

Internship with the St. Catherines Island Sea Turtle Conservation Program

The St Catherines Island Sea Turtle Program has an impressive three-pronged approach to sea turtle conservation: education, conservation, and research. The most hands-on aspect of the program is sea turtle nest protection on the beaches of St. Catherines Island with the goal of maximizing the number of healthy hatchlings to enter the ocean. Only about 1 in 1000 hatchlings that make it into the ocean survive to the age of sexual maturity (25-30 years old), so the goal is to increase the number of hatchlings in order to increase the number of sexually mature sea turtles in the ocean, creating a positive feedback system over time.

Along with the conservation work comes research, which includes keeping detailed data records of all sea turtle activity (non-nesting crawlways, nests, nest relocations, predation events, methods of nest protection, nest inventories, sea turtle strandings, necropsies) and submitting the data to a cooperative sea turtle database run by the Georgia Department of Natural Resources. The St Catherines Island Sea Turtle Program also participates in a sea turtle genetics project, which sequences DNA of a single eggshell from each clutch of eggs in order to determine which female laid the nest. With this data, researchers will be better able to track sea turtle life history, migration patterns, and nesting habits.

Finally, the education portion of the St Catherines Island Sea Turtle Program is aimed to broaden awareness of these endangered species and spark awareness, research and activism. This summer, the St Catherines Island Sea Turtle Program was involved in three major educational events (aside from

generally welcoming others to join us on our daily monitoring trips in hopes that they will learn about and form a love for sea turtles): hosting a 10-day sea turtle conservation course for undergraduates at Georgia Southern University, teaching a class for Sewanee's Island Ecology Program, and teaching about sea turtle nesting ecology at a boy scout convention.

I was truly involved in every aspect of the St Catherines Island Sea Turtle program. I was responsible for monitoring the beaches every day (usually getting out on the beaches before sunrise, although this depended on the tides) and looking for any sign of sea turtle activity, which is usually indicated by a sea turtle crawlway. After identifying the species of sea turtle that created the crawlway (on St Catherines Island, this is usually a loggerhead, although green and leatherback sea turtles occasionally nest on our beaches), I would determine whether or not the female laid a nest. If not, I would record the coordinates of the non-nesting site, whether it was above or below the high tide line, and any clues as to why she may have decided not to nest. If a nest was laid, I would locate the egg chamber using a shovel and/or probe, take one eggshell for DNA testing, and determine whether or not the current location of the nest would be safe from washovers and beach erosion until the date of emergence, which is approximately 56 days from the date of deposition. St Catherines beaches are extremely erosional due to its location on the Georgia coast, so the Georgia DNR allows us to relocate 80% of our sea turtle nests. If the original location was suitable for a successful nest, I would simply cover the nest with sand as the sea turtle had arranged it, place over it a stiff plastic screen to protect it from

predatory pigs and raccoons, number the nest, and mark it with a colored stake. If the nest needed to be relocated, I would carefully place the eggs into a bucket while counting them and move them to a more suitable habitat where I would dig an egg chamber comparable to that of the female sea turtle to place the eggs in. These would also be protected with a screen and marked with a stake. Once nests began hatching, I was responsible for checking nests for emergencies so that we could take an inventory of the nest. I was also responsible for reporting any marine vertebrate strandings on our beaches so that a necropsy could be performed to determine the cause of death. Finally, I was able to get hands-on teaching experience by assisting with both the Sewanee and Georgia Southern classes.

Being able to work hands-on in wildlife conservation was an extremely valuable experience. I learned data-recording skills and gained knowledge on wildlife conservation practice in a real setting. My work with the St. Catherines Island Sea Turtle Conservation Program this summer was an extremely rewarding reminder as to why I am an Ecology and Biodiversity major at Sewanee. It was amazing to be able to put my knowledge to active use in order to make a real difference in the recovery of an endangered species (I recently learned that the St Catherines Island Sea Turtle Program beat its record number of nests this summer!). I've been interested in conservation for quite a while now, and this experience was very affirming. While scientific research is extremely valuable in the natural sciences, I've learned that the most rewarding career path

for me will be one in which I am directly making a difference in the health of our ecosystems through a field such as wildlife conservation.