

**Laura Abreu Nicolas**  
**Cornell University, College of Veterinary Medicine, Class of 2025**  
**2024 Mississippi Aquarium Externship Report**

I would like to extend my deepest gratitude to the American Association of Fish Veterinarians (AAFV) for selecting me as a recipient of the scholarship. This generous support enabled me to undertake an enriching externship at the Mississippi Aquarium, where I gained invaluable hands-on experience in aquatic veterinary medicine. I also want to express my heartfelt thanks to Dr. Alexa Delaune, Dr. Sean Perry, and CVT Kristen Hales for their guidance, mentorship, and support throughout my time at the aquarium. Their expertise and dedication to the field were truly inspiring, and I am grateful for the knowledge and skills they shared with me.



During my time at the Mississippi Aquarium, I had the privilege of working with a diverse range of aquatic species. This experience allowed me to develop my skills and broaden my understanding of veterinary practices in



an aquatic setting.

In my first week, I was introduced to the use of ultrasound in rays. This was a fascinating learning experience, where I learned to assess the health of these animals using ultrasound. I also learned the techniques for obtaining blood samples and administering intravenous (IV) and intramuscular (IM) injections to rays, which are essential skills in aquatic veterinary care.

The following weeks provided me with the opportunity to learn about dolphin health management. I learned about dolphin ultrasounds, and the insight into the complexities

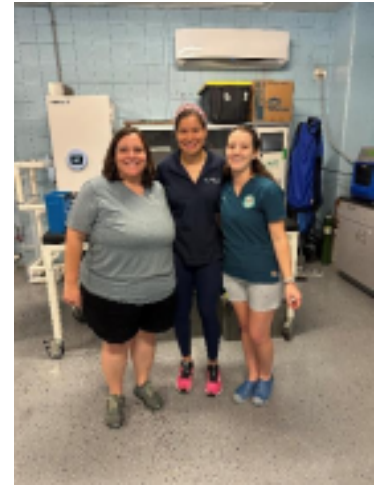
of diagnosing and treating marine mammals. Additionally, I learned about the treatment of fungal infections in dolphins, which required a comprehensive understanding of marine animal health and the unique challenges associated with their care.

One of the most impactful experiences during my externship was participating in a project where rays were neutered, providing me with a unique opportunity to observe and assist in surgical procedures on aquatic animals. Also I was involved in fish necropsies. This hands-on experience allowed me to understand the importance of diagnostic sampling for identifying diseases and determining the causes of death in fish.

Another significant experience was working with a freshwater bass. I was part of a work-up, where I assisted in drawing blood, collecting skin scrapes, and obtaining gill samples for diagnostic purposes. This also included performing a necropsy and collecting tissue samples, which enhanced my understanding of fish anatomy and pathology.

Additionally, I had the opportunity to provide wound care to a river turtle on a weekly basis. I had the experienced to learned about wound debridement and surgical revision techniques, which are critical for the successful treatment of injuries in reptiles.

I also assisted in anesthetizing frogs and conducting barium studies to diagnose potential causes of rectal prolapse. These procedures underscored the importance of precision and care in veterinary practices for small and sensitive species.



Finally, I had the chance to assist in the X-ray examination of a fish diagnosed with scoliosis. This experience highlighted the challenges of diagnosing and treating skeletal disorders in aquatic animals and the importance of advanced diagnostic tools in veterinary care.

All these experiences during my month-long externship have

solidified my passion for aquatic veterinary medicine. I am inspired by the diversity of species I encountered and the unique challenges each presented. This externship has opened my eyes to the fascinating world of aquatic animals and the complex medical care they require. It has also deepened my appreciation for the importance of applying veterinary medicine across a wide range of species, each with its own unique needs.

I am excited to continue my journey in this field, with a strong desire to contribute to the health and well-being of aquatic species. This externship has confirmed my commitment to becoming a veterinarian who can think critically and adapt to the challenges of working with diverse species. Once again, I am deeply grateful to Dr. Don Abt, Dr. Alexa Delaune, Dr. Sean Perry, CVT Kristen Hales, and the American Association of Fish Veterinarians for this opportunity, which has been a pivotal moment in my career path.