



# Friends of Coastal South Carolina

## Environmental Education: Program Offerings & Descriptions

Supporting our National Forest and Wildlife Refuges  
Founded 1996 as the SEWEE Association

*The following list represents the core programs we offer in our service areas of ACE Basin (ACE), Cape Romain (CRNWR), and Waccamaw National Wildlife Refuge (WNWR) and the Francis Marion National Forest (FMNF). If you have specific topics, environmental issues, species, or projects we are happy to design a program to meet your interests and needs. We are always looking for new ways to get students outdoors and involved in their environments! Although most of our programs are designed for lower and upper elementary students, they CAN be adapted for higher grade levels. **As a service to our communities and our national forest and wildlife refuges, our programs are offered at no charge. Schools are only responsible for transportation and lunch costs.** For scheduling and other questions please email us at [educator@sccoastalfriends.org](mailto:educator@sccoastalfriends.org) or call us at **843-928-3368**.*

### The Earth Stewards Program

The Earth Stewards program is an eight to ten lesson science and conservation learning program for fifth graders. The program focuses on using the ecosystems of our national forest and wildlife refuges to reinforce students learning of their science standards. For almost 20 years our Earth Stewards program has been the cornerstone of our environmental education efforts. We believe this in-depth investigation program is one of our most effective educational tools. This program is a combination of field investigations on the refuges and forest, in class lessons conducted at the participating school, and a service learning project. Twelve schools in Charleston, Berkeley, and Georgetown Counties currently participate in this program. Please contact us for more information about participation requirement and field studies and in class lesson options

### Field Studies Programs

These programs provide hands-on, immersive learning experiences out on our national forest and wildlife refuges. Many times multiple programs can be combined to provide a full-day excursion.

#### **Exploring Bulls Island in Cape Romain National Wildlife Refuge:**

Cape Romain National Wildlife Refuge is a 66,000-acre estuary including 33,000-acres of designated wilderness area. Bulls Island is one of the most popular destinations in the refuge. This undeveloped barrier island contains saltmarsh, maritime forest, freshwater wetlands and beach ecosystems to explore. Friends of Coastal South Carolina conducts field studies lessons on Bulls Island through the Earth Stewards program (described above) and other programs by special arrangement.

*\*\*Bulls Island is accessible only by boat. Coastal Expeditions provides ferry service to the island and we will be happy to help you coordinate plans for your trip with them. Although there is no fee for our program **there is a fee for boat transportation**.*

#### **Carolina Bays (FMNF)**

Carolina Bays are an endangered habitat within the Francis Marion National Forest and happen to home to four rare species of carnivorous plants. Students will visit a Carolina Bay and get a more up close look at pitcher plants. If time allows, students can come back to the Sewee Visitor Center to dissect a pitcher plant and find out what it's been eating! (The dissection is only available from late spring to early fall when the plants have leaves that are actively catching insects).

### **Forest Ecology (ACE, FMNF, WNWR)**

Taught in the field on a trail or other field study site, students learn to identify local trees and plants through the use of a dichotomous key. Adaptations and relationships between living things are discussed.

### **Freshwater/Pond Ecology (ACE, FMNF, WNWR)**

Local freshwater wetlands and their macroinvertebrate inhabitants are the focus of this class. Using a dichotomous key, students will identify macroinvertebrates that they catch using dip nets. Students will also compare and contrast between fresh and salt water.

### **Salt Marsh Ecology (FMNF)**

This is a field study lesson taught at the Sewee Shelling Trail in the Francis Marion National Forest. The Sewee Shell Ring Trail is only about ten minutes past the Sewee Visitor and Environmental Education Center and provides a great opportunity to experience multiple ecosystems in one trip.

To start, students can learn about the many adaptations that plants have for living near the salt water as we hike through the maritime forest on our way out to the marsh. Then, they will use scientific estimation techniques and upper level math skills to estimate the number of fiddler crabs in Cape Romain National Wildlife Refuge using transects.

A social studies add-on focuses on the native people of coastal South Carolina, their history, and how they shaped the Shelling Trail.

## **Environmental Education Center Programs**

These programs are taught at the Sewee Visitor and Environmental Education Center (SVC: 5821 US-17, Awendaw) and/or the Waccamaw National Wildlife Refuge Visitor and Environmental Education Center (WEEC: 21424 N Fraser St, Georgetown). Each of these lessons will last between 45-60 minutes. Depending on your timetable and the size of your group, you can pick any two to three of these programs for your students' visit. Several of these lesson can also be taught at the ACE Basin (8675 Willtown Road, Hollywood), please note that ACE Basin does not have a visitor center and the lesson may be taught outdoors.

### **Birding and Migration (SVC, WEEC, ACE)**

Students will learn various aspects of birding, bird identification, and the importance of protected lands for migratory birds. Activities can include: learning to use binoculars, completing a bird scavenger hunt, using clues to match feathers to their bird species, and a migration hopscotch game.

### **Black Bears and Refuge Management (SVC, WEEC, ACE)**

Many people don't realize that coastal areas of South Carolina are home to black bear populations. Students will learn about South Carolina's largest mammal and the natural and human-made dangers that bears face. Students will then play a game to demonstrate the hazards posed to animals and why a continuous refuge is more protective to animals, like the black bear, than a fragmented wildlife refuge.

### **Carbon Footprint, Conservation, and Recycling (SVC, WEEC)**

Climate change, global warming, and human impacts on the environment is the focus of this class. Students will learn how to reduce their footprint and why it is important to do so. Students will learn all about how their actions can both positively and negatively affect the environment. We'll talk about natural resources, conserving energy and water, turning our yards into good habitat, packing a waste-free lunch and other ways that we can help protect our local ecosystems. Then, we'll turn the focus to recycling as students play a relay race to learn about how to properly recycle and why reducing and recycling is so important.



### **Ecosystems (SVC, WEEC)**

Through a self or teacher-guided scavenger hunt style walk through our exhibit hall, students get a chance to familiarize themselves with the six major ecosystems, including plants and animals, of coastal South Carolina.

### **Endangered Species (SVC, WEEC)/Red Wolves (SVC)**

In addition to learning about local endangered species, this class explores the human impacts on such species and the role we play in their decline and recovery. Red wolves are used as an example and students can observe the red wolves at the Sewee Visitor Center. Students will identify problems and threats to species and learn how losing a species affects an ecosystem.

### **Food Web (SVC, WEEC)**

Students will learn how energy transfers through the food web. Students will explore our exhibit hall to learn about the about our local ecosystem's and the animals that dwell there. They will then use their observations to choose a South Carolina ecosystem and create their own food web posters to take back to school to present and show off!

### **Mammal Skulls(SVC, WEEC, ACE)**

Students will use a dichotomous key and actual skulls to identify local mammals. Focusing on the teeth will lead into discussion on each animal's diet. Science skills are built through using measurements and a dichotomous key as well as making observations.

### **Orienteering(SVC, WEEC, ACE)**

Students are taught how to use a compass along with leave no trace ethics and apply what they learn as they traverse compass course.

### **Prescribed Burning (SVC, WEEC)**

Prescribed burning is an essential technique to properly manage long leaf pine forests in the Francis Marion National Forest available (SVC), a fire ranger of the Francis Marion will join us to educate students about his job and the tools he uses to properly execute prescribed burns in the forest.

### **Red Cockaded Woodpecker (SVC, WEEC, ACE)**

The Francis Marion National Forest is home to the second largest population of this endangered species. Students will investigate what factors create suitable habitat for the endangered Red Cockaded Woodpecker (RCW). They will then learn the reasons for this bird's decline and will use a game to model the difficulties RCW's have surviving in the wild.

### **Reptiles(SVC, WEEC)**

This hands-on class uses actual animals to teach students to identify the characteristics of cold-blooded animals and the adaptations of reptiles. There is a focus on comparing and contrasting various types of reptiles, and looking at their unique adaptations.

### **Sea Turtles of Cape Romain National Wildlife Refuge (SVC)**

The beaches of Cape Romain National Wildlife Refuge makeup the largest loggerhead sea turtle nesting ground north of Florida! Students will play a game showcasing the many threats facing baby loggerheads, learn what biologists and volunteers on the refuge do to protect this threatened species, and make a special Loggerhead craft to help them remember how they can help loggerhead sea turtles!

### **Shorebirds (SVC)**

Learn about the beautiful shorebirds that run along the beaches of Cape Romain National Wildlife Refuge and their unique physical and behavioral adaptations that help them survive in their habitat. Students will experience the long, difficult journey of migrating from continent to continent in search of food and a safe haven!



### **Swallow Tailed Kites (SVC, WEEC, ACE)**

The Waccamaw National Wildlife Refuge has South Carolina's highest density of nesting Swallow-tailed Kites, a graceful and unusually social raptor. Kites, whose nesting range has dwindled from 21 states to seven, are considered endangered in South Carolina. Students will learn about these amazing raptors; their unique physical and behavioral adaptations that help them survive in their habitat. Students will also experience the long, difficult journey of migrating from continent to continent in search of food and a safe haven!

### **Tracks (SVC, WEEC, ACE)**

Become a nature detective by using clues to identify which animals live near you. Learn to identify the tracks of common animals found in the Francis Marion National Forest and Cape Romain National Wildlife Refuge and how their feet help them survive in their habitat. Students will use casts to make tracks in the sand and paint these casts to take home.

### **Wetlands Model (SVC, WEEC, ACE)**

This in class lesson incorporates a wet experiment with desk models to demonstrate the functions of wetlands such as filtration and flood prevention.

## Service Learning

We love when students give back the environments they are studying and are always up for helping classes with service learning projects. If you have a project idea, let us know what it is... we'd love to help brainstorm creative ways to make it happen! Here are some examples of past projects:

**Habitat Enhancement/Restoration:** Pick a species or ecosystem that your class is concerned about; research what can be done to help that species. Past projects have included: bat boxes, bird houses, oyster reef restoration, planting native plants.

**Teach others about our wildlife:** Students come to the Forest/Refuge to learn about some of the native and invasive flora/fauna of the Lowcountry. Then they can work in groups to create interesting and informative signs to hang up (in school yard, on interpretive trails, etc.) teaching other students interesting facts or important FYIs (e.g. Don't touch the poison Ivy!) about the ecosystems.

**Fund raising projects:** A lot of times the best way to help is to donate money to a group who has the same interests as you. Past projects include – selling "Turtle Bags" (reusable cloth shopping bags with sea turtle graphics) with a note inside educating consumers about the dangers of plastic bags in our waters, and the importance of making sure your trash ends up in the right place; not in a sea turtle's stomach.

**Make your schoolyard in to a great habitat:** This usually includes things like building and installing bluebird boxes/bird feeders, native plants that attract pollinators, water features, etc. around your campus or in other public places to create habitat for birds. Often we start this as a research project, having students investigate what they can do to make a yard more hospitable habitat.

## Contact

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