Marguerite Crabbe Greef Preserve

The Big Woods Preserve, a 90-acre tract of mature forest, freshwater wetlands, and salt marsh, is situated adjacent to and south of one of the oldest preserves in the township: Elliston Park. Forming the western border of the preserve is one of the most beautiful estuaries on the South Fork: Sebonac Creek. Big Woods, formerly part of the extensive Salm estate that once included nearby Cow Neck, was preserved through a joint acquisition utilizing private funding secured by The Nature Conservancy from the Greeff family and public funds available through the town's environmental bond. The town took title to the northern half of the property, that which was adjacent to its Elliston Park preserve, while The Nature Conservancy will be managing the southern forty-five acres.

The following is a description of the one-mile-long loop trail (marked with yellow-on-green blazes) through The Nature Conservancy's portion of the Big Woods, which has been named the Marguerite Crabbe Greeff Wildlife Sanctuary in honor of a woman whose family made TNC's purchase possible. Visitors to this beautiful and diverse wildlife sanctuary will traverse an upland forest with several large stands of American beech and smaller groves of stately white pines, and a wetland forest of tupelo and red maple underlain with a wide variety of wetland shrubs, ferns, and sedges, and will be treated to views over the Sebonac Creek tidal marshlands.

The trail begins in a mixed hardwood forest containing some large American beech trees and, within 75 yards, intersects with the main "loop" trail (1). Here, a large eastern white pine is found growing close to the trail. Several small stands of white pines are scattered throughout the preserve, and they contain the tallest trees in the Big Woods area. Although white pines are long-lived trees, reaching old age at 250 years, their size in this case reflects their ability to grow fast rather than their longevity. A rough approximation of a white pine's age can be made by carefully counting the number of whorled lateral branches along the main trunk; each whorl represents one year's growth. The distance between each whorl, which may vary from several inches to several feet, represents the growth rate for a particular year and, therefore, can provide some indication of growing conditions (temperature,

rainfall, etc.) for that season. In the case of the pine specimen at (1), it is a youngster at approximately sixty years of age.

Turning left at the intersection, note the change in both the forest canopy (oak, pine, and beech to red maple and tupelo) and the shrub layer (lowbush blueberry and huckleberry to sweet pepperbush and swamp azalea) along the trail between (1) and (2). An almost imperceptible descent of ten feet in elevation is enough to alter the soil conditions from dry to moist, giving wetland-tolerant species a competitive edge.

Off to the left, out of sight, is a tiny freshwater creek which drains into the tidal waters of Sebonac Creek. According to Hank Billing, a long-time resident of the area who is now deceased, this "dreen" once continued under Millstone Brook Road, through a swale, under Big Fresh Pond Road, and into the pond itself, providing a second outlet for Big Fresh Pond: one to the Sebonac Creek estuary and one to the North Sea Harbor estuary. The latter still exists today.

At (3) is the first of two short sections of boardwalk where the trail surface periodically intersects the water table. Alongside the walkways, hikers can get a close view of a wide variety of wetland plants including trees, shrubs, ferns, and sedges. Most times of the year the trees and shrubs, such as winterberry holly, chokeberry, swamp azalea, sweet pepperbush, and highbush blueberry, can be identified using any one of a number of field guides that describe bark, twig, and bud characteristics. One of my favorites is the non-technical, two-book series called *The Tree Identification Book* and *The Shrub Identification Book* by George Symonds. Identification of the herbaceous plants is best done in the warm months when in flower.

Back in the upland forest at (4), there is an excellent example of how the American beech reproduces by developing new shoots directly out of its root system. This asexual reproduction results in clones with all the physical characteristics of the mother plant, and directly connected to one another via the shared root system.

A short spur trail to the left at (5) provides the best access to the Sebonac Creek tidal marsh, where an ecological phenomenon known as plant zonation can be observed. In this case, the distinct bands or zones of vegetation correlate to position in the overall intertidal zone, with subtle changes in elevation above mean sea level on the order of centimeters determining the number of hours per day and frequency per month during which any particular area is covered with salt water. The sequence of zones, from least frequently inundated to most, is defined by the predominance of the following plants: groundsel bush, phragmites, salt hay (*Spartina patens*), and cordgrass

(*Spartina alterniflora*). A close examination of the salt hay zone will reveal several other grass-like plants: black rush (*Juncus Gerardi*) and spikegrass (*Distichlis spicata*), the dominance by one or the other further subdividing the salt hay zone by inundation time. Also within this particular zone are found a group of unusual succulent plants (*Salicornia* spp.) commonly called glasswort, and the salt marsh aster and sea lavender, which both have colorful flowers to add to the late summer salt marsh landscape.

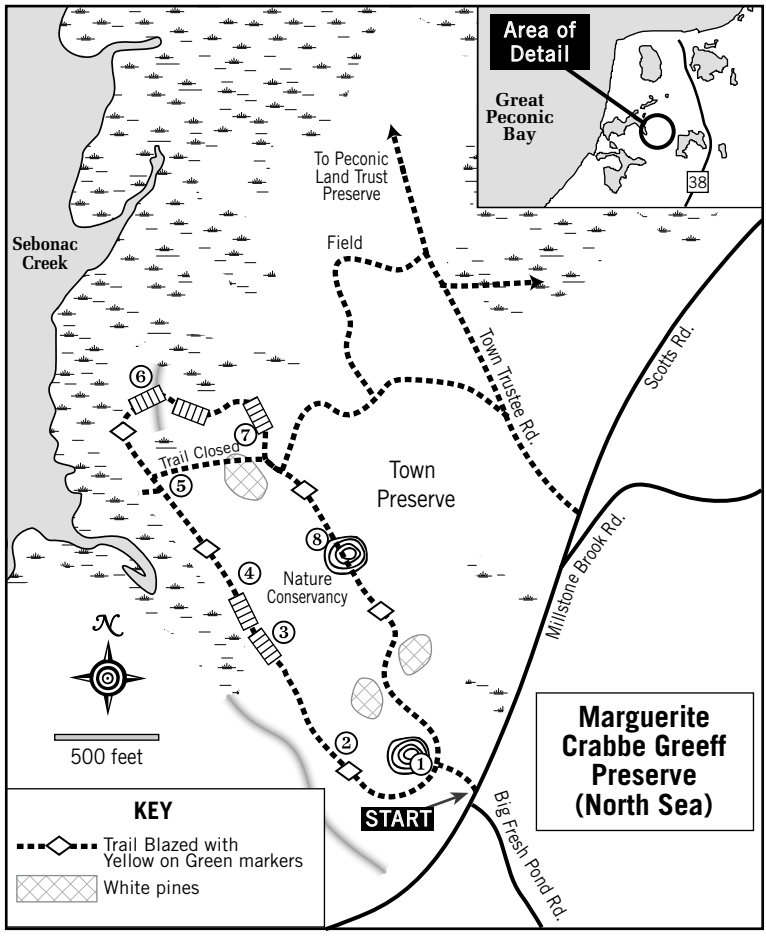
The northernmost section of the trail loop, between (5) and (7) on the accompanying map, skirts the edge of the Sebonac Creek salt marsh but is tucked just inside the adjacent freshwater swamp so as to preclude any views over the marsh. Several sections of boardwalk in this area enable passage in all but the worst flood conditions.

At the edge of one of the larger stands of white pines, growing on a large oak tree in the vicinity of (7), is a huge clump of bracket fungi clearly visible from the trail. Mushrooms, which are the reproductive (fruiting) structures of fungi, are most numerous and visible in the late summer and fall. Most are soft, fleshy appendages that do not persist for very long. Because of their woody character, bracket fungi last longer and are apparent throughout the year. As with all fungi, these organisms lack chlorophyll and cannot photosynthesize; food is obtained via a network of tiny strands called hyphae, which lumped together are known as the mycelium of the fungus. This network penetrates dead leaves, branches, tree trunks, animal carcasses, and, in some cases, living root systems and even hikers (the dreaded athlete's foot fungus). By way of secreting digestive enzymes which dissolve complex compounds, a process called decomposition, the hyphae are able to absorb simple food molecules for their own growth and reproduction. Much of the dissolved material not used by the fungi is available to the roots of nearby plants which, in turn, convert these simple minerals and nutrients back into complex compounds via the process called photosynthesis. Thus a cycle is created, one in which the fungi play a critical role as the ultimate recyclers.

Just beyond the bracket fungi (7) is a major trail intersection. The Nature Conservancy loop is well-marked, while the well-defined but unmarked trail leading off to the left connects to the town portion of the Big Woods and Elliston Park. The latter is proposed to be designated part of the Paumanok Path. Stay on The Nature Conservancy trail which ascends a small knoll (8) to a height of 32 feet above mean sea level: the highest elevation on the preserve. The knoll is covered with American beech, whose smooth gray bark is a striking in the leafless months of winter and early spring. As far as I know, American beech is the only tree in the northeast

with smooth, unbroken bark, even on the oldest specimens. I've often wondered about this odd feature and its ecological advantage. In his book *Reading the Forested Landscape: A Natural History of New England*, Tom Wessels offers an explanation: American beech is a member of a family of trees that evolved in the tropics, where the growth of epiphytes can actually break branches and topple entire trees. Smooth bark is an adaptation which inhibits the growth of epiphytes by reducing potential rootholds: an adaptation which the species didn't lose over time and climate changes. A fascinating answer and a good example of why I love the subject of field ecology!

Directions: From County Road 39, turn north onto North Magee Street (one traffic light east of Southampton College). Proceed past Tuckahoe School, straight through the intersection with Sebonac Road, to a five-way intersection, at which you turn right onto Millstone Brook Road (don't make the extreme sharp right onto West Neck Road). The entrance to the Big Woods Preserve is marked with a wooden sign on the left directly opposite from the intersection of Big Fresh Pond Road.


Area of Detail
Great Peconic Bay
38
To Peconic Land Trust Preserve
Field
Sebonac Creek
Town Trustee Rd.
Scotts Rd.
Trail Closed
Town Preserve
Millstone Brook Rd.
Nature Conservancy
N
500 feet
Marguerite Crabbe Greeff Preserve (North Sea)
START
Big Fresh Pond Rd.
KEY
Trail Blazed with Yellow on Green markers
White pines