St. Catherine’s Island is one of 13 barrier islands located off of the Georgia coast. It is located 35 miles south of Savannah, Georgia, between Ossabaw Island to the north and Blackbeard Island to the south. Since 1981, St. Catherine’s has been under the direction of the St. Catherine’s Island Foundation, and, as such, has been largely left in its natural state. The Foundation allows students of all levels, researchers, and education groups to use the island’s pristine state to study life’s processes. The island has a history of use long before the St. Catherine’s Island Foundation took control. Native American artifacts dating at least 5,000 years ago have been found on the island, providing an historical lineage long before any written history. The island’s first owner was English, and in fact the first and only Native American to receive a king’s grant was Mary Musgrove. Following Musgrove’s death, Button Gwinnett purchased the land. Gwinnett was one of Georgia’s three signers of the Declaration of Independence. After Gwinnett’s death, the island went into the hands of Tunis Campbell for a short time. After the Civil War, Campbell, the head of the local Freedman’s Bureau, and St. Catherine’s other inhabitants left the island. It was then that a Cuban gun smuggler known as “Captain Rodriguez” then purchased the island from a local Georgia family by the name of Waldburg. After the smuggler’s death, his widow sold the island to the Rauers family who then sold the island to Edward John Noble in 1943. It was with Noble that the island’s recent history began. Upon his death, as per his wishes, the island was left to the natural influences of time and nature under the direction of the Edward John Noble Foundation. In 1981, as environmental programs expanded, the St. Catherine’s Island Foundation, based locally in Georgia, was given ownership of the island. It is through this foundation that I was able to gain access to the island for my research this summer.

This summer was actually my second visit to St. Catherine’s. I had the pleasure of joining the Sewanee Island Ecology Program last summer (2015). The Island Ecology Program is a 5-week program during which 10 applicants enrolled in Sewanee are taken to St. Catherine’s to study the geology, forestry, invertebrate and vertebrate life both on land and in the water. These topics are broken into four sections taught by four different professors. A class precludes the program during the semester prior to arriving on St. Catherine’s. During this time, all of the necessary information is given by each of the four professors in their given topic. After much anticipation, the class meets on the dock to ferry to the island. This is the first glimpse of what life on St. Catherine’s is like: the only permanent residents on the island are Royce and Christa Hayes, and all workers ferry back and forth from the mainland each day. After a 10-minute boat ride, the island finally comes into view. Long, flat, and covered in trees; it isn’t much to the eye at first, but the mystery of the island encapsulates all first-time occupants. Students unload the boat and move into the tabby cabins that have been standing for at least 40 years. The
experience begins here. Sections last nine days with a free day on the ninth. Projects and papers are due the seventh and eighth day, respectively. During this time, I fell so in love with St. Catherine’s, I knew I would return. I spoke with Christa Hayes on several occasions, learned of the possibilities for return, and I jumped on the first available opportunity. A year of correspondence followed. Then finally the news came, I received my funding and would be returning to St. Catherine’s! I was ecstatic. I would ride the boat to that long, flat, green mystery at least one more time in my life. Only this time I would be returning as an intern. I would have more responsibility, but also more freedoms, with the opportunity to design and perform my very own study.

My work this summer followed the research of Brian Meyer, professor of geology at Georgia Southern University. His research on the changing beaches through St. Catherine’s history helped give rise to the idea for our study this year on sea level rise and its effects on coastal pollinator habitat. Observations made by Christa Hayes, one of the few permanent residences of St. Catherine’s were also integral to this summer’s research. Our research was truly Christa’s brainchild.

Our mission is to discover the response that dune plants and the plants on the hard marsh/island core interface will have to the rise in both tides and sea level. We also are curious how the vegetation response will alter the invertebrate populations that utilize these plants as nectar sources and host plants. Butterflies, as pollinators, play an important role in the integrity of these fragile ecological systems. For the past six years, Sewanee’s Island Ecology students have tracked vegetation changes on island dunes and hard marsh systems and have compiled a photographic collection of the vegetation identified in those habitats. This summer we looked at how changes in distributions due to sea level rise will affect pollinators, especially butterflies, which use these plants as a food sources and host plants for larvae. As well as surveying for butterfly activity, we created a virtual representation of the vegetation present this year at a location in the hard marsh. This was an important step in tracking the changes of not only the beach, but also the hard marsh as sea level changes. The work we have done will be built upon in future years in order to see trends in vegetation and pollinator changes.

The process of studying sea level rise must occur over multiple years. To that end, I have learned the value of building a study that can be easily repeated. The study we had the pleasure of designing covers 3 different habitat types, some up to 10 miles apart. Future researchers must have all pertinent information readily available, so cluttering any study with multiple different aspects of interest creates problems in future years. Designing a long-term study taught me organization and foresight that following a study developed by others would not. I value that opportunity and that learning and will take it with me in my future career.

Day-to-day life on St. Catherine’s is unreal. The term “Island Time” is certainly a founded term. Life moves more slowly when the hustle and bustle of city
life is removed. No matter how small Sewanee is, it is nothing compared to a 12 mile by 5 mile island with an average population of 25. Life is simple: drive to survey point avoiding the gators, gawk at the lemurs, watch the butterflies flutter by with a backdrop of the Atlantic Ocean. Once the work is done, there is a plethora of options still available: swim in the aforementioned Atlantic, meet the other interns for a meal, play a game of cards, movie nights. And the sunsets... rivaled in my mind only by those I’ve watched from the western face of the Southern Alps in New Zealand.

The isolation of the island allows one to explore one’s own mind and soul. The habitat is one of an extreme nature. The heat, the sun, the wind, the coastal storms; all this and more expands the limits anyone may have set for themselves. It was truly an eye-opening episode of my life that I am extremely grateful to have been able to experience.

I extend my warmest thanks to you, without whom this would have never been a possibility. I thoroughly enjoyed my summer, my internship, and the personal growth which came during the summer of 2016, truly and unforgettable experience.