

Sewee Association

Supporting our National Forest and Wildlife Refuges



Education Updates...This is no ordinary science class!!

July 2014

A Year of Launching New Programs and Partnerships (Not to mention our new name and logo!)

Dear Supporters,

With a new school year approaching it is our pleasure to share with you some of the experiences your support makes possible for kids along the South Carolina coast.

It is also our pleasure to share with you our new name and logo (right). By now we hope you are getting accustomed to our new look, and that you agree this new look better reflects the full geographic region we serve and the growing scope of our work. We are grateful to you for the success and growth your support has made possible. We also assure you that as our organization grows our commitment to the quality educational programs you have so generously supported through the years remains steadfast.

We began the 2013-2014 school year with an ambitious agenda including expanding our hands-on field studies opportunities, creating new lessons that emphasize inquiry based learning, and giving kids a sense of ownership of the ecosystems they are learning about through service projects. You will see the results in the following highlights.

One of the most exciting enhancements to our curricula this year was the addition of a field studies trip to Bulls Island for over 200 of our Earth Stewards students (page 2). This trip was made possible through our partnership with Coastal Expedition. We offer our most sincere thanks to Chris Crolley and Coastal Expeditions for the generous support.

Through all the lessons we never lose sight of the fact that one of the most important things we do is simply giving kids the opportunity to experience the wonders of our natural world.

Gratefully,

*Grace Lynch Gasper
Executive Director*

*Allie Kreutzer
Education Coordinator*



Boys from Plantersville Elementary in Georgetown County learn about horseshoe crabs and red knots on Bulls Island in Cape Romain National Wildlife Refuge. Red knots are small shorebirds that annually migrate almost 10,000 miles from Tierra del Fuego, Argentina (just a stone's throw from Antarctica) to their arctic breeding grounds. They depend on horseshoe crab eggs for food to fuel these flights, and because of our unique tidal range Cape Romain is one of only a couple of places in North America where they can rest and fuel up for their long journey!

Discovering Bulls Island

Our *Earth Stewards* students spend ten weeks studying and exploring the ecosystems of our coastal national forest and wildlife refuges. They see science at work in the real world as they assess water quality and habitat diversity and learn about human impacts on our coastal ecosystems. Hands-on field experience is the heart of our program and giving students the opportunity to explore the diverse ecosystems of an undeveloped barrier island gives new dimension to the educational experience we offer.

We journey through five ecosystems found on the island; estuary, high marsh, maritime forest, freshwater wetland, and beach. Each student is responsible for doing some homework to become our “expert” on one plant or animal found in these ecosystems. Student then teach each other about their species.



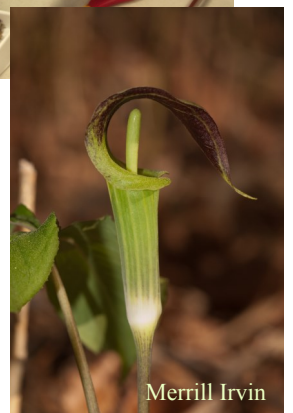
We are delighted Charleston Collegiate will be our newest Earth Stewards school at E.F. Hollings ACE Basin National Wildlife Refuge next year. This year they visited Bulls Island and found this “awesome” ray washed up on the beach.

Carnivorous plants and Carolina Bays in the Francis Marion National Forest.

Carolina Bays are elliptical wetland depressions found only in the Southeast coastal plain. They are characterized by the plant life within them (not the continued presence of standing water as the name implies), and are definitely one of the most unusual ecosystems we have to explore in the Francis Marion National Forest.

Often you find carnivorous plants living on the edges of these “bays”. Because of the lack of nutrients in the soil these plants use the insects they catch for nutrients.

Twelve species of carnivorous plants call the Forest home, and twenty-five of South Carolina’s last remaining 200 Carolina Bays can be found on the Forest. This is a special place to explore!



Merrill Irvin



Left: Aerial view of a Carolina Bay.

Above: Students collect data from a Carolina Bay on the Francis Marion National Forest.

Who knew plants could be so interesting! (above right) This 4th grader is dissecting one leaf from a pitcher plant (pictured above), a carnivorous plant that we found out in a Carolina Bay within Francis Marion National Forest, to find out what it’s been eating!

It's all about asking questions and discovering the answers.

Going on a hike while someone lectures at you is un-engaging and dare we say boring, so in our forest ecology lesson kids work in small groups and use a dichotomous key to learn to identify plants and understand their different characteristics. By working on their own they're gaining valuable critical thinking and logic skills while also learning to appreciate our plant diversity!

Our goal is for all of our programs to be investigation style lessons that teach our students how scientists approach real world problem solving. Students respond enthusiastically to this approach, and even get some friendly competition going between Earth Stewards schools to see who can identify more plant species or the most unusual seed dispersal technique. The incredible ecosystems of our national forest and wildlife refuges provide the inspiration to discover!



We take the same discovery oriented approach to studying the salt marsh. We love to get down and dirty in the pluff mud as we search for all of the different components that make up our salt marsh ecosystem! The 2nd grader above found it all... Decomposers, producers, primary consumers, and top level consumers!



Even though it was 35 degrees and raining these girls were enthusiastically working through their dichotomous keys to figure out the different types of producers (plants) on Waccamaw National Wildlife Refuge.



It was an exciting moment for this student when he discovered you could actually see baby salamanders growing inside a mass of eggs he collected from our pond at the Waccamaw NWR Environmental Education Center. Most elementary schools don't have microscopes so this is a great chance for students to learn to use a new tool and discover new parts of nature they've never had a chance to see!

Pulling it all together

Plantersville girls showing off their model food web (right). Throughout the *Earth Stewards* programs we take pictures of all the plants and animals we discover and investigate in the field. Then, at the end of the year we sum up our experience by drawing a realistic food web and tracing the energy through the ecosystem. Modeling and the transfer of energy through an ecosystem are both major components of the new (and current) science standards, so this is a great exercise we hope can help them on their PASS testing!



Down and Dirty...

Our approach to learning is hands-on, and our salt marshes are some of our favorite places to dig in. The salt marsh is the second most productive ecosystem on earth. Students spend the year learning about the many benefits it provides for us like water filtration, protection from storms and flooding, habitat for commercially and ecologically important fish and shellfish species, and erosion prevention. Many of our students took the opportunity to give back to the treasured ecosystems and organisms they learned about through service projects. CREECS (Cape Romain Environmental Education Charter School) students (below) helped build a living shoreline in their community by building an oyster reef, and also restoring spartina grass with plants they started from seed. Waccamaw Intermediate chose a great project to help butterflies.



These experiences for 14,000 kids along the South Carolina Coast are possible only through your support.

Thank you!

Contact us at sewee.association@earthlink.net
or 843-697-7535 for more information



Students from CREECS (above and left) participated in building an oyster reef and planting spartina grass in an area of ailing salt marsh.

Waccamaw Intermediate in Georgetown has a fantastic habitat garden so we took advantage and learned about the amazing migration of monarch butterflies. Then students enhanced the garden with a monarch butterfly “Waystation”. The “Waystation” will provide nourishment for monarchs on their annual migration, as well as other butterflies. Right: Students care for seedling plants that will be part of the monarch butterfly “Waystation” in their habitat garden.



Georgetown County students from Tara Hall take to the water to learn fish sampling techniques as part of their “Science Summer Camp” studies of salt marsh and freshwater ecosystems.

Sewee Association

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