01/17/24



UF FLORIDA



#FSGsymp24 @FloridaSeaGrant

Session III Student Interns

FLORIDA SEA GRANT'S 2024 SYMPOSIUM: SPOTLIGHTING UF'S ROLE

Clark Morgan

FSG Graduate Researcher & Scholarship Recipient PhD Marine Science and Oceanography, FAU/HBOI

Student Interns **By Morgan**



GRA

FLORIDA SEA



Project Overview Relevance: Recovering populations have created "nuisance" interactions, targeted sport fishery, ecotourism dive industry, and a recent juvenile harvest program.

Objective: Classify post-release behavior from acoustic telemetry depth profiles of goliath grouper that were: vented surface released

descended with weight

Preliminary Results: Dataset of 60+ depth profiles, 15m-33m depths





Outcomes: dissemination of best handling practices with gear recommendations; potential implications on spawning aggregations (sound production)



Student Interns By Moncrieff



PROJECT OVERVIEW

- Goal of the study was to determine role of Alphaproteobacteria in the coral microbiome
- Alphaproteobacteria are present in healthy corals as well as demonstrate increased growth in diseased corals
- Determined:
 - Alphaproteobacteria did not demonstrate antimicrobial activity
 against Vibrio coralliilyticus nor Vibrio harveyi using inhibition assays







Beneficial Microbes for Coral

Julia Moncrieff FSG Undergraduate Research Intern, UF/IFAS SWES Supervisor: Dr. Julie Meyer

ACKNOWLEDGEMENTS & NEXT STEPS

- The search for beneficial microbes continues!
- I would like to thank:
 - Dr. Julie Meyer for selecting me for the internship and her mentorship throughout my project
 - All the members of the Meyer Microbes lab for their assistance throughout my project and in welcoming me into the lab
 - Florida Sea Grant for providing the funding to support my internship and giving me the opportunity to present my research at the FSG symposium



Student Interns By Hollis



SCHOOL OF FOREST, FISHERIES, AND GEOMATICS SCIENCES

Oyster Settlement Dynamics in Cedar Key, FL

Kylie Hollis

FSG Intern and Lab Technician University of Florida - School of Forestry, Fisheries, and Geomatic Sciences Dr. Anna Braswell, Coastal Ecosystems and Watersheds Lab

Project Overview

Relevance

- Decline and possible collapse of oyster populations in the Big Bend¹
- Stunted ecosystem services²
- Increase in restoration efforts
 Understanding abiotic factors to increase success
- My questions
- How does oyster recruitment vary with shell mobility?
- How does oyster recruitment vary with the presence of biofilm?
- Methods
- Variables:
 - mobility: loose vs fenced vs cemented
 - · biofilm: presence (in situ shell) vs absence (recycled shell)
 - dependent: settled spat/cm³
- 2 sites x 3 repetitions of each combination (LP, LA, FP, FA, CP, CA)

Scavey, J. R., W. E. Pine, P. Frederick, L. Sturmer, and M. Berrigan. "Decadal Changes in Oyster Reefs in the Big Bend of Florids's Guif Coast." Ecosphere 2, no. 10 (2011). https://doi.org/10.1880/es11.02026.1. "Errogasses, Philine 5: zu, Mark D. Spalding, Raymond E. Grizzle, and Robert D. Brumbaugh. "Quantifying the Loss of a Marine Ecosystem Service: Filtration by the Eastern Oyster in US Estuaries." Estuaries and Coasts 36, no. 1 (2012): 36–4

Acknowledgements



Student Interns **By Ruiz**





Carribean Carbon Accounting in Seagrass

Bianca Ruiz FSG Undergraduate Research Intern UF/IFAS Soil, Water, and Ecosystem Sciences Dr. Laura K. Reynolds with the Reynold's Coastal and Marine Ecology Lab Dr. Savanna C. Barry





Make You a Better Scientist!

















Acknowledgements

Thank you to everyone in Reynold's lab who helped me make the most of my Internship!

- o Dr. Laura K. Reynolds and the Reynolds Lab
- Dr. Savanna C. Barry
- Dr. Christine Rohal, Lab Manager
- o Dr. Jim Fourgurean and the FIU Seagrass Ecosystem Research Lab
- Dr. Justin Campbell
- The Nature Conservancy

This experience was extremely helpful in helping me to develop both lab and field skills. In the future, I hope to pursue a career focused on coastal and marine ecology, looking at how human and environmental impacts can influence local species and ecosystem dynamics.

Student Interns By Lei



PROJECT OVERVIEW

- Objectives
 - To determine the effective concentration of bacteriophages against Vibrio parahaemolyticus.
- Purpose
- Find suitable virus to bacteria ratio for improved antibacterial activity
- Accomplishments
- Antibacterial activity of single bacteriophages were measured.



Application of phage against Vibrio parahaemolyticus Optimization of phage concentration

Avleen Lei

Undergraduate Research Assistant Food Science and Human Nutrition Department Dr. Naim Montazeri

SCIENTIFIC FINDINGS 0.0001 0.001 0.01 0.1 1.5 1.0 0.5



8.16 p9_vp4_1

7.18 p9_vp4_2

Lag phase in hours 4.83 5.07 5.00 4.98 p9_vp4_0.01 4.80 7.69 p9_vp4_0.1 4.79

5.02 7.18

NEXT STEPS

- Use of virus mixture (cocktail)
- Applying to oysters

ACKNOWI EDGEMENTS

- Food and Environmental Virology Lab at UF FSHN
- Courtney Aminirad Florida Sea Grant Intern 2022
- Dr. Naim Montazeri
- Florida Sea Grant

p10_vp3_0.1

p10_vp3_1

p10_vp3_2

Student Interns By Douglas







Reflection

- Practical experience real world scenarios
- Assist in efficiency, productivity, sustainability, etc.
- Research project

Sample Tasks

- USDA Procurements
- USDA Key People
- Farm Bill

777 - 22 Jacks 1 (28)	20000 111000		101,121.00	-	17.14	PARAL
570 Wild Salmon Fillet	36000 Recentein	5	255,240.00	5	7.09	Bakenfold
1990 Wild Salmon Fillet	36000 Bornstein	\$	255,243.00	\$	7,09	Durken
610 Wild Salace Fillet	36000 Bernstein	5	255,243.00	5	7.09	Englier
630 Wild Salaron Fillet	36000 Bernstein	5	266,043.00	5	7.39	Fairfield
650 Wild Salmon Fillet	36000 Trident	5	266,400.00	5	7,40	Ereseo
670 Wild Salmon Fillet	36000 Scenstein	5	266,040.00	5	7.39	Modento
1990 Wild Salmon Fillet	36000 Recentein	5	255,240.00	5	7.09	Moss Landing
710 Wild Salmon Fillet	36000 Bornstein	\$	266,043.00	\$	7.39	Outland
730 Wild Salmon Fillet	36000 Orea Bay	5	331,593.00	5	9.21	San Francisco
750 Wild Salaron Fillet	36000 Bernstein	5	266,493.00	5	7.40	San Jose
770 Wild Salmon Fillet	36000 Trident	5	271,443.00	5	7.54	Wallingford
790 Wild Salmon Fillet	35000 Trident	5	272,160.00	5	7.55	Homestered



Special Acknowledgements

- Dr. Andrew Ropicki, Assistant Professor and Marine Economics Specialist
- Damien Claire, Chief Sales & Marketing Officer, Atlantic Sapphire
- Roberto Ferrer, Government Relations Liaison, Florida Sea Grant

