

I have always enjoyed being outside and learning about the creatures that inhabit the world around me. The one type of creature that has always captured my fascination has been birds. The internship at the Mississippi Museum of Natural Science (MMNS) allowed me to get a new perspective of what an ornithologist does, as well as the research and work that occurs on the museum side of the field. I had previously volunteered at the museum on other occasions so my advisor, Mrs. Ann Taylor, introduced me to the ornithologist Nick Winstead. When I asked if I could have an internship with him over the summer, he happily agreed to help further my knowledge and interest in the field of ornithology.

MMNS was established in 1932 and is located in LeFleur's Bluff State Park. The museum's purpose is to expose and teach people about the wildlife, water systems, flora, and different habitats found around the state. To achieve this, educators and scientists are employed to teach and conduct research around the state. I specifically worked in two areas of the museum: with the ornithologist and with the aquarium staff. As the goal of the museum is education, I assisted Mr. Winstead with some of his studies and assisted the aquarium staff with dive shows and keeping the tanks clear of algae.

My internship focused primarily on Mr. Winstead since my career goal is in ornithology. Previously, I volunteered under him by going into the dry collections and updating the bird section by noting which birds were and were not present and organizing them by numerical order. During the internship I learned how important that task is since the bird dry collections had not been updated for nearly thirty years. As such, no new birds have been added to the collection in some time. With the update of the collection, it allowed Mr. Winstead to see what birds needed to be added to the collection. As such, my internship focused on adding to the dry collection.

The birds that we worked on were primarily donated by people who found them on the side of the road, flew into windows, caught for the purpose of collecting specimens, or died while in captivity. As regulation dictates, the bird must be put in a freezer for at least a month to ensure that any bugs are dead and to stop any decomposition. This led to another importance of my internship: some of the birds in the freezer had not been touched or sorted for over 15 years or more. If only for paperwork sake, the museum needed to know what birds needed and did not need to be preserved. For nearly two weeks, Mr. Winstead and I meticulously took bags of birds out of -20° freezer and sorted them into bags that would either be discarded or kept depending on the bird species, its physical state, and how many of its species were already in the collection. By the end, Mr. Winstead and I sorted 1,100 birds. Some of these birds included warblers, vultures, the American White Pelican, turkeys, a kingfisher, woodpeckers, owls, and hawks. A few birds that were sorted, like the Magnificent Frigatebird, were the first specimens of the state.

With the birds sorted, we selected some birds from the discard bag so we could practice making study mounts. Study mounts are different from a taxidermy specimen. A taxidermy mount is when the specimen is placed in a position that mimics what it would look like in real life. A study mount is the skin laid down with the wings tucked in so the morphology of the specimen can be easily observed. For this part I learned how to skin a bird by only making one cut in the chest. The neck, wings, and legs would be cut from the main body. The neck would be removed when the skull was being cleaned. Then all excess flesh would be removed to deter any insects or decomposition. For some of the birds that had to be preserved, tissue samples from the heart, liver, and breast muscle were taken for genetics. The sex of the bird was determined, along with its stomach content by opening the body cavity. The bird would then be cleaned of any excess blood, dried, stuffed with cotton, sewed up, and then wrapped in cotton to

dry. It took a week to dry smaller birds and nearly two weeks and for larger birds like owls and hawks. In all I completed thirteen birds: five Cedar Waxwings, 4 Northern Cardinals, 1 Mourning Dove, 1 Red-tailed Hawk, 1 Barred Owl, and 1 Common Loon. Of those, two were discarded, five were cataloged, and six were donated to education.

In the aquarium, I would get in tanks like the terrarium, the Mississippi Sound, the Mississippi channel, and a colder water system. In each tank I would clean the glass so the museum visitors could see the fish more clearly. In the sound and channel tank, I would occasionally feed the fish, with a museum staff explaining the fish behavior outside. The fish and crocodilians I dealt with included were alligators, catfish, alligator garr, a stingray, a moray eel, sturgeon, and paddlefish.

From this experience I learned how to prepare study mounts which are still used today by universities and museums. This skill set of preparing the specimens will assist me in my career plans as I will be able to prepare specimens easily and already have a foundation of the anatomy of birds. Some high points of the experience were being able to handle and see these birds up close and to be in the water and up close and personal with various fish and alligators. The few low points included how cold the water was in the sturgeon/paddlefish tank, nearly losing my sense of smell a few times with some of the birds, and dealing with birds that had a large amount of fat. Ultimately, this internship has shown me a career path for me. As I want to be an ornithologist, museum work is an option and so is working for the government either as a park ranger or a scientist employed for research.