Audubon Newhall Preserve Trail Guide



The Audubon Newhall Preserve was established in 1965 as the Island Wildlife Preserve when Caroline "Beany" Newhall recognized the need to conserve woodlands on this rapidly developing island. She persuaded Charles Fraser of the Sea Pines Company to deed 50 acres of land for a nature preserve. Over the years, Beany devoted

endless hours to saving plants from the paths of developers and transplanting them into this protected environment. In 1976, she deeded the Preserve to Hilton Head Audubon to ensure its ongoing maintenance. In 1993, the pond was restored, recreating an integral focal point. Thanks to the foresight and generosity of Beany

Newhall, this woodland will forever remain a sanctuary for all to enjoy.

In 2016, Hurricane Matthew severely damaged the Preserve. In the aftermath, an army of volunteers, the local Rotary, Sea Pines CSA, and the SC State Forestry Commission, all pitched in to restore the Preserve. More than 300 downed trees were removed from the perimeter fuelbreak and nearly 500 native trees and shrubs were planted to restore the forest. Trail signage was restored and replaced. Memorial benches were donated or replaced. Milled asphalt has been donated by Sea Pines CSA to improve the parking lot and widen the roadway from Palmetto Bay Road. Pollinator gardens have been prepared around the parking lot and at the back of Audubon Pond. In short, the Audubon Newhall Preserve has "bounced back" better than ever!

Welcome to Audubon Newhall Preserve

We hope that you will find this sanctuary to be a source of enjoyment, inspiration and education. By pointing out some of the special ecosystems that exist in this Preserve, as well as some of the features you will see along the trails, this booklet can serve as your nature guide.

If you are just getting acquainted with the Preserve, we suggest that you walk along the Newhall Trail from the parking area to the plaque honoring the Preserve's founder, take a look at the wetland area (or pocosin) to your right, and then walk counter-clockwise around the pond. All of the trees and plants that are referred to have been labeled by Hilton Head Audubon volunteers. Please be aware there are alligators near the ponds and you are cautioned to maintain a safe distance. Be sure to stay on the marked trails at all times. Because of our deep concern about the danger of fire,

SMOKING IS NOT PERMITTED ANYWHERE IN THE PRESERVE.

Carolina Scrub Community Area 1

The Newhall Trail from the parking lot to the pond takes you through a woodland community dominated by pines and saw palmetto. Beaufort and Jasper counties are the northern-most limit of this rare community. A number of ridges and shallow depressions, the remains of ancient sand dunes, ripple the ground which allows four species of pine to coexist. Longleaf pine and loblolly are found on the

ridges; slash and pond pine in the depressions. Below their open, needled canopy is a sub-canopy of horse sugar and wax myrtle. Saw palmetto and fetterbush dominate the shrub layers, with inkberry and blueberry as subdominants. Common herbaceous plants are dewberry, blue mistflower, obedient plant, golden aster, deer-tongue, beard-tongue, goldenrod, false-indigo, beggars-tick, and American beauty berry.

Historically, most of Hilton Head Island once resembled this scene. However, these communities used to be more open, Savannah-like, and were maintained by periodic fire. Many Carolina scrub species require open areas and may decline or disappear if trees become too dense. Where fires are suppressed, as in this case here because the Preserve is surrounded by development, there is a dominance of shrubs and, unfortunately, a gradual disappearing of the flowering herbaceous plants.

As you walk along the trail, watch for the following plants and trees that are specifically characteristic of the Carolina scrub.

Saw Palmetto (Serenoa repens) often dominates the shrub layer, forming thickets in the sandy soil beneath the pines. The leafstalks supporting the fanlike fronds are armed with sharp, recurved spines, which resemble the teeth of a saw. Native Americans used the seeds as a sedative to improve digestion, or to treat respiratory infections, although we don't recommend trying it yourself! They collected the



Saw palmetto

growth bud
at the base of
the stalk to eat
as a vegetable
— the gourmet's delectable heart of
palm. Today
saw palmetto
Is used
as an alternative medicine in the
treatment of
enlarged pros-

tate glands. The cream-colored flowers, appearing in June, produce a delicious honey, and the blue fruits are relished by birds, raccoons and squirrels. The spiny stalks protect small mammals, reptiles and birds. The saw palmetto grows to about 6' high and should not be confused with the taller state tree of South Carolina, the cabbage palm (*Sabal palmetto*).

Fetterbush (Lyonia lucida) Early explorers and hunters had such difficulty penetrating the tangled shrub growth that they named this plant species fetterbush. It grows abundantly at Newhall.



Fetterbush

A broad-leaved evergreen member of the heath family, the fetterbush can be recognized by its leathery, toothless leaves. In April and May, its branches are festooned with lovely white-to-pink urn-shaped blossoms. The plant grows 6-10' high and prefers shade and moist soil.

Bracken Fern (Pteridium aquilinum) Forming knee-deep thickets of summer greenery, bracken fern, can be identified by the triangular leaflets on its ridged branching stalk. Bracken fern makes its home in poor soil environments, such as burnt woods, sandy ridges and old fields (hence its nickname "pasture brake"). The plant thrives in acidic pine needles and in drier ground than that occupied by the other ferns found in the wetlands of the Preserve. In winter, the dead, strawcolored fronds help to restore



to the forest floor. In the spring, deer graze on the tender leaflets. Native Americans and early settlers enjoyed eating the fresh, unfurling fronds called fiddleheads. The cinnamon fern, named for the fertile leaf that

nitrogen humus

Bracken fern

emerges from the center of the plant, can also be found along the trail.

The Wetlands: Pocosin, Pond, Pine **Flatwoods** Areas 2, 3, 4

Wetlands provide spawning and nursery areas for aquatic insects and fish and a other plant and animal wildlife. They purify water and store floodwaters. More than half of the nation's original wetlands have been destroyed, and only 40 million acres remain of the once vast swampland forests of the southeast. The destruction of this natural resource has led to irreparably damaged water quality and fisheries and has led to declining populations of migratory birds and other wildlife. The Audubon Newhall Preserve contains three distinct kinds of wetlands in close proximity to each other, thus providing an excellent opportunity to study differing wetland ecosystems. The ecologists who specialize in wetlands identification take into account the varieties of plant life, type of soil and water table to determine the presence of a wetland.

The Pocosin (Area 2) lies to the right of the main trail as it approaches the pond. This is a small wetland that, prior to modern commercial development, was a characteristic feature of southern barrier islands. Pocosin is a Native American word for bog. Thousands of years ago, such damp depressions were formed as low troughs found between sand dunes. During rainy months, the bogs collect rainwater and the standing water provides breeding grounds for aquatic insects and frogs, while intruding upland grasses and shrubs are flooded out. During dry periods, water levels fall,



Sphagnum moss

percolating into the organic soils, and all animal life becomes concentrated in the shrinking wet spaces.

On the floor of the Pocosin can be found maiden cane, sawgrass and mats of golden-green sphagnum moss (which can store 20

times its own weight

in moisture and is the main source of peat moss). The trees that colonize the center of the bog are persimmon. Their fruits are enjoyed by birds, raccoons and humans. Virginia chain fern (identified by its purple stem) and broom sedge populate the moist edges.

The Pond (Area 3) In order to create a habitat for a richer, more diverse plant and wildlife population, a



depression in the center of the Preserve was excavated in 1965 to create a pond. In 1993, the pond had become choked with invasive grasses, but was renovated into the open water you see today. It was excavated to a depth of 14' to prevent the overgrowth of aquatic vegetation and the sand bottom and banks were lined

Virginia chainfern

with 12" of organic soil to minimize drainage during periods of drought. Five shelves were constructed around the edge and planted with a variety of native aquatic plants, which support life at the bottom of the food chain and provide cover for wildlife. An aeration system was added to provide oxygen and improve water circulation. Relying entirely on nature, new animal life has come to the pond. As various insects lay their eggs on the surface, dragonflies and frogs come to feast on the larvae. Birds have brought fish eggs on their feet, stocking the pond with bream and the tiny mosquito fish. Yellow-bellied slider turtles sun on the banks or cool off in the water. Alligators come and go.

More than 50 species of plants have been identified in and around the edges of the pond. As you try to spot them from the viewing platform, watch for the zig-zag trails of swimming whirligig beetles, water boatmen and dragonflies that patrol the airways above. If you study the earth around the pond, you may discover tracks commonly left by raccoons and deer who visit the pond to drink, hunt or forage, mostly at night.

The Pine Flatwoods Area 4

The third type of wetland in the Preserve is located south of the trail that rings the pond. It differs greatly from the wetter Pocosin and pond in that pine trees are its dominating feature. Water often covers the ground in this low-level basin during the rainy months and is never very far beneath the surface. Notice that the saw

palmetto, so prevalent in the pine/saw palmetto flatwoods is not present here — another sign that this is a wetland. Some 8,000 years ago, this broad oblong depression was probably located between two sand dunes. Its open forest floor, covered with pine needles and surrounded by the delicate tracery of ferns and columns of pine trees rising to form a green canopy overhead, makes this pine flatwoods one of the loveliest places in the Preserve.



Yellow-bellied Slider Turtle

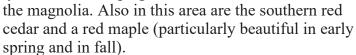


The Pond Trail Area 5

On the trail around the pond, you will find a magnificent stand of native hardwood trees, some planted by the Preserve's founder, but all indigenous to the area. Look for the impressive southern magnolia and a variety of hollies: yaupon, American, Savannah. Don't miss

Rusty lyonia

the state endangered rusty lyonia crowded up against



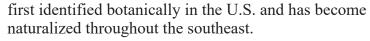
At the end of the pond is the delicately branched bald cypress, which sheds its needles and looks dead in winter. Still farther along the trail, you will come to a water oak decorated with mistletoe on its to branches. Sweet gum trees, such as the lovely, large one with its star-shaped leaves and prickly, round seed capsules, were often used by American Indians



Yaupon holly

who would clean their teeth by chewing on its green twigs. Several sassafras trees, remarkable for having leaves in three shapes on the same tree, and the sweet gum tree tower over a bed of deertongue, a plant once used to add a vanilla flavor to smoking tobacco.

Toward the end of the trail around the pond, look for the Cherokee rose, forming a large shrub near the waterline. Although a native of China, this rose was



Hardwoods, such as the live and water oaks, sweet gum, and maples, are examples of some of the trees that, in the absence of fire, will eventually take over the Carolina scrub community.

The Three Other Trails Areas 6, 7, 8

Take time to explore the three additional trails that have been cleared in the Preserve: South Woods, North Woods and Branch-Wood Trails. In the spring, the North Woods Trail glows from the yellow flowers of the horse sugar trees and the Branch-Wood Trail is resplendent with pink and white fetterbush blooms.

We hope that your appreciation of these trails will be enhanced by what you have learned about this Lowcountry ecosystem and that you will discover the peace and tranquility that can be found by taking a quiet walk in the Preserve. We have no doubt that you will share the feeling expressed on the plaque that was dedicated in 1994 to Beany Newhall:

She walked softly, but the imprint she left upon the Island will benefit all for generations to come. We are eternally grateful for her endowment of this Preserve.

Visit our website for membership information, trips and our conservation efforts. www.hiltonheadaudubon.org

Tax-deductible contributions to support the maintenance of the Audubon Newhall Preserve are greatly appreciated. You may donate online at:

www.hiltonheadaudubon.org

or send in a check to:

Hilton Head Audubon, P.O. Box 6185, Hilton Head Island, SC 29938

Contributions may be left in the money post located at the entrance of the Newhall Trail near the parking lot.

Listed below are some of the birds commonly found at the Preserve.

Pigeons & Doves	<u>Flycatchers</u>	<u>Wrens</u>	<u>Blackbirds</u>
Mourning Dove	Eastern Wood-Pewee	House Wren	Red-winged Blackbird
<u>Hummingbirds</u>	Eastern Phoebe	Carolina Wren	Boat-tailed Grackle
Ruby-throated Hummingbird	Great Crested Flycatcher	Mockingbirds & allies	Wood-Warblers
<u>Herons</u>	Vireos	Gray Catbird	Black-and-white Warbler
Great Blue Heron	White-eyed Vireo	Brown Thrasher	Northern Parula
Vultures & Hawks	Red-eyed Vireo	Northern Mockingbird	Palm Warbler
Black Vulture	Jays, Crows	<u>Thrushes</u>	Pine Warbler
Turkey Vulture	Blue Jay	Eastern Bluebird	Yellow-rumped Warbler
Osprey	American Crow	Hermit Thrush	Yellow-throated Warbler
Red-tailed Hawk	Fish Crow	American Robin	Cardinals & Grosbeaks
<u>Owls</u>	Chickadees & Titmice	<u>Waxwings</u>	Summer Tanager
Great Horned Owl	Carolina Chickadee	Cedar Waxwing	Northern Cardinal
Barred Owl	Tufted Titmouse	<u>Finches</u>	
<u>Woodpeckers</u>	<u>Kinglets</u>	House Finch	
Yellow-bellied Sapsucker	Ruby-crowned Kinglet	American Goldfinch	
Red-bellied Woodpecker	<u>Nuthatches</u>	<u>Sparrows</u>	
Downy Woodpecker	Brown-headed Nuthatch	Chipping Sparrow	
Pileated Woodpecker	<u>Gnatcatchers</u>	Eastern Towhee	
Northern Flicker	Blue-gray Gnatcatcher		

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Gulf Fritillary

Carolina Wren

