

# RYAN J. ECKERT, PH.D.

Coral reef ecology, mesophotic coral ecosystems, molecular ecology



## 🎓 EDUCATION

- |                   |  |  |
|-------------------|--|--|
| 2025<br> <br>2019 | <ul style="list-style-type: none"><li>● <b>Ph.D. in Integrative Biology</b><br/>Florida Atlantic University<br/>Dissertation: Population genetics of shallow and mesophotic corals and sponges in Florida and the Gulf of Mexico<br/>Advisor: Dr. Joshua Voss</li></ul>                        | <span style="color: #808080;">📍</span> Boca Raton, FL  |
| 2019<br> <br>2017 | <ul style="list-style-type: none"><li>● <b>M.Sc. in Biological Sciences</b><br/>Florida Atlantic University<br/>Thesis: Population genetics and algal symbiont communities of the coral species <i>Montastraea cavernosa</i> on the Belize Barrier Reef<br/>Advisor: Dr. Joshua Voss</li></ul> | <span style="color: #808080;">📍</span> Boca Raton, FL  |
| 2009<br> <br>2005 | <ul style="list-style-type: none"><li>● <b>B.Sc. in Biological Sciences</b><br/>Florida State University<br/>Thesis: Associational resistance and susceptibility in <i>Solanum carolinense</i><br/>Advisor: Dr. Nora Underwood</li></ul>   | <span style="color: #808080;">📍</span> Tallahassee, FL |

## 🧪 RESEARCH EXPERIENCE

- |                      |   |  |
|----------------------|---|--|
| Present<br> <br>2025 | <ul style="list-style-type: none"><li>● <b>Postdoctoral Scholar</b><br/>FAU, Harbor Branch Oceanographic Institute<br/>Coral Reef Health and Molecular Ecology Lab</li></ul>        | <span style="color: #808080;">📍</span> Fort Pierce, FL |
| 2025<br> <br>2017    | <ul style="list-style-type: none"><li>● <b>Graduate Research Assistant</b><br/>FAU, Harbor Branch Oceanographic Institute<br/>Coral Reef Health and Molecular Ecology Lab</li></ul> | <span style="color: #808080;">📍</span> Fort Pierce, FL |
| 2017<br> <br>2009    | <ul style="list-style-type: none"><li>● <b>Research Specialist</b><br/>NOAA's Flower Garden Banks NMS<br/>Science Division</li></ul>  | <span style="color: #808080;">📍</span> Galveston, TX   |
| 2009<br> <br>2007    | <ul style="list-style-type: none"><li>● <b>Research Assistant</b><br/>Florida State University<br/>Underwood Lab</li></ul>  | <span style="color: #808080;">📍</span> Tallahassee, FL |

## 🏫 TEACHING EXPERIENCE

- |      |   |  |
|------|---|--|
| 2022 | <ul style="list-style-type: none"><li>● <b>Graduate Teaching Assistant / Lecturer</b><br/>FAU / FIO<br/>FIO Summer Marine Field Studies</li></ul>           | <span style="color: #808080;">📍</span> Long Key, FL    |
| 2017 | <ul style="list-style-type: none"><li>● <b>Graduate Teaching Assistant</b><br/>FAU, Harbor Branch Oceanographic Institute<br/>Marine Biodiversity</li></ul> | <span style="color: #808080;">📍</span> Fort Pierce, FL |

## CONTACT

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- 💻 ryanjeckert.weebly.com
- ⚙️ cnidaryan.bsky.social
- 👤 RyanEckert
- 👤 Ryan J Eckert

## SKILLS

- Coral reef ecology
- Technical SCUBA diving
- Closed-circuit rebreather diving
- 1000+ Scientific Dives
- 500+ days at sea
- 100+ research expeditions
- Multivariate data analysis
- NGS library prep
- Bioinformatic analyses

## LANGUAGE SKILLS



2014	● <b>Guest Lecturer</b> Texas A&M University at Galveston Scientific Diving Field Survey Methods	📍 Galveston, TX
2013		
2010	● <b>Instructor</b> Galveston Independent School District 21 <sup>st</sup> Century ACE	📍 Galveston, TX

## 👤 STUDENTS MENTORED

2018	● <b>Emily Chei</b> Link fellowship intern Assessing population connectivity of the coral <i>Montastraea cavernosa</i> along the northern Florida Reef Tract Presently a Ph.D. student at The University of Hong Kong
2017	● <b>Ashley Reaume</b> Link fellowship intern Optimized extraction and amplification of algal symbiont DNA from TRIzol preserved corals Presently a Ph.D. student at The University of Central Florida

## 📄 REFEREED PUBLICATIONS

2024	● <b>24. Recent trends and biases in mesophotic ecosystem research</b> <i>Biol Lett</i> (2024). doi: <a href="https://doi.org/10.1098/rsbl.2024.0465">10.1098/rsbl.2024.0465</a> Radice VZ, Hernandez-Agreda A, Pérez-Rosales G, Booker R, Bellworthy J, Broadribb M, Carpenter GE, Diaz C, Eckert RJ, Foster NL, Gijsbers JC, Gress E, Laverick JH, Micaroni V, Pierotti M, Rouzé H, Stevenson A, Sturm AB, Bongaerts P	Citations: 672 h-index: 16 i10-index: 21
2024	● <b>23. Assessment of nutrient amendments on stony coral tissue loss disease in Southeast Florida</b> <i>Front Mar Sci</i> (2024). doi: <a href="https://doi.org/10.3389/fmars.2024.1384534">10.3389/fmars.2024.1384534</a> Carreiro AM, Eckert RJ, Sturm AB, Ingalls TC, Combs IR, Walker BK, Voss JD	
2024	● <b>22. Cryptic diversity of shallow and mesophotic Stephanocoenia intersepta corals across Florida Keys National Marine Sanctuary</b> <i>Heredity</i> (2024). doi: <a href="https://doi.org/10.1038/s41437-024-00698-x">10.1038/s41437-024-00698-x</a> Eckert RJ, Sturm AB, Carreiro AM, Klein AM, Voss JD	
2024	● <b>21. Algal symbiont genera but not coral host genotypes correlate to stony coral tissue loss disease susceptibility among <i>Orbicella faveolata</i> colonies in South Florida</b> <i>Front Mar Sci</i> (2024). doi: <a href="https://doi.org/10.3389/fmars.2024.1287457">10.3389/fmars.2024.1287457</a> Klein, AM, Sturm AB, Eckert RJ, Walker BK, Neely KL, Voss JD	
2023	● <b>20. Does depth divide? Variable genetic connectivity patterns among shallow and mesophotic <i>Montastraea cavernosa</i> coral populations across the Gulf of Mexico and western Caribbean</b> <i>Ecol Evol</i> (2023). doi: <a href="https://doi.org/10.1002/ece3.10622">10.1002/ece3.10622</a> Sturm AB, Eckert RJ, Carreiro AM, Klein, AM, Studivan MS, Dodge Farelli D, Simões N; González-Díaz P, González Méndez J, Voss JD	

- 2023 • **19. *Porites astreoides* coral populations demonstrate high clonality and connectivity in southeast Florida**  
*Coral Reefs* (2023). doi:[10.1007/s00338-023-02417-0](https://doi.org/10.1007/s00338-023-02417-0)  
Shilling EN, Eckert RJ, Sturm AB, Voss JD
- 2023 • **18. Stony coral tissue loss disease intervention with amoxicillin leads to a reversal of disease-modulated gene expression pathways**  
*Mol Ecol* (2023). doi:[10.1111/mec.17110](https://doi.org/10.1111/mec.17110)  
Studivan MS, Eckert RJ, Shilling EN, Soderberg N, Enochs IC, Voss JD
- 2023 • **17. Diet and Feeding Ecology of the Whitespotted Eagle Ray (*Aetobatus narinari*) from Florida Coastal Waters Revealed via DNA Barcoding**  
*Fishes* (2023). doi:[10.3390/fishes8080388](https://doi.org/10.3390/fishes8080388)  
Cahill BV, Eckert RJ, Bassos-Hull K, Ostendorf TJ, Voss JD, DeGroot BC, Ajemian MJ
- 2023 • **16. Coral disease outbreak at the remote Flower Garden Banks, Gulf of Mexico**  
*Front Mar Sci* (2023). doi:[10.3389/fmars.2023.1111749](https://doi.org/10.3389/fmars.2023.1111749)  
Johnston MA, Studivan MS, Enochs IC, Correa AMS, Besemer N, Eckert RJ, Edwards K, Hannum R, Hu X, Nuttall MF, O'Connel K, Palacio-Castro AM, Schmahl GP, Sturm AB, Ushijima B, Voss JD
- 2022 • **15. Depth-dependent genetic structuring of a depth-generalist coral and its Symbiodiniaceae algal communities at Campeche Bank, Mexico**  
*Front Mar Sci* (2022). doi:[10.3389/fmars.2022.835789](https://doi.org/10.3389/fmars.2022.835789)  
Sturm AB, Eckert RJ, Carreiro AM, Simões N, Voss JD
- 2022 • **14. Population genetic structure of a broadcast spawning coral, *Montastraea cavernosa*, demonstrates refugia potential of upper mesophotic populations in the Florida Keys**  
*Coral Reefs* (2022). doi:[10.1007/s00338-021-02112-y](https://doi.org/10.1007/s00338-021-02112-y)  
Sturm AB, Eckert RJ, Carreiro AM, Voss JD
- 2021 • **13. Quantifying impacts of stony coral tissue loss disease on corals in Southeast Florida through surveys and 3D photogrammetry**  
*PLoS ONE* (2021). doi:[10.1371/journal.pone.0252593](https://doi.org/10.1371/journal.pone.0252593)  
Combs IR, Studivan MS, Eckert RJ, Voss JD
- 2020 • **12. Population genetic structure of the great star coral, *Montastraea cavernosa*, across the Cuban archipelago with comparisons between microsatellite and SNP markers**  
*Sci Rep* (2020). doi:[10.1038/s41598-020-72112-5](https://doi.org/10.1038/s41598-020-72112-5)  
Sturm AB, Eckert RJ, González Méndez J, González-Díaz P, Voss JD
- 2020 • **11. Depth influences Symbiodiniaceae associations among *Montastraea cavernosa* corals on the Belize Barrier Reef**  
*Front Microbiol* (2020). doi:[10.3389/fmicb.2020.00518](https://doi.org/10.3389/fmicb.2020.00518)  
Eckert RJ, Reaume AM, Sturm AB, Studivan MS, Voss JD

- 2020 • **10. Population structure of the scleractinian coral, *Montastraea cavernosa*, in Southeast Florida**  
*Bull Mar Sci* (2020). [doi:10.5343/bms.2019.0074](https://doi.org/10.5343/bms.2019.0074)  
Dodge DL, Studivan MS, Eckert RJ, Chei E, Beal J, Voss JD
- 2019 • **9. Populations of the coral species *Montastraea cavernosa* on the Belize Barrier Reef lack vertical connectivity**  
*Sci Rep* (2019). [doi:10.1038/s41598-019-43479-x](https://doi.org/10.1038/s41598-019-43479-x)  
Eckert RJ, Studivan MS, Voss JD
- 2019 • **8. The Mesoamerican Reef**  
*In: Loya Y, Puglise KA, Bridge TCL (eds) Mesophotic Coral Ecosystems of the World. Springer International Publishing, Cham, pp 71-84 (2019).* [doi:10.1007/978-3-319-92735-0\\_5](https://doi.org/10.1007/978-3-319-92735-0_5)  
Gress E, Voss JD, Eckert RJ, Rowlands G, Andradi-Brown DA
- 2019 • **7. Coral bleaching and recovery from 2016 to 2017 at East and West Flower Garden Banks, Gulf of Mexico**  
*Coral Reefs* (2019). [doi:10.1007/s00338-019-01788-7](https://doi.org/10.1007/s00338-019-01788-7)  
Johnston MA, Hickerson EL, Nuttall MF, Blakeway RD, Sterne TK, Eckert RJ, Schmahl GP
- 2019 • **6. Localized coral reef mortality event at East Flower Garden Bank, Gulf of Mexico**  
*Bull Mar Sci* (2019). [doi:10.5343/bms.2018.0057](https://doi.org/10.5343/bms.2018.0057)  
Johnston MA, Nuttall MF, Eckert RJ, Blakeway RD, Sterne TK, Hickerson EL, Schmahl GP, Lee MT, MacMillan J, Embesi JA
- 2018 • **5. Seasonal variability of carbonate chemistry and decadal changes in waters of a marine sanctuary in the Northwestern Gulf of Mexico**  
*Mar Chem* (2018). [doi:10.1016/j.marchem.2018.07.006](https://doi.org/10.1016/j.marchem.2018.07.006)  
Hu X, Nuttall MF, Wang H, Yao H, Staryk CJ, McCutcheon MR, Eckert RJ, Embesi JA, Johnston MA, Hickerson EL, Schmahl GP, Manzello D, Enochs IC, DiMarco S, Barbero L
- 2016 • **4. Persistence of coral assemblages at East and West Flower Garden Banks, Gulf of Mexico**  
*Coral Reefs* (2016). [doi:10.1007/s00338-016-1452-x](https://doi.org/10.1007/s00338-016-1452-x)  
Johnston MA, Embesi JA, Eckert RJ, Nuttall MF, Hickerson EL, Schmahl GP
- 2016 • **3. Rapid invasion of Indo-Pacific lionfishes *Pterois volitans* (Linnaeus, 1758) and *P. miles* (Bennett, 1828) in Flower Garden Banks National Marine Sanctuary, Gulf of Mexico, documented in multiple data sets**  
*BioInvasions Rec* (2016). [doi:10.3391/bir.2016.5.2.09](https://doi.org/10.3391/bir.2016.5.2.09)  
Johnston MA, Nuttall MF, Eckert RJ, Embesi JA, Sterne TK, Hickerson EL, Schmahl GP
- 2014 • **2. Lionfish (*Pterois volitans* [Linnaeus, 1758] and *P. miles* [Bennett, 1828]) records within mesophotic depth ranges on natural banks in the Northwestern Gulf of Mexico**  
*BioInvasions Rec* (2014). [doi:10.3391/bir.2014.3.2.09](https://doi.org/10.3391/bir.2014.3.2.09)  
Nuttall MF, Johnston MA, Eckert RJ, Embesi JA, Hickerson EL, Schmahl GP

2012

● **1. Flower Garden Banks – A refuge in the Gulf of Mexico?**

*In: Yellowlees D, Hughes TP (eds) Proceedings of the 12th International Coral Reef Symposium (2012).*

Hickerson EL, Schmahl GP, Johnston MA, Nuttall MF, Embesi JA, Eckert RJ



## MANUSCRIPTS IN PREPARATION

- **Population genetics of the giant barrel sponge, *Xestospongia muta*, reveal distinct, hybridizing lineages across the Florida Reef Tract**  
*(in review)*  
Eckert RJ, Sturm AB, Carreiro AM, Voss JD
- **Genetic insights of key habitat-forming coral and sponge populations in Flower Garden Banks National Marine Sanctuary**  
*(in prep)*  
Eckert RJ, Sturm AB, Pantoni GS, Herrera S, Voss JD
- **Coral genetic lineages do not predict disease resistance or survivorship: a multi-species restoration experiment to assess stony coral tissue loss disease susceptibility**  
*(in revision)*  
Bell SL, Shilling EN, Pantoni GS, Eckert RJ, Sturm AB, Sharp WC, Muller EM, Gilliam DS, Lirman D, Bourque AS, Voss JD



## TECHNICAL REPORTS

- 2018 ● **Stetson Bank Long-term monitoring: 2016 annual report**  
*Marine Sanctuaries Conservation Series ONMS-19-02. U.S. Department of Commerce, NOAA, FGBNMS, Galveston, TX. (2018).*  
Nuttall MF, Sterne TK, Eckert RJ, Hu X, Sinclair J, Hickerson EL, Embesi JA, Johnston MA, Schmahl GP
- 2017 ● **Long-term monitoring at East and West Flower Garden Banks: 2016 annual report**  
*Marine Sanctuaries Conservation Series ONMS-17-09. U.S. Department of Commerce, NOAA, FGBNMS, Galveston, TX. (2017).*  
Johnston MA, Sterne TK, Eckert RJ, Nuttall MF, Embesi JA, Walker RD, Hu X, Hickerson EL, Schmahl GP
- 2017 ● **Long-term monitoring at Stetson Bank, Flower Garden Banks National Marine Sanctuary, 2015 annual report**  
*Marine Sanctuaries Conservation Series ONMS-17-06. U.S. Department of Commerce, NOAA, FGBNMS, Galveston, TX. (2017).*  
Johnston MA, Sterne TK, Eckert RJ, Nuttall MF, Embesi JA, Walker RD, Hu X, Hickerson EL, Schmahl GP
- 2017 ● **Long-term monitoring at the East and West Flower Garden Banks National Marine Sanctuary, 2013–2015, volume 1: technical report**  
*U.S. Dept. of Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 2017-058. (2017).*  
Johnston MA, Eckert RJ, Nuttall MF, Sterne TK, Embesi JA, Manzello DP, Hickerson EL, Schmahl GP

- 2016 ● **Long-term monitoring at East and West Flower Garden Banks: 2015 annual report**  
*U.S. Marine Sanctuaries Conservation Series ONMS-16-02. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Flower Garden Banks National Marine Sanctuary, Galveston, TX. (2016).*  
Johnston MA, Eckert RJ, Sterne TK, Nuttall MF, Hu X, Embesi JA, Hickerson EL, Schmahl GP
- 2015 ● **Long-term monitoring at East and West Flower Garden Banks National Marine Sanctuary: 2014 annual report**  
*U.S. Department of Commerce, NOAA, FGBNMS, Galveston, TX. (2015).*  
Johnston MA, Sterne TK, Eckert RJ, Nuttall MF, Embesi JA, Walker RD, Hu X, Hickerson EL, Schmahl GP
- 2015 ● **Long-term monitoring at East and West Flower Garden Banks National Marine Sanctuary, 2011–2012, volume 1: technical report**  
*U.S. Dept. of Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, Louisiana. OCS Study BOEM 2015-027. (2015).*  
Johnston MA, Nuttall MF, Eckert RJ, Embesi JA, Slowey NC, Hickerson EL, Schmahl GP
- 2014 ● **Long-term monitoring at East and West Flower Garden Banks National Marine Sanctuary: 2013 annual report**  
*U.S. Department of Commerce, NOAA, FGBNMS, Galveston, TX. (2014).*  
Johnston MA, Nuttall MF, Eckert RJ, Embesi JA.
- 2013 ● **Long-term monitoring at the East and West Flower Garden Banks National Marine Sanctuary, 2009–2010, volume 1: technical report**  
*U.S. Dept. of Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, Louisiana. OCS Study BOEM 2013-214. (2013).*  
Johnston MA, Nuttall MF, Eckert RJ, Embesi JA, Slowey NC, Hickerson EL, Schmahl GP

## PRESENTATIONS

- 2024 ● **Cryptic diversity of *Stephanocoenia intersepta* corals throughout Southeast Florida and the Florida Keys**  
2024 AAUS Diving for Science Symposium 📍 Fort Pierce, FL  
Eckert RJ, Sturm AB, Carreiro AM, Pantoni GS, Klein AM, Voss JD  
Poster presentation
- 2024 ● **Cryptic diversity of *Stephanocoenia intersepta* corals throughout Southeast Florida and the Florida Keys**  
52nd Annual Benthic Ecology Meeting 📍 Charleston, SC  
Eckert RJ, Sturm AB, Carreiro AM, Pantoni GS, Klein AM, Voss JD  
Poster presentation
- 2023 ● **Genetically divergent mesophotic and shallow *Stephanocoenia intersepta* populations in the Florida Keys**  
51st Annual Benthic Ecology Meeting 📍 Miami, FL  
Eckert RJ, Sturm AB, Carreiro AM, Klein AM, Voss JD  
Poster presentation

- 2023 • **Genetically divergent mesophotic and shallow *Stephanocoenia intersepta* populations in the Florida Keys**  
Mesophotic Coral Ecosystem Gordon Research Conference       Ventura, CA  
Eckert RJ, Sturm AB, Carreiro AM, Klein AM, Voss JD  
Poster presentation  
*Best overall student presentation*
- 2023 • ***Stephanocoenia intersepta* corals in Florida Keys National Marine Sanctuary exhibit depth-dependent genetic structure**  
Mesophotic Coral Ecosystem Gordon Research Symposium       Ventura, CA  
Eckert RJ, Sturm AB, Carreiro AM, Klein AM, Voss JD  
Oral presentation
- 2022 • **Genetic connectivity and algal symbiont communities of shallow and mesophotic *Stephanocoenia intersepta* populations in the Florida Keys**  
15th International Coral Reef Symposium       Bremen, Germany.  
Eckert RJ, Sturm AB, Carreiro AM, Klein AM, Voss JD  
Oral presentation
- 2022 • **Genetic connectivity and genetic diversity of shallow and mesophotic *Stephanocoenia intersepta* populations throughout Florida Keys National Marine Sanctuary.**  
50th Annual Benthic Ecology Meeting       Portsmouth, NH.  
Eckert RJ, Sturm AB, Carreiro AM, Klein AM, Voss JD  
Oral presentation
- 2019 • **Genetically distinct depth-stratified *Montastraea cavernosa* coral populations on the Belize Barrier Reef harbor relatively homogenous Symbiodiniaceae communities**  
48th Annual Benthic Ecology Meeting       St. John's, NL, Canada.  
Eckert RJ, Reaume A, Voss JD  
Oral presentation
- 2019 • **Populations of the coral species *Montastraea cavernosa* lack vertical connectivity on the Belize Barrier Reef**  
ASLO Aquatic Sciences Meeting       San Juan, PR.  
Eckert RJ, Studivan MS, Voss JD  
Poster presentation
- 2018 • **Affordable and ecologically relevant graduate research on the world's second largest barrier reef? You better Belize it!**  
HBOI Science Seminar       Ft. Pierce, FL.  
Eckert RJ and Studivan MS  
Oral presentation
- 2018 • **Connected corals: population genetics of *Montastraea cavernosa* on the Belize Barrier Reef**  
HBOI Ocean Discovery Center Marine Science Friday       Ft. Pierce, FL.  
Eckert RJ  
Oral presentation

- 2018 ● **Breaking point: population genetics reveal a lack of vertical connectivity of *Montastraea cavernosa* on the Belize Barrier Reef**  
47th Annual Benthic Ecology Meeting  
Eckert RJ, Studivan MS, Voss JD  
Oral presentation
- 📍 Corpus Christi, TX.
- 2013 ● **Ciguatera fish poisoning in the northwestern Gulf of Mexico.**  
66th Gulf and Caribbean Fisheries Institute Conference  
Eckert RJ, Loeffler C, Robertson A, Johnston MA, Hickerson EL, Schmahl GP  
Poster presentation
- 📍 Corpus Christi, TX
- 2009 ● **Associational resistance and susceptibility in *Solanum carolinense***  
Southeastern Ecology and Evolution Conference  
Eckert RJ, Kim T, Underwood N  
Poster presentation
- 📍 Gainesville, FL.

## ⌚ FUNDING

- 2023 ● **Smithsonian NMNH Research Fellowship**  
\$16,000
- 2023 | 2017 ● **FAU GPSA Travel Awards**  
\$3,023
- 2021 ● **PADI Foundation Grant**  
\$4,377
- 2021 | 2019 ● **FAU Presidential Fellowship**  
\$10,000
- 2018 ● **FAU Thesis Award**  
\$500
- 2018 ● **PADI Foundation Grant**  
\$4,973
- 2009 ● **Bess H. Ward Honors Thesis Award**  
\$1,000
- 2009 | 2005 ● **Florida Bright Futures Academic Scholarship**  
\$14,850
- 2009 | 2005 ● **Florida State University Freshman Academic Scholarship**  
\$8,000
- 2005 ● **Florida State University Freshman AP Scholarship**  
\$500

## ⚙️ AWARDS

- 2025 ● **Graduate Researcher of the Year**  
Florida Atlantic University Northern Campus Awards
- 2025 ● **Florida Atlantic University Student Publishing Award**  
Awarded for 3 publications in 2024

- 2021 • **Florida Atlantic University Presidential Fellow**
- 2019 |
- 2020 • **Florida Atlantic University Student Publishing Award**  
Awarded for 3 publications in 2019
- 2009 • **Florida State University Dean's List**
- 2006 |
- 2005 • **Florida State University President's List**

## CERTIFICATIONS

- **AAUS Scientific Diver**  
100 m, CCR, Trimix
- **TDI Technical SCUBA Diver**  
Advanced Nitrox, Decompression Procedures, Trimix 100 m, Closed-Circuit Rebreather, Advanced Mixed Gas CCR
- **PADI Trimix Gas Blender**
- **DAN Oxygen delivery, First Aid, and CPR for scuba diving injuries**
- **USCG Licensed Merchant Mariner**  
100 GRT
- **USFWS Motorboat Operator Certification Course**
- **Sea-Bird Electronics technician**
- **NOAA Working SCUBA Diver**

## SKILLS

- **DNA and RNA extraction, PCR, qPCR, Gel electrophoresis, NGS library preparation, Agilent Bioanalyzer (DNA, RNA)**
- **Bioinformatic analyses, multivariate statistics, and data visualization**  
R statistical software, Python, Bash, PRIMER7, and CPCe
- **Coral sampling, benthic surveys, fish surveys, photography, navigation and mapping**
- **Offshore field research cruise planning, logistics, and execution**
- **Technical SCUBA diving, closed-circuit rebreather diving, operation of Nitrox compressor systems, and Trimix blending**

- **Setup, operation, and maintenance of oceanographic equipment**  
Sea-Bird Electronics, Onset HOBO, YSI
- **Adobe InDesign, Adobe Illustrator, and Adobe Photoshop**
- **Operation, navigation, and handling of small boats**  
Marlinspike, and mooring buoy construction/installation/maintenance

## MEMBERSHIP AND SERVICE

Present   2020	● <b>Mesophotic.org</b> Content Editor
Present   2019	● <b>International Coral Reef Society</b>
Present   2017	● <b>Benthic Ecology Meeting Society</b>
	● <b>Reviewer for:</b> Scientific Reports, Environmental Monitoring and Assessment, Marine Ecology Progress Series
2022	● <b>HBOI Graduate Student Association</b> Vice President <span style="float: right;"> Ft. Pierce, FL</span>
2021, 2019	● <b>HBOI Graduate Student Association</b> Secretary <span style="float: right;"> Ft. Pierce, FL</span>
2019   2018	● <b>Association for the Studies of Limnology and Oceanography</b>

## REFERENCES

- **Dr. Joshua Voss**  
*Ph.D. Advisor*  
Florida Atlantic University  
[jvoss2@fau.edu](mailto:jvoss2@fau.edu)
- **Dr. Adrienne Correa**  
*Assistant Professor*  
UC Berkeley  
[amsc@berkeley.edu](mailto:amsc@berkeley.edu)
- **G.P. Schmahl**  
*Superintendent*  
Flower Garden Banks National Marine Sanctuary  
[george.schmahl@noaa.gov](mailto:george.schmahl@noaa.gov)