

Estates Elementary at Corkscrew Swamp Sanctuary

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Our Audubon *Wild Florida Adventure* began at Estates Elementary with the arrival of the rolling learning kits from Corkscrew Swamp Sanctuary. Brightly decorated duffle bags caught the students' eyes as the bags were delivered to the classrooms. They were eager to begin! Sets of reference, nature, and children's books were quickly divided among the five fifth grade and one Varying Exceptionalities classes. Teachers signed up to watch the CSS video and pretests were given to all students.

Students were fascinated with the video as they completed a worksheet and formulated questions for class discussion. After the video students chose, in a lottery fashion, a mammal, bird, reptile, and plant to study. Research took three weeks and was conducted during reading rotations and science class. Students presented their reports to the class and turned them in for a grade. Bulletin boards were constructed with students deciding on flora and fauna placement overseen by a group of "student scientists" chosen by their teacher.



Students completed worksheets as they toured the CSS guide book searching for answers to habitat and flora / fauna questions. They also worked on reading maps and understanding the role of the Audubon Society and CSS in preserving habitats and nature in Collier County. We watched a video on alligators purchased at CSS and completed many activities and lessons designed to provide a deep understanding of the complex ecosystem that is

our Corkscrew Swamp Sanctuary. Students became more excited and knowledgeable with each passing day as we delved deeper and deeper into the mysteries of the swamp and its interwoven species. The "*Gator Hole Graphics*" and "*Then There Were None*" activities were especially enlightening for the students!

The day of the trip dawned bright and clear! Anticipation ran high as students donned hats and sunscreen for their day of adventure. Journals and pencils in hand, almost 130 students from six classes excitedly boarded buses over a three day period. They were all hoping to see their animals and plants and observe the sanctuary interactions in person.

After breaking into small groups, and meeting their guides, groups were lead in different directions. The Pine Flatwoods were very interesting. A controlled burn had occurred allowing the habitat to display a more natural appearance and to be healthier. Adaptations to fire were discussed, like the waxy surface on saw palmettos and sabal palms that allow them to burn rapidly without causing damage to the meristem. Pine trees loose their needles in a flash in a fire, but pine cones spread seed on the newly cleared ground. New needles are pushed forth by the pines in the spring. Many species of birds and mammals, including the endangered Florida Panther and the Florida Black Bear, make their homes in the forest. Sabal Palms and Saw Palmettos were compared and contrasted. Students now know the difference!



Farther down the boardwalk appeared. Students were in awe upon observing the difference between the unburned, brown grasses and the

healthy, green grasses that re-grew in the burned area of the Wet Prairie. Students excitedly observed their plants, like the Blue Iris, and their animals, like the Green Anole, along the boardwalk in this grass dominated ecosystem.

Pond Cypress and Bald Cypress were observed as we walked deeper into the sanctuary. Students were finally able to understand the differences between the two species. Pond Cypress trees were observed first in the drier areas. They keep their needles longer in the fall and push forth new needles sooner in the spring than their counterparts, the Bald Cypress, deeper in the swamp. Bald Cypress are taller and provide a home for nesting Wood Storks, the CSS signature species, in wetter sections of the Cypress Swamp.



Life and death played out right in front of numerous groups as they watched Water Moccasins stalk and catch mosquito fish. Herons, egrets, and cormorants caught and swallowed fish and washed them down with water! Groups of students observed the true meaning of survival of the fittest as a mother duck tried to keep her young away from a large alligator. The alligator kept hiding under the floating rafts of water lettuce and sneaking up on its prey. Group after group observed this living food chain in action and cheered as the mother duck and her two ducklings survived time after time! Occasionally the alligator would try to catch a heron, and they did observe it catch fish several times. Most students were able to accurately describe how animals stalk their prey after these observations at CSS.

Many birds were studied while on this wonderful trip. Students observed the soaring, twisting ballet of the Swallowtail Kite, the stretched-out, slow,

soaring glide of the Wood Stork, and the wing-pulse dip of the woodpecker. Red-shouldered hawks were seen in trees and in flight. They began to distinguish their sharp cries from the other birds and marveled at the nest observed through the spotting scope. Grey Catbirds, Cardinals, Mockingbirds, Flycatchers, Woodpeckers, and many others became friends to the students. Numerous water birds stalked their prey within sight of the classes. We even discussed the importance of vultures in the ecosystem!



Students could see a clear delineation between habitats as they moved into the Wet Prairie on the way back from the Cypress Swamp. Grasses took over and they remarked on the wide vista that runs along between one habitat and another. One group observed deer right next to the boardwalk. Students were so still they almost didn't breathe! The deer appeared unconcerned and grazed in their usual way. These students will never forget the beauty and wonder of this experience with nature in her own setting!

After observing animals and plants in their own settings students were treated, up close and personal, to numerous anatomical parts of various species. They were able to examine skulls, scat, wings, and skin from species as diverse as the Wood Stork, River Otter, Raccoon, Rattlesnake, Black Racer, Alligator, Snowy Egret, and other important animals. It's one thing to study at school how a Wood Stork feeds, but quite another to hold the bill and actually see how it grasps its prey. They also were amazed that the alligator is 6 inches long shortly after birth and grows one foot a year, thereby allowing biologists to estimate the age of alligators in the wild.



Most students and teachers describe the CSS trip as the best field trip they have ever taken. The diversity of flora and fauna, combined with the knowledge of our guides and our preparations for the trip, contributed to an awesome day of learning and discovery that can only occur in the field. Trips like this help launch students into a lifelong love of nature and a deep understanding of ecosystems and the environment. Thank you so much for providing this outstanding program to our fifth graders at Estates Elementary School. You really made a difference in their lives!