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## Inspiring the Next Generation: A Classroom Visit Exploring Marine Ecosystem Invaders

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# Inspiring the Next Generation: A Classroom Visit Exploring Marine Ecosystem Invaders

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University of Central Florida, Orlando, FL

## Abstract

We visited Geneva Elementary School and met with a class of fifteen fifth-grade students to teach them about marine invasive species in Florida. Our goal was to introduce them to a marine environmental issue that would inspire an interest in them for marine conservation. Our team created a presentation and activities for the class to better their understanding of the concept of invasive species. We created an outdoor game for the class, the point being to display how invasive species can outcompete native species using lionfish as an example. Two students were sharks, three students were reef fish, and the rest of the students were lionfish. The objective was to see who could capture the most fish, lionfish, or sharks. The lionfish were given an unfair advantage over the sharks and thus showed the students how lionfish outcompete native predators. We also gave the students a lionfish-themed take-home item, made an invasive species photo frame for photo opportunities, a take-home wanted poster that they could design and write facts on that they learned, and a pre- and post-test to gauge how much the students learned.

## Community Impact



Two students smiling with their take-home lionfish crafts

Our aim with this project was to educate elementary students about marine invasive species in an entertaining way. We were able to directly impact fifteen students with our project.

Additionally, by creating a memorable experience for them, as well as providing them with fun, take-home items, like the lionfish eggs, coloring sheet, and Hawaiian leis, we also impacted the friends and family with whom they would go home and share with their experience.



Some of the students completing their post-tests

## Reflections

*"Working with likeminded individuals who share a passion for educating others about marine life really taught me how valuable and enjoyable such an experience can be."* – Declan Ridgeway

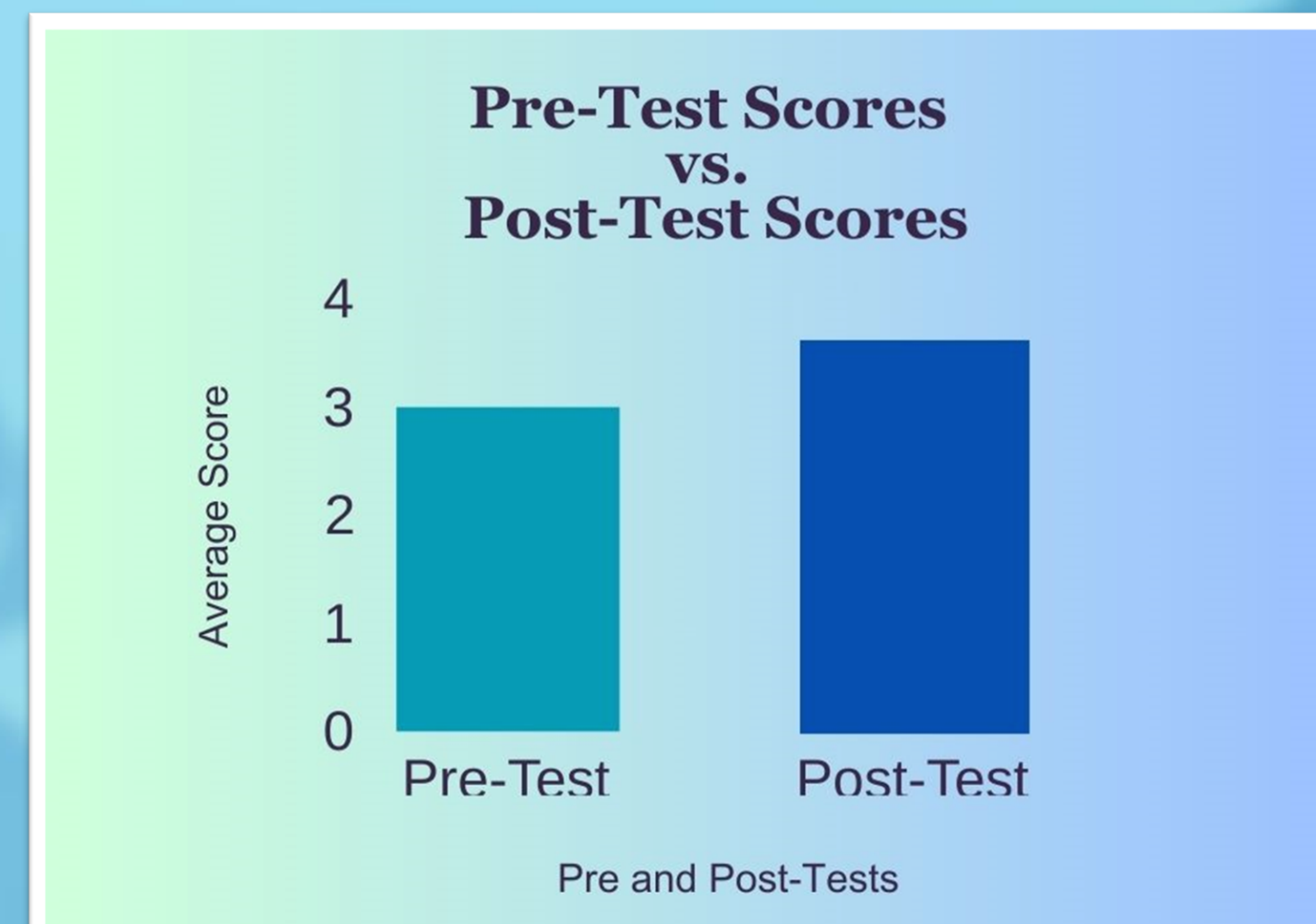
*"This experience has taught me how to better communicate science to audiences of various backgrounds. I've also learned a lot about my personal goals in life and have found a passion for teaching about science. In the future I would like to explore career paths in outdoor education to help foster respect for the environment in my community."* – Lauren Mettke

*"Our experience at Geneva Elementary was very rewarding for me, and getting to see them enjoy the activities we planned made me feel like we were teaching them something about conservation they wouldn't forget."* – Morgan Vasser

*"It was awesome to see how engaged the class was! Their excitement inspired me to want to become more involved in educating others about conservation and explore the topics we covered in our class to a greater depth."* – Brittany Shirley

*"I loved teaching children about this topic and was very surprised at how much they already knew about invasive species. It was fun to further their understanding and hopefully inspire them to tell others what they learned about!"* – Madeline Cox

We all agreed as a team that this experience has given us a greater appreciation for service learning and education.



The students' test average climbed from 75% to 90%



The fifteen fifth-grade students and our team

## Civic Responsibility

- As students with an interest in the natural world, we also feel it is within our responsibility to advocate for the conservation and well-being of these environments for future generations to experience.
- We hoped to educate and inspire our local youth to become the world's next stewards of conservation and scientists by informing them of a topic of environmental concern.
- Bringing awareness to these issues is a key step in garnering attention and support for solving them.
- They learned about what they can do to combat existing invasive species, and how to prevent their introduction.
- Overall, we feel that this was a positive experience for children in promoting passion and interest in the preservation and understanding of nature.



Two students smiling and wearing the shark fins used for our outdoor lionfish/shark predation game



The class participating in our outdoor lionfish/shark predation game



Four students posing with the invasive species photo frame with their take-home lionfish item

## Course Connection

The goal of this class was to not only learn about marine conservation and restoration but also to better our science communication skills and impact our community through service learning. Our classroom visit encompassed all of this, as it was a great opportunity to inspire the future generation, who can make a difference in conservation efforts. We practiced communicating scientific ideas in class by presenting to our classmates and participating in UCF STEM Day, which helped familiarize us with the grade level we taught. Additionally, a topic we discussed in class is how humans are the cause of species invasions the majority of the time. In the case of the invasive species we highlighted, all of them were transported by humans, either through a ship's ballast water, hitchhiking on a ship's hull, or through the aquarium trade.



Two students posing in the invasive species photo frame with their take-home lionfish crafts



Two students smiling and wearing the lionfish vests used for our outdoor game

## Acknowledgements

We would like to thank Geneva Elementary School and Ms. Bough-Vonhagel for allowing us the opportunity to come and speak. Also, we would like to thank Ms. Bough-Vonhagel's 5th grade class for being a great audience and for making us feel welcomed. Lastly, a special thank you to Dr. Linda Walters for providing us with this extremely valuable opportunity to gain experience in public outreach and education.

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