Australia* 2018-present

*Zoltan Florian Marine Biology Fellow: Lizard Island Doctoral Fellowship Program* 2019-present

School of Earth, Atmospheric, and Life Sciences

Thesis: Causes and Consequences of Sociality in Coral-Dwelling Gobies (genus *Gobiodon*)

*M.S. University of Texas at Brownsville (now University of Texas Rio Grande Valley), USA* 2012-2014

Department of Biological Sciences

Biology program, GPA: 4.0

Major Advisor: Richard J. Kline

Thesis: A Comparison of Fish Communities Over Different Reef Configurations in the Northwestern Gulf of Mexico

*B.S. University of Massachusetts at Amherst, USA* 2008-2012

College of Natural Sciences

Pre-veterinary degree, French minor, GPA: 3.7

*Study Abroad at University of Queensland, Australia* Feb-Jun 2011

Coursework: Australia's Marine Environment, Intro to Sport Psychology, Intro to Management, Physics II

### RELATED EXPERIENCE

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*Councilor: Australian Coral Reef Society (ACRS)* 2019-present

Tasks: produce magazine, prepare written submission to political and public platforms regarding important scientific and political issues regarding reefs, organize conferences

*Conference Organizer: Kioloa SEALS Postgraduate Conference* 2019

Tasks: conference host, organize scientific program, assist with fundraising and sponsorships, communicate with attendees

*Demonstrator: University of Wollongong* 2019

School of Earth, Atmospheric, and Life Sciences

Classes: Biodiversity of Marine and Freshwater Organisms

*Postgraduate Research Assistant: University of Wollongong* 2018-2019

School of Earth, Atmospheric, and Life Sciences

Tasks: collect water samples and run eDNA filtering for crayfish species composition

*Aquarist: IGH Aquatics* 2018

Bass Pro Shops, Harlingen, TX, USA

Tasks: monitored the health of saltwater and freshwater fishes; completed water quality measurements; administered medication and other treatments related to diseases; managed fish feedings and overall inventory; identified key improvements to the aquarium setups

- Research Associate II: University of Texas Rio Grande Valley* 2016-2018  
 School of Earth, Environmental, and Marine Sciences, Brownsville, TX, USA  
 Tasks: Coordinated artificial reef research funded by grants; monitored undergraduate and graduate students; analyzed and published data; ran statistical workshops for students; managed grant accounts; prepared technical and funding reports; assisted in field work for graduate theses; managed dive equipment; improved safety protocols for dive program; maintained boats and vehicles  
 Field and lab research: Visual fish and invertebrate surveys and specimen collections; deployment of juvenile fish sampling devices; deployment of juvenile fish nurseries; controlled and troubleshooted remotely operated vehicles and side scan sonar units for surveys; acoustic analysis; long line fishing surveys; underwater surgery for tag implantation; acoustic telemetry; benthic trawling; oyster dredging; ponar grab surveys; fish trap deployments; sediment core collections; plankton towing; water parameter monitoring; organism dissection; otolith processing and reading; gonad tissue processing and histology; coral DNA sequencing; wave glider mission planning; installing/processing ocelot camera traps
- Bat Telemetry and Trapping Assistant, Angelo State University* 2015  
 TX, USA  
 Field research: Captured bats with mist nets and harp nets; identified bat species; assisted with tag implementation; radio telemetry; habitat characterization
- Lecturer: University of Texas at Brownsville* 2015  
 Department of Biological Sciences, Brownsville, TX, USA  
 Classes taught: General Biology II Lectures  
 Other tasks: Mentored Greater Texas Foundation scholars
- Graduate Research Assistant & Fellow: University of Texas at Brownsville* 2013-2014  
 Department of Biological Sciences, Brownsville, TX, USA (2012-2014)  
 Department of Graduate Studies, Brownsville, TX, USA (2013-2014)  
 Field research: Planned and implemented master's thesis research project; located and surveyed artificial reef sites for fish; constructed three-laser fish length apparatus and measured lengths of *in situ* red snapper; trained/led volunteer and employee field crews; supervised undergraduate research; marine fish and invertebrate surveys; deployment and retrieval of juvenile fish sampling devices; remotely operated vehicle assistance; long line fishing collections and dissections; side scan sonar surveys and acoustic analysis; underwater surgery assistance for tag implantation; acoustic telemetry  
 Other tasks: Maintained research equipment and boats; maintained aquarium; produced site images with Humviewer, ImageJ, SonarTRX and GIS; analyzed data with SPSS and PRIMER-E software; wrote technical and funding reports; assisted in grant writing; monitored budgets; purchased supplies; presented findings at state, national and international meetings and conferences
- Graduate Teaching Assistant: University of Texas at Brownsville* 2012-2014  
 Department of Biological Sciences, Brownsville, TX, USA  
 Classes taught: General Biology I Laboratory, General Biology II Laboratory  
 Other tasks: Supervised Undergraduate Teaching Assistants; monitored live animal collections; dissected organisms; conducted teaching experiments; revamped curriculums
- Support Scientific SCUBA Diver: University of Texas at Brownsville* 2012

Department of Biological Sciences, Brownsville, TX, USA

Tasks: Underwater surgery assistance for acoustic tag implementation; maintained SCUBA equipment; fish and marine invertebrate identification

*SCUBA Teaching Assistant: University of Massachusetts at Amherst* 2012  
College of Natural Sciences, Amherst, MA, USA  
Classes assisted: Open Water SCUBA Diving  
Other tasks: Maintained SCUBA equipment; assisted in check out dives

### **RESEARCH VESSEL CRUISES**

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- July 10-13, 2017: aboard M/V Miss Vivian to complete surveys and collect coral with ROV and side scan sonar and collect plankton at natural reef banks in western Gulf of Mexico
- June 5-8, 2017: aboard M/V Miss Vivian to complete surveys and collect coral with ROV and side scan sonar and collect plankton at natural reef banks in western Gulf of Mexico
- September 9-15, 2014: aboard R/V Fling to complete fish and invertebrate surveys with ROV at natural reef banks in western Gulf of Mexico
- September 15-21, 2013: aboard R/V Fling to complete fish surveys with ROV at artificial reefs and natural reef banks in western Gulf of Mexico

### **TEACHING**

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*Demonstrator for Biol 240: Biodiversity of Marine and Freshwater Organisms* 2019  
University of Wollongong

*General Biology II Lecture* 2015  
University of Texas at Brownsville

*General Biology II Laboratory* 2013-2014  
University of Texas at Brownsville

*General Biology I Laboratory* 2012  
University of Texas at Brownsville

### **OUTREACH/SCIENCE COMMUNICATION**

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- 2017-present: reviewed manuscript for peer-reviewed journals, and reviewed grants
- 2019-present: co-director/producer/editor/ host of The Graduates Sci-Com podcast: platform for graduate scientists to share their research in the most hilarious way possible
- 2017-2018: Community Liaison for Third Coast Science For You, a community-based journal that brings new scientific discoveries to the general public
- 2016-present: Skype-A-Scientist Outreach Educator: virtually teach young minds worldwide about ecology and science and share the excitement of being a scientist
- 2016-2018: Co-director and co-founder of the Brownsville International Film Festival to bring the first recurring international film festival to Brownsville, Texas, USA
- 2016-2017: Advisor for the Graduate Student Alliance at the University of Texas Rio Grande Valley
- 2015-2018: Co-founder of the Brownsville branch of Nerd Nite events, which happen worldwide to bring informative and fun presentations in all disciplines to the public
- 2015-2017: Advisor for the Ultimate Frisbee Club at the University of Texas Rio Grande Valley
- 2013-2018: Volunteer at Sea Turtle Inc. in South Texas to monitor the care of sea turtles, patrol beaches for nesting females, monitor and release new hatchlings, clean beaches, and educate the public on sea turtle conservation

- 2013-2014: Co-founder of the Ultimate Frisbee Club at the University of Texas at Brownsville to bring the first sports club to the university
- 2012-2018: Educate students and the public in South Texas on a variety of scientific and conservation topics for events such as: Oceanarium at Gladys Porter Zoo, Texas Sea Grant Floating Classroom Program, Rio Grande Science and Arts Festival, Alternative Spring Break for the Center for Civic Engagement, Fishing's Future, Judging at the Rio Grande Valley Regional Science and Engineering Fair

## **PUBLICATIONS**

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9. **Froehlich, C.Y.M.**, Heatwole, S.J., Klanten, O.S., and Wong, M.Y.L. *In prep.* To swim or not to swim: To swim or not to swim: decisions of translocated coral gobies in relation to habitat health, size, saturation, and familiarity.
8. Rueger T., Branconi, R., **Froehlich, C.Y.M.**, Heatwole, S.J., Wong, M.Y.L., and Buston, P.M. *In review.* The next frontier in understanding sociality in marine fishes.
7. **Froehlich, C.Y.M.**, Klanten, O.S., Hing, M.L., Dowton, M., and Wong, M.Y.L. *In review.* Uneven declines between corals and cryptobenthic fish symbionts from multiple disturbances.
6. **Froehlich, C.Y.M.**, Garcia, A., Cintra-Buenrostro, C.E., Hicks, D.W., and Kline, R.J. *In review.* Structural differences alter residency and depth patterns of red snapper (*Lutjanus campechanus*) at two artificial reefs.
5. **Froehlich, C.Y.M.**, Lee, A., Oquita, R., Cintra-Buenrostro, C.E., and Shively, J.D. *In review.* Reproductive characteristics of Red Snapper *Lutjanus campechanus* on artificial reefs in different jurisdictions. *Submitted to the journal of Ocean and Coastal Management.*
4. **Froehlich, C.Y.M.**, Garcia, A., and Kline, R.J. 2019. Daily movement patterns of red snapper (*Lutjanus campechanus*) on a large artificial reef. *Fisheries Research (impact factor 1.874, quartile 1 for aquatic science)* 209:49-57. doi: 10.1016/j.fishres.2018.09.006.
3. **Froehlich, C.Y.M.**, Lee, A., Oquita, R., Cintra-Buenrostro, C.E., Shively, J.D., and Shipley, J.B. 2018. Inshore and offshore comparison of population dynamics of the heavily-fished *Lutjanus campechanus*, Poey, 1860, in the northwestern Gulf of Mexico. *In: Bortone SA, editor. Marine artificial reef research and development: integrating fisheries management objectives. USA: Transactions of the American Fisheries Society (impact factor: 1.406, quartile 1 for aquatic science), 68.*
2. Arney, R.N., **Froehlich, C.Y.M.**, and Kline, R.J. 2017. Recruitment patterns of juvenile fish at an artificial reef in the Gulf of Mexico. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science (impact factor 1.177, quartile 1 for aquatic science).* 9:79-92. doi: 10.1080/19425120.2016.1265031.
1. **Froehlich, C.Y.M.**, and Kline, R.J. 2015. Using fish population metrics to compare the effects of artificial reef density. *PLoS One (impact factor 2.806, quartile 1 for aquatic science).* 10(9):e0139444. doi: 10.1371/journal.pone.0139444.

## **TECHNICAL PUBLICATIONS**

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7. **Froehlich, C.**, Goyen, S., Hoey, A. August 2020. The ACRS comments on revisions of AS/NZS scientific diving standards. *Australian Coral Reef Society submission to the Standards Australia Diving Committee.*
6. Wolfe, K., & **Froehlich, C.** August 2020. The ACRS calls for a reassessment of the East Coast Sea Cucumber fishery. *Australian Coral Reef Society submission to Department of Agriculture, Water and the Environment regarding Sea Cucumber Fishery (East Coast) – Status report for reassessment.*
5. Suggett, D., **Froehlich, C.**, Scott, A., Sims, C., Ricardo, G., Torda, G., Cumming, G., & Lewis, B. July 2020. The ACRS comments on the Draft Policy on Great Barrier Reef Interventions. *Australian Coral Reef Society submission to the Great Barrier Reef Marine Park Authority.*

4. Steinberg, R., **Froehlich, C.**, & Turnbull, J. April 2020. Listing the Cauliflower Soft Coral (*Dendronephthya australis*) as an Endangered Species. *Australian Coral Reef Society submission to the NSW Fisheries Scientific Committee.*
3. Hamylton, S., & **Froehlich, C.** December 2019. Great Barrier Reef outlook report highlights the urgent need to curb carbon emissions and improve water quality. *Australian Coral Reef Society Reef Matters: ACRS commentary on the 2019 Great Barrier Reef Outlook Report.*
2. **Froehlich, C.** & Brodie, J. November 2019. The Great Barrier Reef needs evidence-based regulation of farm practices that impact water quality. *Australian Coral Reef Society submission to the Senate Rural and Regional Affairs and transport References Committee.*
1. Fordyce, G., Goyen, S., & **Froehlich, C.** September 2019. Submission to the Australian Maritime Safety Authority on the proposed new Marine Order 505. *Australian Coral Reef Society submission to the Australian Maritime Safety Authority.*

#### **MEETING PRESENTATIONS (\*presenter)**

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19. **Froehlich, C.Y.M.\***, Heatwole, S.J., Klanten, O.S., & Wong, M.Y.L. (December 2020). Who will recover: extreme climatic events affect habitat use and persistence of coral-dwelling fishes. Oral Presentation. *The 60th National Conference of the Ecological Society of Australia.* Virtual Conference.
18. Heatwole, S.J., \* **Froehlich, C.Y.M.**, Rueger, T., Klanten, O.S., & Wong, M.Y.L. (December 2020). Large spatial scale comparisons of social behaviour across ecological contexts for predicting resilience. Oral Presentation. *The 60th National Conference of the Ecological Society of Australia.* Virtual Conference.
17. **Froehlich, C.Y.M.\***, Heatwole, S.J., Klanten, O.S., & Wong, M.Y.L. (November 2020). Getting along: investigating spatial gradients of social hierarchies in groups of coral-dwelling gobies. Oral Presentation. *Annual HDR Conference, TEFKAK Conference, School of Earth, Atmospheric, and Life Sciences, University of Wollongong, NSW, Australia.*
16. Heatwole, S.J. \*, **Froehlich, C.Y.M.**, Klanten, O.S., Rueger, T., & Wong, M.Y.L. (November 2020). Comparisons of anemonefish social behaviour across ecological contexts. Oral Presentation. *Annual HDR Conference, TEFKAK Conference, School of Earth, Atmospheric, and Life Sciences, University of Wollongong, NSW, Australia.*
15. Heatwole, S.J.\*, Wong, M.Y.L., Rueger, T., **Froehlich, C.Y.M.**, & Klanten, O.S. (July 2020). Conflict vs cooperation: multi-species comparisons and how ecological factors shape social variation. Oral Presentation. *The 57th Annual Conference of the Animal Behavior Society, virtual conference.*
14. **Froehlich, C.Y.M.\***, Heatwole, S.J., Klanten, O.S., & Wong, M.Y.L. (July 2020). To swim or not to swim: decisions of translocated coral gobies in relation to habitat quality and social life. Oral Presentation. *The 57th Annual Conference of the Animal Behavior Society, virtual conference.*
13. **Froehlich, C.Y.M.\***, Hing, M.L., Klanten, O.S., Downton, M. & Wong, M.Y.L. (October 2019). Coral bleaching affects assemblages and host coral occupancy of gobies more than cyclones. Oral Presentation. *Annual HDR Conference, Kioloa Postgraduate Conference, School of Earth, Atmospheric, and Life Sciences, University of Wollongong, NSW, Australia.*
12. **Froehlich, C.Y.M.\***, Hing, M.L., Klanten, O.S., & Wong, M.Y.L. (May 2019). Consequential detriment to mutual coral and coral gobies following cyclones and bleaching events. Oral Presentation. *Australian Coral Reef Society. Moreton Island, QLD, Australia.*
11. **Froehlich, C.Y.M.\*** (November 2018). What is the hype of group living? Investigating sociality in coral-dwelling gobies genus *Gobiodon*. Oral Presentation. *Kioloa Conference and the Center of Sustainable Environmental Solutions, University of Wollongong, NSW, Australia.*
10. Oquita, R.\*, **Froehlich, C.Y.M.**, Lee, A., Shively, J.D., Shipley, J.B., & Cintra-Buenrostro, C.A. (April 2018). Age and growth of Red Snapper (*Lutjanus campechanus*) in four artificial reefs in South Texas. Poster presentation. *University of Texas Rio Grande Valley Engaged Scholar Symposium. Brownsville, MA, USA.*

9. Kline, R.J.\*, **Froehlich, C.Y.M.**, & Garcia, A. (January 2018). Home range of Red Snapper *Lutjanus campechanus* over a large artificial reef. Oral presentation. *42nd Annual Meeting of the Texas Chapter of the American Fisheries Society*. College Station, TX, USA.
8. **Froehlich, C.Y.M.\***, Lee, A., Oquita, R., Cintra-Buenrostro, C.A., Shively, J.D., & Shipley, J.B. (August 2017). Inshore and offshore artificial reef comparison of population dynamics of the heavily-fished *Lutjanus campechanus*, Poey, 1860, in the northwestern Gulf of Mexico. Oral presentation. *147th Annual Meeting of the American Fisheries Society*. Tampa, FL, USA.
7. **Froehlich, C.Y.M.\***, & Kline, R.J. (February 2015). Using fish population metrics to predict the ideal density of future concrete reefs. Oral presentation. *2<sup>nd</sup> Annual Texas Artificial Reef Consortium*. Texas Parks and Wildlife Department, Corpus Christi, TX, USA.
6. **Froehlich, C.Y.M.\***, & Kline, R.J. (April 2014). Current composition of sportfish populations at an artificial reef off the coast of Texas. Oral presentation. *Texas Bays and Estuaries*. Port Aransas, TX.
5. **Froehlich, C.Y.M.\*** (April 2014). Artificial reef density effects on fish communities and red snapper sizes in the Western Gulf of Mexico. Oral presentation. 3<sup>rd</sup> place award. *16<sup>th</sup> Annual University of Texas at Brownsville Research Symposium*. Brownsville, TX, USA.
4. **Froehlich, C.Y.M.\***, & Kline, R.J. (March 2014). Culvert reef structure densities may affect fish community diversity in Western Gulf of Mexico. Oral presentation. *117<sup>th</sup> Annual Meeting of the Texas Academy of Science*. Galveston, TX, USA.
3. Kline, R.J.\*, **Froehlich, C.Y.M.**, Arney, R.N., & Bollinger, M.A. (January 2014). Characterization of reef fish use by patch configuration on a shallow, turbid culvert reef system. Oral presentation. *1<sup>st</sup> Annual Texas Artificial Reef Consortium*. Texas Parks and Wildlife Department, Corpus Christi, TX, USA.
2. **Froehlich, C.Y.M.\***, & Kline, R.J. (November 2013). Fish diversity differs among varying densities of culvert reefs in the Gulf of Mexico. Poster presentation. *Gulf and Caribbean Fisheries Institute*. Corpus Christi, TX, USA.
1. **Froehlich, C.Y.M.\***, & Kline, R.J. (October 2013). Culvert reef density affects fish communities at an artificial reef in the Gulf of Mexico. Poster presentation. *American Shore and Beach Preservation Association*. South Padre Island, TX, USA.

#### **INVITED PRESENTATIONS**

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12. "Time to get social: what factors of ecology promote group living?" **Froehlich, C.Y.M.** (February 2021). *Lizard Island Research Station Seminar Series*. Lizard Island, QLD, Australia.
11. "Advantages of sociality in coral-dwelling fishes." **Froehlich, C.Y.M.** (February 2020). *Lizard Island Research Station Seminar Series*. Lizard Island, QLD, Australia.
10. "What is the hype of group living? A goby snapshot from the Indo-Pacific." **Froehlich, C.Y.M.** (September 2018). *Walindi Invited Seminars*. Kimbe Bay, PNG.
9. "EcoStats 101: introduction to statistical software for ecological data using IBM SPSS and PRIMER-E packages." **Froehlich, C.Y.M.** (January 2018). *South Texas Ecology, University of Texas Rio Grande Valley*. Port Isabel, TX, USA.
8. "GAPS panel discussion." Closing the G.A.P.S. (Girls Aren't Pursuing Science): A Summer Institute to Foster Women Scientists and Engineers. (June 2017). *Texas Southmost College GAPS Meeting*. Brownsville, TX, USA.
7. "Diving under the horizon will uplift your spirits as you discover a world full of life: a look into South Texas artificial reefs." **Froehlich, C.Y.M.** (November 2016). *South Texas Border Chapter Texas Master Naturalist Invited Seminars*. Mission, TX, USA.
6. "GAPS panel discussion." Closing the G.A.P.S. (Girls Aren't Pursuing Science): A Summer Institute to Foster Women Scientists and Engineers. (June 2016). *Texas Southmost College GAPS Meeting*. Brownsville, TX, USA.
5. "PRIMER-E for beginners: learning how ecological data can be analyzed using nonparametric community-based tests." **Froehlich, C.Y.M.** (January 2015). *South Texas Ecology, University of Texas at Brownsville*. Brownsville, TX, USA.

4. "Oceanography: tsunamis and coastal processes." **Froehlich, C.Y.M.** (October 2014). *University of Texas at Brownsville*. Brownsville, TX, USA.
3. "Graduate Seminar: Zotero software introduction." **Froehlich, C.Y.M.** (November 2014). *University of Texas at Brownsville*. Brownsville, TX, USA.
2. "Reaction to underwater predators: does size even matter?" **Froehlich, C.Y.M.** (July 2014). *Monday Night Science Cafe hosted by University of Texas Brownsville Physics Department*. Brownsville, TX.
1. "Artificial reef communities: culvert patch density on species diversity." **Froehlich, C.Y.M.** (March 2013). *Coastal and Terrestrial Ecology Research Symposium hosted by University of Texas Brownsville*. Brownsville, TX, USA.

## **GRANTS/AWARDS**

<i>ISBE 2020: Conference Best Abstracts Award – US\$200</i>	2020
International Society for Behavioral Ecology Abstract title: To swim or not to swim: decision making of translocated coral gobies in relation to habitat quality and social life	
<i>Center for Sustainable Ecosystem Solutions Additional Funding Initiative – AUD\$1312</i>	2020
School of Earth, Atmospheric, and Life Sciences, University of Wollongong, Australia To: Catheline Y.M. Froehlich and Siobhan J. Heatwole Project: Population Genetics of Habitat-Specialist Fishes	
<i>Center for Sustainable Ecosystem Solutions Funding Initiative – AUD\$1463</i>	2020
School of Earth, Atmospheric, and Life Sciences, University of Wollongong, Australia Project: Consequences of consecutive climatic disturbances on genetic diversity in coral-dwelling gobies	
<i>ACRS Student Research Award – AUD\$2,500</i>	2020
Australian Coral Reef Society, Australia Project: Investigating a link between devastating climatic events and changes in genetic diversity in coral-obligate fishes	
<i>Student Writing Retreat Scholarship – AUD\$364</i>	2020
Australian Coral Reef Society, Australia Project: Declines among corals and cryptobenthic fish symbionts from multiple disturbances	
<i>Center for Sustainable Ecosystem Solutions Funding Initiative – AUD\$2882</i>	2019
School of Earth, Atmospheric, and Life Sciences, University of Wollongong, Australia Project: Population connectivity of coral-dwelling gobies across geographically-discrete reef systems	
<i>SMAH HDR Student Travel Grant – AUD\$857</i>	2019
Faculty of Science, Medicine and Health, University of Wollongong, Australia	
<i>Student Travel Award – AUD\$390</i>	2019
Australian Coral Reef Society, Australia	
<i>Zoltan Florian Marine Biology Fellowship - AUD\$33,250</i>	2019-2021
Lizard Island Doctoral Fellowship Program, Australian Museum Project: Investigating the advantages of sociality in challenging environments using coral-dwelling gobies (genus <i>Gobiodon</i> )	

<i>Sea Turtle Inc Academic Scholarship - US\$500</i> Sea Turtle Inc.	2019
<i>University Postgraduate Award – Stipend Scholarship - AUD\$82,788</i> University of Wollongong, Australia	2019-2021
<i>International Postgraduate Tuition Scholarship - AUD\$131,520</i> University of Wollongong, Australia	2018-2022
<i>Center for Sustainable Ecosystem Solutions Funding Initiative - AUD\$500</i> Department of Biological Sciences, University of Wollongong, Australia Project: Investigating the advantages of sociality in degraded habitats using coral-dwelling gobies	2018
<i>Study Abroad Scholarship for Coral Reef Ecology in Belize - US\$1,500</i> The University of Texas at Brownsville, USA	2014
<i>3<sup>rd</sup> Place Award for Best Presentation</i> 16 <sup>th</sup> Annual University of Texas at Brownsville Research Symposium, USA	2014
<i>College of Science, Math, and Technology Talent Scholarship - US\$3,400</i> The University of Texas at Brownsville, USA	2013-2014
<i>Graduate Research Fellowship - US\$15,000</i> Department of Graduate Studies at The University of Texas at Brownsville, USA Project: A comparison of fish communities over different reef configurations in the northwestern Gulf of Mexico	2013-2014
<i>Talent Housing Scholarship - US\$1,500</i> Department of Residential Life at The University of Texas at Brownsville, USA	2013-2014

## **GRADUATE COURSEWORK**

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### *Ecology*

Topics in Biology - Coral Reef Ecology in Belize  
 Animal Behavior  
 Oceanography  
 Restoration Ecology  
 Topics in Biology – Climate Change  
 Topics in Biology - Coastal Ecology  
 Topics in Biology - Plant Ecology

### *Statistics*

Statistical Ecology  
 Biostatistics

### *Geological Sciences*

Coastal Geology

## **CERTIFICATIONS**

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<i>Administering Emergency Oxygen by Royal Life Saving</i>	Aug 2020
<i>Scientific SCUBA Diver at University of Wollongong (500+ scientific dives, 600+ hours)</i>	Sep 2018



<i>Scientific SCUBA Diver</i> by PADI	Sep 2018
<i>Rescue SCUBA Diver</i> by PADI	Sep 2018
<i>Remote First AID/CPR</i> by Allens Training	Jul 2018
<i>Beginner/Intermediate ArcGIS course</i> at 147 <sup>th</sup> American Fisheries Society Meeting	Aug 2017
<i>R Programming</i> by Johns Hopkins University on Coursera	Oct 2015
<i>Texas Coastal Naturalist</i> by Texas A&M University, USA	Mar 2014
<i>ATV/Off Road Vehicle</i> by Sea Turtle Inc. on South Padre Island, TX, USA	Apr 2013
<i>Nitrox SCUBA Diver</i> by PADI	Oct 2012
<i>Scientific SCUBA Diver</i> at University of Texas Rio Grande Valley	Aug 2012
<i>Advanced SCUBA Diver</i> by NAUI	Jul 2012
<i>Open Water SCUBA Diver</i> by NAUI	Nov 2011

## **LANGUAGE SKILLS**

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*English* – native language

*French* – bilingual proficiency

*Spanish* – speak, read, and write

*German* – speak, read, and some writing