
Foreword: Mike's Hikes

Robert S. DeLuca, President, Group for the South Fork

In his last manuscript, *The Dispersion of Seeds*, Henry Thoreau aptly wrote, “though I do not believe that a plant will spring up where no seed has been, I have great faith in a seed. Convince me you have a seed there, and I am prepared to expect wonders.”

And so it has been with eastern Long Island’s long-rooted and now blooming trail preservation movement and the contents of this book.

Although the original cutting, maintenance, and protective interest in trails can be traced to Long Island’s first aboriginal inhabitants (whose early paths still define some of today’s existing roads like Canoe Place and Noyac Path), colonial settlers also placed significant value on local trails as a resource of unprecedented importance to the public.

Whether for access to timber, open water, game, or salt hay, the public’s common interest in having access to the bounty of the local South Fork landscape was a staple of the cultural philosophy of the time and reinforced in the text of early patents passed down from the Crown to the region’s fledgling colonial leadership.

In the 130 years that followed, growing passions for ownership, private property, and limited governmental authority over land in part stoked the flames of revolution that led to the creation of this country.

On eastern Long Island, however, a century and a half of entrenched colonial settlement, governance, and custom established a culture and political philosophy that would not easily disappear—though surely it would be challenged.

Although it is hard to imagine today, eastern Long Island was relatively slow to change from its rural and agrarian past. As a result, active use of the region’s trails made significant sense for much of the resident population well into the early part of the last century. Most people farmed, fished, hunted, took others hunting, and utilized timber from local stocks made accessible by common trails. The existence of these trails truly facilitated daily routine in much the same way that our system of paved roads does today.

Outside of the region’s historic village centers, the subdivision of open land was a smoldered concern that eventually developed into the firestorm of

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development we experience today. By the early 1970s, major improvements in Long Island's roadways opened access to and widened investment interest in the South Fork and began a forty-year assault on the local landscape that has not yet subsided.

As open land was carved up into an ever-expanding number of individual development lots, the region's trail system was an early casualty. Private property rights confronted centuries of historic tradition and across the region trails began to disappear under the blade of the bulldozer. Without adequate legislative and public reinforcement of the trails tradition, a resource that had served the common interests of residents from every socio-economic group for centuries was on track to disappear in the span of single human lifetime.

But like many things on the South Fork, the future of the South Fork trail system was not predetermined.

Perhaps because of its smaller size, or simply because of the personal commitment of a few passionate individuals the Town of East Hampton was first to take up the issue of trails preservation and soon became the epicenter of the South Fork trails movement.

By the late 1970s the East Hampton Trails Preservation Society had formed as a volunteer organization dedicated the protection and preservation of the town's trails. Within ten years, Southampton would also have its own Trails Preservation Society and the development of a regional constituency for trail mapping, protection, preservation, and maintenance was substantially in place.

Nonetheless, in the face of escalating land conversion and unprecedented real estate values, the process of assuring continuous political and legislative support for trails protection has been—and remains—a daily challenge. Dedicated volunteers and centuries of tradition have been pitted against highly motivated developers, high-priced lawyers, and some less than stellar public officials, in a legal and ideological battle between private land and public good.

From the earliest days of the South Fork's trail preservation movement the Group for the South Fork has served as the region's principal professional support system, tactical strategist, and organizing advocate in support of the trails movement. The Group has committed its staff and financial resources to empowering and adding value to the individual and collective efforts of the region's now numerous trails volunteers. From grant-writing and litigation to trail clearing and mapping, the Group and its generous members have honored a commitment to trails preservation with the specific goal of

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creating a new generation of trail advocates and enthusiasts who will speak up knowledgeably and passionately for the protection of our public trails.

Over the course of the last two decades staff professionals, including the author of this book, have sought new ways to broaden public awareness, and deepen an appreciation for the region's trails. And so it was that in the spring of 1998, our Environmental Planner, Mike Bottini, working with the *The Southampton Press*, researched and produced the very first trail article for publication—a “seed” that would subsequently give rise to every wondrous hike that is covered in the pages of this book!

Over the past five years, working in partnership with the *The Southampton Press*, the Group was able to commit a substantial portion of Mike's professional time to the development of some 150 specific nature hikes, canoe paddles, and other outings that have now appeared in print.

The exceptional quality and detail of these articles recently earned Mike's now regular “South Fork Outdoors” column the New York Press Association's first place award for Best Outdoor Column.

The excellence of Mike's work will inspire others to speak up for the protection of the natural world. We have selected an array of outings that will give every reader an opportunity to experience the beauty, diversity, exhilaration, and inner peace that comes from a deepening experience of nature.

In return, we ask only that you help us in our efforts preserve and maintain our local environment and historic trail systems by becoming an active member of the organizations that have dedicated themselves to the preservation of the South Fork's trails. Your support allows the public voice for trails protection to grow stronger and more effective as the challenges grow larger and more significant.

We think Thoreau had it right. We have seen the seed for trails preservation planted, we have watched it grow, and we are certain that with your help we can protect our precious trails forever.

Introduction

The South Fork of Long Island, spanning the townships of East Hampton and Southampton, is more widely known as “the Hamptons,” a playground of the rich and famous. Among its best known natural resources are its beautiful ocean beaches. Less well known are its many and diverse nature preserves and greenbelt trails scattered along a narrow, forty-mile-long peninsula.

The number of preserves on the South Fork and the linear miles of its greenbelt trails may surprise many who have witnessed firsthand the intense development pressure the area has been subject to over the past twenty years. While development brought dramatic changes to our once rural landscape, several key environmental initiatives have enabled the acreage of preserved lands on the South Fork, and its public trail system, to greatly expand as well.

This did not happen by chance. These initiatives—a mandatory cluster law, the land transfer tax, and trail preservation ordinances to name a few—were the fruits of hard work by a number of dedicated organizations, individuals, and public officials. And the work is not over yet. For example, much remains to be done to complete the portion of the Paumanok Path from the Shinnecock Canal to Town Line Road in eastern Southampton; there is still a lot of vacant land that needs to be protected from development on the moraine; and nearly all these trails are maintained by volunteers.

And that is the reason for this book. My hope is that it may prompt people to visit a preserve, perhaps learn something new about this unique area, and inspire them to get involved in some way.

This book describes approximately one hundred miles of trails crossing through fifty different preserves and greenbelts. These hikes can be done at any time of the year: different seasons, and even different times of the day, offer a uniqueness that makes a hike worthwhile. And don't forget to plan a few full moon hikes over the coming year.

A few words of caution before heading out into the field. Bow hunting for deer takes place in our larger preserves from October 1 to December 31 (including weekends). The limited range of accuracy for bow hunting makes it unlikely that a hunter will mistake you for a deer, so I'm comfortable using the trails then. Shotgun season (weekdays for three weeks in January) is

another matter; for those fifteen days, stay out of the areas where deer hunting is allowed.

Deer ticks are a problem in that many of them carry the bacteria that can give you Lyme disease. I've had this twice since moving here in 1988, but went on antibiotics early enough to knock it out both times. I should point out that I often pick up ticks while doing off-trail field work, never on a well-maintained trail. Ticks can be active anytime of the year, including a warm winter day. But they are usually found in grassy or brushy areas. If you are hiking an overgrown trail, wear light-colored, long pants and tuck them into your boot tops or white socks and check yourself periodically during the hike and later at home. It takes at least twenty-four hours after the tick has started feeding for the bacteria to be transferred to your bloodstream. Some people insist ticks can be removed by simply showering; don't believe them. A steady pull on carefully positioned tweezers will do the trick.

A chigger is the larva of a parasitic mite that causes severe itching. They are not uncommon in the grasslands of Montauk, but I've been fortunate enough never to have experienced them firsthand. Poison ivy is not uncommon here, so it is a good idea to learn to recognize this plant by its leaves, berries, and hair-like aerial roots. As with ticks, chiggers and poison ivy are not problems on well-maintained trails. There are no poisonous snakes here. In the event you encounter a snake, consider yourself lucky to be able to observe one.

ACKNOWLEDGEMENTS

In my work over the past fourteen years as an environmental planner with the Group for the South Fork, I have had the great fortune of spending time in the field with many of the most knowledgeable naturalists and ecologists on Long Island, all of whom contributed in some way to this book. These include: Eric Lamont of the Long Island Botanical Society; John Turner, Dr. Stuart Lowry, and Dr. Marilyn Jordan of the Nature Conservancy; Marty Shea and Larry Penny of the Natural Resources Departments from Southampton and East Hampton respectively; Andy Sabin, Jean Held, and Jim Ash of the South Fork Natural History Society; Rob Villani and Don Reipe of the American Littoral Society; Dr. Howard Reisman, Sam Sadove, and Dr. Paul Forestell of Southampton College; and Bob DeLuca and Steve Biasetti of the Group for the South Fork. Tom Wessels, one of my field ecology professors at Antioch New England graduate school many years ago, continues to help me out with answers to ecological questions.

Introduction

Richard G. Hendrickson, Nancy Kane, William Mulvihill, Russell Drum, and Amund “Swede” Edwards contributed much to the historical information found in the book. Thanks also to Diana Dayton, the reference librarian at the incredibly well-organized Long Island Room of the East Hampton library, truly a community gem. Special thanks to Rick Whalen who, in addition to providing a wealth of historical information, first introduced me to the trails of East Hampton. Kurt Billing enthusiastically shared his knowledge of the trails in the North Sea area, and the potential for future greenbelts, some of which have come to fruition. Tom MacNiven, leading the way on morning runs, showed me many of the trail connections in East Hampton.

The daunting task of checking the hundred miles of trails mapped in this book was greatly expedited by Group for the South Fork staff (Steve Biasetti, Jodi Grinrod, Anita Wright, Adrian Drake, Elise Jacobs, and Madeleine Meek) and volunteers from the East Hampton Trails Preservation Society (Richard Lupoletti, Ed Porco, Ken Beiger, Ken Kindler, Bill Good, Nancy Kane, and Bill Nichols). In addition to correcting maps, many provided useful comments that were incorporated in the text.

This book would not have been possible without the support of the Group for the South Fork and the *The Southampton Press*. Many thanks to Bob DeLuca, president of the Group for the South Fork, for allowing me the luxury of writing a weekly column over the past five years, and Joe Shaw, editor of the *The Southampton Press Eastern Edition*, for publishing them and showing incredible patience with my inability to meet deadlines. Joe Louchheim, publisher of the *The Southampton Press*, was instrumental in the creation of this book: he first proposed the idea of having me write the South Fork Outdoors column, and the idea of publishing a book based on those articles. Thanks, too, to John Zack and Kerri Cunningham for their work on earlier versions of the maps.

My friend and writing mentor Greg Donaldson coached me through my first articles and provided much needed encouragement over the months I was trying to convert a weekly column into a book. A special note of thanks is due my publisher, James Monaco of Harbor Electronic Publishing, for steering me around the pitfalls that keep so many manuscripts from making it to the printers.

Mike Bottini
Springs
April 2003

TO GET INVOLVED OR JOIN A HIKE

Group for the South Fork (631 537 1400)
East Hampton Trails Preservation Society (631 329 4227)
Southampton Trails Preservation Society (631 537 5202)
Friends of the Long Pond Greenbelt (631 537 0660)
Long Island Greenbelt Trails Conference (631 360 0753)
Visit www.hike-LI.com and Peconic.org

ABOUT THE MAPS

Please see the Main Key at the back of the book for a general guide. Keys for individual maps include only additional information. These maps were accurate as of Spring 2003 but please remember that trails often change.

Shinnecock Hills

North Sea

Shinnecock Hills Preserve

A narrow wedge of open space just north of the Southampton College campus, the 26-acre Shinnecock Hills Preserve is nestled between the LIRR, County Road 39, and St. Andrews Road. Once part of the Shinnecock Golf Club (located directly across C.R. 39 from the Preserve), it was purchased in 1994 by The Nature Conservancy as an excellent example of the rare ecological community known as a “maritime grassland.”

As defined in the New York State Department of Environmental Conservation publication *Ecological Communities of New York State*, this grassland community occurs on the glaciated portion of the Atlantic coastal plain near the ocean and within the influence of offshore winds and salt spray. Little bluestem (*Schizachyrium scoparium*), common hairgrass (*Deschampsia flexuosa*), and poverty-grass (*Danthonia spicata*) are the dominant grasses. As is the case at the Shinnecock Hills Preserve, this community often intergrades, or occurs together in a mosaic pattern, with the “maritime heathland” community, dominated by shrubs such as bearberry, beach heather, lowbush blueberry, huckleberry, bayberry, and beach plum.

Once covering extensive areas of the Shinnecock Hills, Montauk, Block Island, Cape Cod, and the offshore islands in Massachusetts, this plant community is now among the most threatened natural communities in the East. Today, New York’s remnant maritime grasslands total less than 150 acres and are being lost even on “preserved” lands. Time, and a process called “ecological succession,” have greatly altered the grassland landscape both here and in Montauk, to one of woody shrubs and trees. Pitch pine, red cedar, oak, and black cherry are forming ever-widening groves at the Shinnecock Hills Preserve, and seem to indicate that something other than wind and salt spray are necessary for the long-term survival and competitive edge of the grassland community.

In the September–October 1996 issue of the Long Island Botanical Society Newsletter, Ann F. Johnson attempts to document this process of ecological succession in the Shinnecock Hills in her article “The Shinnecock Hills: From Drifting Dunes To Pine Forest in 160 Years.” By examining historical accounts dating back to the early 1800s, coastal and geodetic survey maps, and aerial photographs, Ms. Johnson pieces together the changes in the landscape and concludes that succession proceeded from bare sand to

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grassy heath between 1822 and 1897, and from grassy heath to pitch pine forest between 1897 and 1983. She ends with the question: “Will the Hills remain in pine forest, or will this in turn be superseded by oaks?” Something to ponder as you amble through the Preserve.

From the Preserve entrance, follow the yellow and green trail markers onto a narrow footpath which climbs steeply through an area of woody shrubs and scattered mature eastern red cedar, oaks and pitch pine. Approximately halfway up the hill (1), the trail passes through a very large and dense patch of trailing arbutus. Most hikers associate this prostrate evergreen with the edges of old woodland roads and trails, clinging to the thin boundary between the unvegetated, compacted soils of the path and the undisturbed adjacent forest. In such places, it forms narrow ribbons of green unlike the broad expanses found here. This fact was noted by botanist Willard N. Clute in his 1899 article “Spring in the Shinnecock Hills”: “most interesting was the Arbutus (*Epigea*), which here almost covered some of the open places, in full sun. The Wintergreen (*Gaultheria*), was also plentiful with the Arbutus, and both seemed decidedly out of place, since they usually occur in woods or at least thickets.”

Further along the trail passes through a waist-high, stout-twigged thicket of beach plum shrubs (*Prunus maritima*) (2). The trail soon veers left, levels off and contours along the side of the hill, skirting a large swath of catbriar on the downhill side (3) before emerging from the scattered trees and thickets and offering the first view over the grasslands. Here the trail forks: follow the arrow directing you to the right, up onto a ridge just below the high point of the preserve. From this vantage point you can view the mosaic of grasses, shrubs, and trees which comprise the preserve today. In order to maintain the grass portions, Nature Conservancy staff have been cutting down pitch pine, eastern red cedar, and black cherry trees as evidenced by the remaining stumps at 4.

Dropping down off the ridge, the trail cuts through an unnatural rectangular-shaped pit (5) largely vegetated with a reindeer lichen (*Cladonia* spp.). This appears to be one of the sand traps associated with the golf fairways constructed here many years ago. According to Elliot Vose, president of the Shinnecock Hills Golf Club, most of the Club’s original fairways were located south of what is now Route 27 (C.R. 39). The golf course was rearranged in the 1930s with the construction of the highway, and all fairways were relocated on the north side of the new road, where the original clubhouse was situated.

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Once abandoned, the bare, sterile sand found in the trap was the perfect habitat for *Cladonia* to colonize. Based on Willard Clute's observations from 1899, *Cladonia* may have been much more prevalent in this area than it is today. He reported that "in spite of all these adverse conditions, a considerable number of plants manage to exist in the sterile soil. Foremost among them must be placed the reindeer moss (*Cladonia*). When the sun shines, its existence seems to stand still. It crunches under the foot like crusted snow. But a day of moist air revives it, and it becomes soft, pliant and full of life."

Clute also reported that prickly pear (*Opuntia*) could often be found growing in amongst the *Cladonia*. Although I may have missed a few specimens, I was not able to locate any of the former, our native cactus, anywhere along the trail. It appears that this species is another victim of time, change, and ecological succession.

At 6, the trail winds through a small grove of evergreens: red cedar, pitch pine, and a non-native pine with two needles per fascicle and numerous cones quite a bit smaller than those of the nearby pitch pine. My guess is Scotch pine (*Pinus sylvestris*). As I stood examining the buds and unopened yearling cones on a warm sunny afternoon, I could actually hear the snap and crackle of the cones beginning to open to shed their seeds.

Just before reaching a small wooden footbridge, the trail passes close by two more old sand traps, one on the left and the other on the right. Beach heather (*Hudsonia tomentosa*) can be found in both. The footbridge spans a steep-sided ditch which runs straight through the entire preserve. I was not able to find any information on the purpose or origin of the ditch. After the bridge, the trail begins to swing north for the return loop. At 7, you will find a variety of woody shrubs, including both species of *Lyonia* (staggerbush, *L. mariana* and male-berry, *L. ligustrina*) and many good examples of the maritime heathland community such as bayberry, winged sumac, huckleberry, lowbush blueberry, and beach plum. Two key members of this community seem to have greatly diminished in numbers in the area: bearberry (I did find some on the dirt road just below the preserve's high point) and beach heather (*Hudsonia tomentosa*). Both of these were reported as quite abundant in earlier (1800s) botanical accounts of the Shinnecock Hills.

The trail next descends into a depression (8) that marks the lowest elevation in the preserve (44 feet above mean sea level, or AMSL). Here I was finally able to locate several shadbush (*Amelanchier*) specimens: three distinct clumps reaching approximately ten feet in height. I'm not sure if these are the rare Nantucket shads, or our more common *Amelanchier canadensis*.

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According to Southampton Town Chief Environmental Analyst Marty Shea, the Nantucket shadbush is much smaller in size.

With regard to the issue of whether the dwarf form is actually a separate species from the ubiquitous *A. canadensis*, or that it is merely an expression of environmental conditions, there is much debate. Veteran landscaper and nurseryman Charlie Whitmore was skeptical with regards to the separate species idea, being of the opinion that size reflected a particular site's growing conditions. George W. D. Symonds, author of *The Shrub Identification Book*, has this to say about *Amelanchier*: "This is a large and confusing genus; there is considerable difference of opinion regarding the various species." I'll give the final word to noted botanist Robert Zaremba of The Nature Conservancy, who writes: "A part of the taxonomic confusion of the Rose family, Nantucket Shadbush has not been listed as endangered because it may be a distinctive hybrid."

Before climbing back out of this protected swale, look for the young hickory growing near the bottom, the only hickory specimen I noticed along the trail.

Just beyond a point where the trail crests a knoll, it passes through a clearing dotted with half-inch stumps (9). This area was cleared of sumac in 1999 to allow for the expansion of the maritime grassland community: a form of reverse succession to provide a stage for the early successional grasses to thrive.

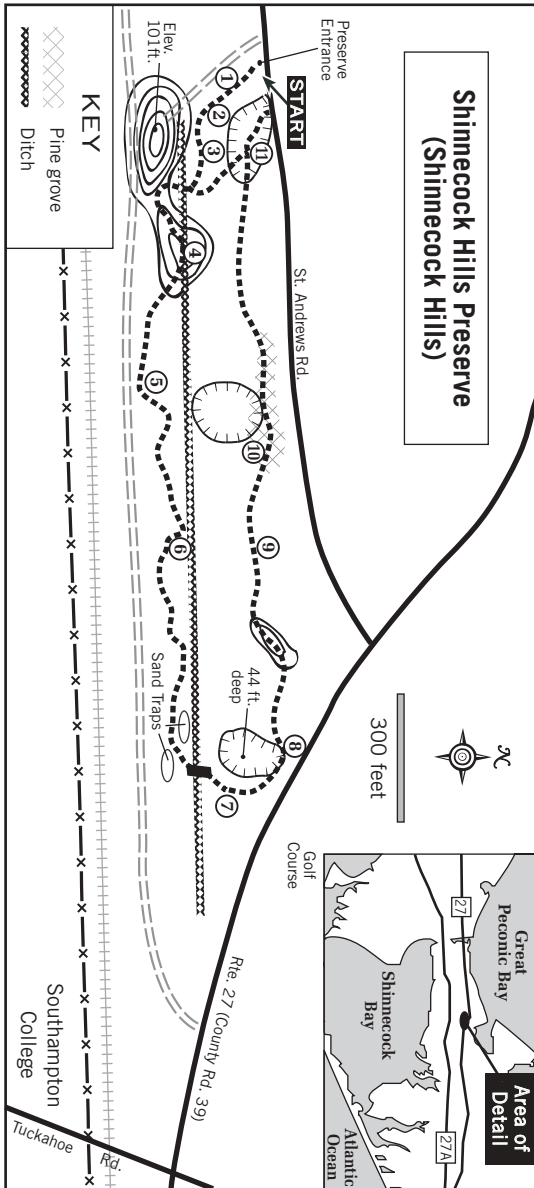
The trail next enters a pine and cedar grove (10) and skirts a depression on the left. Here again you will find Scotch pine in the mix. Further along (11), some older, large pitch pines show signs of past fire on their blackened trunks. The unmarked fork in the trail there is confusing; the main trail to the right leads out to St. Andrews Road. Look to the left and head uphill towards the trail signpost. At the intersection near the ditch, backtrack to the parking area. Consider continuing straight ahead onto the high point (101 feet AMSL) where a view of Peconic Bay can be had to the northwest. Note the flat-topped, level pitch of the knoll and the rich soil—this may have been one of the old golf course greens. An old roadway leads off the knoll and back to the trailhead area, traversing through a large patch of bearberry enroute.

While offering a pleasant walk at any time of the year, the best time to visit the Shinnecock Hills preserve is in late spring (May and early June) when the shrubs (shadbush and beach plum) and the wildflowers (bird's-foot violet, lupine and bushy rockrose (*Helianthemum dumosum*)) are in bloom. The latter is described by Robert Zaremba of The Nature Conservancy as

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“perhaps the signature species for the maritime grassland community.” Before planning a visit, consider contacting the South Fork Chapter of The Nature Conservancy (631-329-7689) to see if they are scheduling a guided tour of this interesting preserve.

Directions: The entrance to this Nature Conservancy preserve is located on St. Andrews Road, which intersects C.R. 39 (Rte. 27) just west of the Southampton College exit (the traffic light at Tuckahoe Road). Please be aware that this section of Rte. 27 is extremely dangerous, with traffic often moving very fast through the curves on either side of St. Andrews. Once safely on St. Andrews, look for the parking area and trailhead on the left, approximately 0.3 mile from C.R. 39.



Tuckahoe Hill Preserve

Despite its close proximity to the highly congested, strip-mall style development of County Road 39, Tuckahoe Hill offers the hiker a wonderful escape into a diverse and interesting forest. In the late 1980s, with the help of local resident Kurt Billings, Group for the South Fork led an effort to interest the town and county in preserving the 200-acre woodland that covers the hill. Our arguments for preservation included protecting one of the Suffolk County Water Authority well fields that supplied public water to Southampton Village; preserving wildlife habitat, including that of several rare species; and providing a corridor for the Paumanok Path that included one of the most magnificent views on the South Fork. As of early 2003, 140 acres have been preserved.

In addition to the ubiquitous oak-hickory forest, Tuckahoe Hill has stands of red maple, tupelo, pitch pine, and American beech, and quite a few survivors of the chestnut blight which continue to resprout from roots systems that are over one hundred years old. The many perched freshwater wetlands found in the area add to the forest's diversity, enabling it to support a wide variety of amphibians such as spotted salamanders, spring peepers, spadefoot and Fowlers toads, and gray tree frogs and wood frogs, in addition to the usual woodland inhabitants: red fox, white-tail deer, box turtles, milk snakes, red-tailed hawks, and great-horned owls.

The 127-foot-high section of glacial deposits known as Tuckahoe Hill is somewhat isolated from the rest of the east-west trending Ronkonkoma moraine. Topographic maps of the area reveal low-lying lands on its east and west flanks which are part of several distinct north-south troughs. One connects North Sea Harbor, Little Fresh Pond, and Agawam Lake, the other connects North Sea Harbor, Big Fresh Pond, and Heady Creek, at the east end of Shinnecock Bay. According to the 1957 U.S. Geological Survey for this area, these north-south trending channels developed as a result of rivers of glacial meltwater carving through the morainal deposits between the slowly receding glacier to the north and the Atlantic Ocean to the south.

The trail entrance is on Sebonac Road, directly across from Tuckahoe School, and adjacent to the stop sign at the North Magee Street intersection (1). The narrow, recently cut footpath winds through a mature oak and hickory forest, skirting a large swamp off to the right. Many of the understory

Tuckahoe Hill Preserve

shrubs are sweet pepperbush and swamp azalea, head high woody plants often found in or adjacent to wetlands.

Within a few hundred feet the footpath joins a fairly wide, unpaved road (2) whose sandy roadbed is a good place to look for animal tracks. Deer, fox, and raccoon imprints are often discernible, even to the novice tracker. After a short distance, you may notice a few wetland plants growing along both sides of the road: tupelo and red maple trees, and sweet pepperbush and highbush blueberry shrubs (3). In the winter months, with most of the leaves gone, the low areas of both wetlands are fairly visible. Clumps of Tussock sedge can be seen in the bottom of the wetland off to the left, while the one on the right is dominated by old tires.

Termed “vernal” wetlands, these low-lying areas usually have standing water in them early in the year from winter and spring precipitation, but are often dry in the summer months. The temporary nature and small size of these wetlands has been a huge liability for them: many people, including generally conservation-minded sportsmen, do not see the value of wetlands that support neither gamefish or waterfowl. Fortunately, the South Fork has local ordinances that do, as both these wetlands are the haunts of a variety of unusual amphibians, including some of our beautiful and rare mole salamanders.

As the road gradually steepens and comes within sight of a large wood and brush pile, look for a foot trail on the left (4). Although it is a well-worn and quite visible path, it is easily missed.

According to William Wallace Tooker’s book on Indian names, Tuckahoe has several possible meanings. His best guess is that it is the Shinnecock name for *Arisaema triphyllum*, commonly called jack-in-the-pulpit or Indian turnip and quite abundant in the damp soils of the Tuckahoe and North Sea area. While the name “Indian turnip” suggests it is a wild edible, this may be a case of a misleading common name. It and a close relative, skunk cabbage, are riddled with calcium oxalate crystals which cause a severe burning sensation in the mouth. The crystals may be a built-in defense against browsing. In any case, the turnip needs to be repeatedly boiled and strained in order to purge the crystal, a process that uses more energy in preparation than is gained in eating.

At the first trail intersection (5), note the abundant swamp azaleas (*Rhododendron viscosum*) growing along both sides of the trail. Although normally found in wet soils at the edge of swamps, marshes, and freshwater ponds, here it is thriving in dry sandy soil quite a distance uphill from the kettlehole wetland off to the left (west).

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Continue straight (north) and look for several American chestnut trees close to the trail at and before the next intersection (6). American chestnut (*Castanea dentata*) was once one of the most common forest trees throughout much of its range, accounting for a third to half of the canopy species. Not only was it common, but it grew fast and lived long, the latter a reflection of its status as the most rot-resistant of our native trees. All that changed quite quickly and dramatically beginning in 1890 when nursery stock from China infected with the Asian fungus *Cryphonectria parasitica* was brought into New York City. Spreading at a rate of up to fifty miles per year, 99.9% of all chestnut canopy trees in North America were dead by 1950.

For some reason, the mature canopy trees initially infected by the fungus were not able to regenerate by root sprouts. However, their offspring, trees grown from nuts produced before the magnificent canopy specimens succumbed to the blight, could stump-sprout after attack by the fungus. The vast majority of today's multiple-trunked understory chestnuts arise from root systems established by nuts which germinated at the onset of the blight.

While this allows the American chestnut to survive as a member of the forest community here, the fungus kills the above-ground portion of the tree before it reaches an age where it can produce fertile nuts. This fact severely reduces the American chestnut's stature and role in today's forest community.

We are waiting for a few more public acquisitions in the Tuckahoe Hill area before designing a better trail loop; for the time being you will have to backtrack to (5). Turn left there and follow alongside some snow fencing into a slight depression, then up to the top of Tuckahoe Hill, owned by Southampton Village. As you climb you may notice that the size—both height and girth—of the oak trees along the trail diminishes dramatically. This phenomenon is very common all along the South Fork moraine, particularly on the northern slopes. The strong northerly winds and porous, dry soils near the morainal ridge combine to stunt the growth of the typical assortment of oaks and hickories which, further downhill, grow much larger. This process mimics, in some ways, the better-known “krummholz” phenomenon in the mountains of New England.

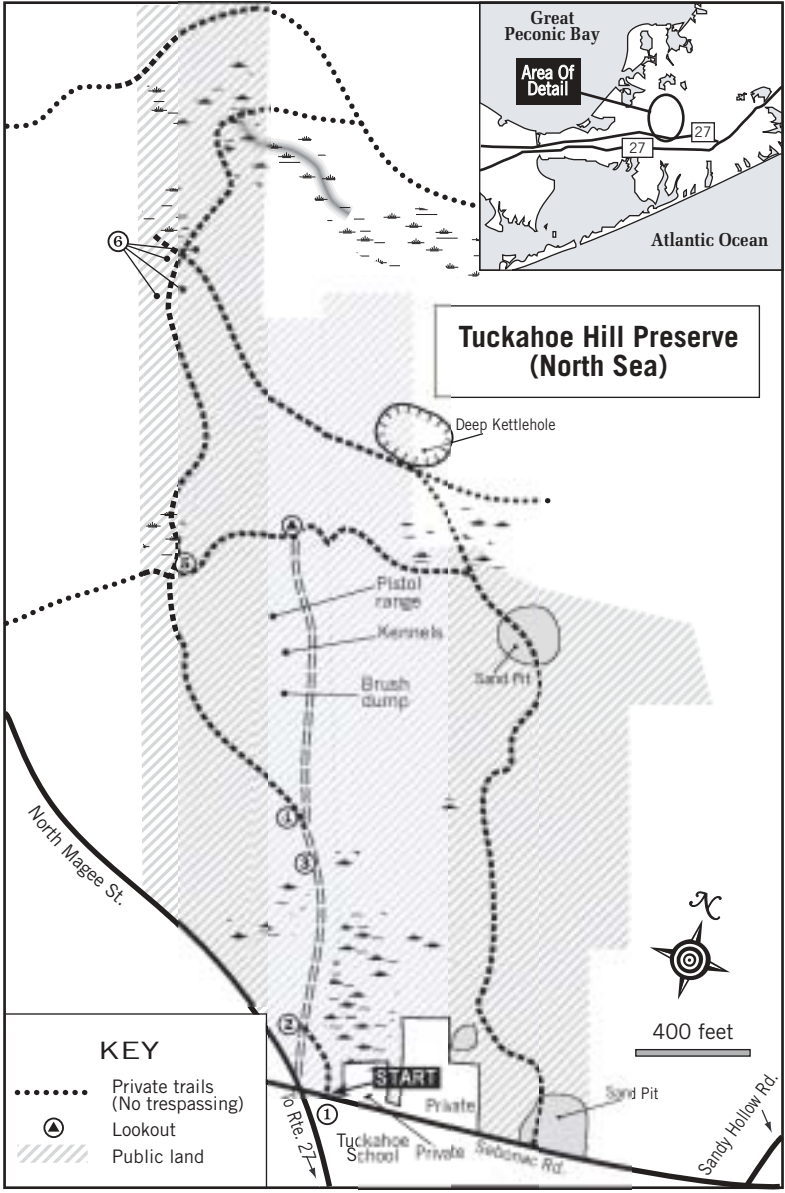
Someone recently cleared many of the oaks growing on the north side of the summit, probably to enhance the panoramic view: one of the best on the South Fork. Slivers of water on either side of Cow Neck mark Little and Great Peconic Bays; the sandy bluffs of Robins Island and the North Fork are also clearly visible. The only obvious structure in the 180-degree view is the barn and silo on Cow Neck.

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As an alternative to cutting down trees, perhaps a small observation tower, five or six feet high, would suffice; it could be constructed over the concrete foundation of the old World War II lookout station, which was located at the hill's highest point.

To return to the trailhead, simply follow the roadway on the south side of the hill: a direct and quick route back, passing the Village police pistol range, a storage area for dead street trees (some nice firewood there), and an abandoned dog kennel.

Directions: Situated north of Route 27 (a.k.a. County Road 39) between Southampton College and Southampton Village, Tuckahoe Hill is bounded on the west by North Magee Street, on the east by Sandy Hollow Road, on the north by West Neck Road, and on the south by Sebonac Road. The trailhead is located in the northeast corner of the intersection of Sebonac Road and North Magee Street, directly across from Tuckahoe School.



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,

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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 (low-bush 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 high-bush 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

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(*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

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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.

