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Connecting Students to Nature: My AmeriCorps Cape Cod Journey

At the beginning of my AmeriCorps Cape Cod journey back in September, I was assigned to work with Joan Muller, the Education Coordinator from Waquoit Bay National Estuarine Research Reserve (WBNERR), and Nancy Church, a board member from the Friends of Mashpee National Wildlife Refuge. Together, we were tasked with developing an educational program about Ospreys using a live webcam on the WBNERR campus. The webcam is a collaboration between Friends of Mashpee National Wildlife Refuge, WBNERR, and Comcast

As a Person of Color, and Spanish being my first language, I noticed a struggle that no one could see. During a Pond Study at Lawrence School with Joan Muller, I conducted a shoreline survey around the pond. I noticed that the students who were not proficient in English or did not have English as their first language refrained from speaking up. This experience inspired me to create a citizen scientist project for English Language Development students (ELD) to help them feel more comfortable and confident in their abilities to participate.

Each year at Waqouit Bay, we welcome the arrival of Rachel and Carson every spring. They are our local and favorite Osprey pair to watch on the live webcam. Their names originate from Rachel Carson, an influential American marine biologist, nature writer, and conservationist who played a crucial role in the environmental movement. She is best known for her book "Silent Spring," published in 1962, which raised public awareness about the dangers of pesticides and their impact on the environment and human health. While Carson's work encompassed a wide range of environmental issues, her efforts in conservation also extended to ospreys, among other creatures.

In January, I reached out to Carmela Mayeski, a Learning Partnership Specialist for Falmouth Public Schools, for guidance on which schools to contact, teacher referrals, and student demographics. With her help, I connected with Christine Nicholson, the Head of the ELD Department in Falmouth, Melissa Crim an ELD teacher from Lawrence School, and Mary Beth Knox, an ELD teacher from Morse Pond.

In February, we coordinated a meeting with Joan Muller, Nancy Church, Jayne DiCandio (WBNERR's School and Interpretive Program Coordinator), and Alan F Poole, a well-known Osprey Biologist and author, to discuss ways to make this project interactive for the students. After learning that Ospreys migrated to the Cape from South America, I saw a connection between the students to their homelands through the sea hawk. Alan F Poole helped to create a structure of a citizen scientist project for the students to observe the Ospreys behavior and activity using a live webcam on a nest at WBNERR.

In March, before the arrival of the ospreys from South America. I presented to Melissa Crim and Mary Beth Knox ELD classrooms to prepare them for the project and provide some basic biology of Ospreys. The students from both classes were eager to learn more about Ospreys for the next couple of months and excited for their arrival in late March.

Both teachers dedicated time in their classes for the students to observe the ospreys and write down any observations, behaviors, or activities. In between, I revisited the schools to provide another presentation and to see what the students were observing and how they were doing. This presentation focused on the Adaptation and Behaviors of Ospreys; a continuation of the presentation given in March.

As a surprise to me, Mary Beth Knox students from Morse Pond created poems and drawings they wanted to share with me after my first visit.

Ryllar wrote "I am an Osprey. I have yellow eyes, giant wings, my bill is curved, and my tail is in my back. My height is 2 and a half feet. My wingspan is 5 and a half ft. I migrated from Cape Cod to Brazil when started in Cape Cod.

I eat fish, because I am a migratory bird I don't have a specific fish to eat.
I have a guard call, a scream call, an alarm call, and a solicitation call.

After I return from my migration [route from Brazil] my partner came back to the nest we had the last time but if he doesn't I would need to find another partner. During the courtship, when the birds pick a mate, the male calls to the female and flies over the nest carrying a fish or nest material to prove he is a strong flier and good provider. His sky dance may last ten minutes. If I like him I would let him land beside me".

In June, both classes joined me at WBNERR for a field day and a tour of the campus. With the help of WBNERR Park Interpreters Max Francke and Emily McBride, I facilitated activities such as the Life of Osprey, an interactive board game that highlights Osprey's different life stages, migration, and behavior. We also played a DDT Game, where students picked up popsicle sticks representing fish. Some of the fish had a dot that represented DDT, and this helped illustrate the food chain of Osprey. We looked at Rachel and Carson through binoculars and spotting scopes. This was the most exciting moment of the day because the students got to see the Osprey they were studying and witness them flying around campus.

Some of the most interesting observations from Morse Pond and Lawrence School students:

Morse Pond	Lawrence School
● Rachel and Carson building their nest from twigs ● Rachel is in the nest; Carson comes. Rachel leaves the nest and there are 3 speckled eggs; Carson sits on the eggs. ● Rachel is sitting on the babies; Carson is eating; Carson is chirping loudly; the babies are giving a little chirp.	● Live eating of a fish. ● Rachel incubates the eggs. ● 3 adults Ospreys hanging out on the nest. ● Witnessing the first hatchling after coming out of its shell. ● Rachel or Carson feeding all 3 of the hatchlings.

Overall, this project was a great success. It not only helped ELD students feel more comfortable participating in class, but it also provided a valuable learning experience for all the students involved. Through this project, they were able to connect with nature and learn about the migration patterns and behaviors of Ospreys. I am grateful for the opportunity to have worked on this project and for the support and guidance from all the individuals involved.