



# Guide's Guide

## *Salt Pond and Nauset Marsh*

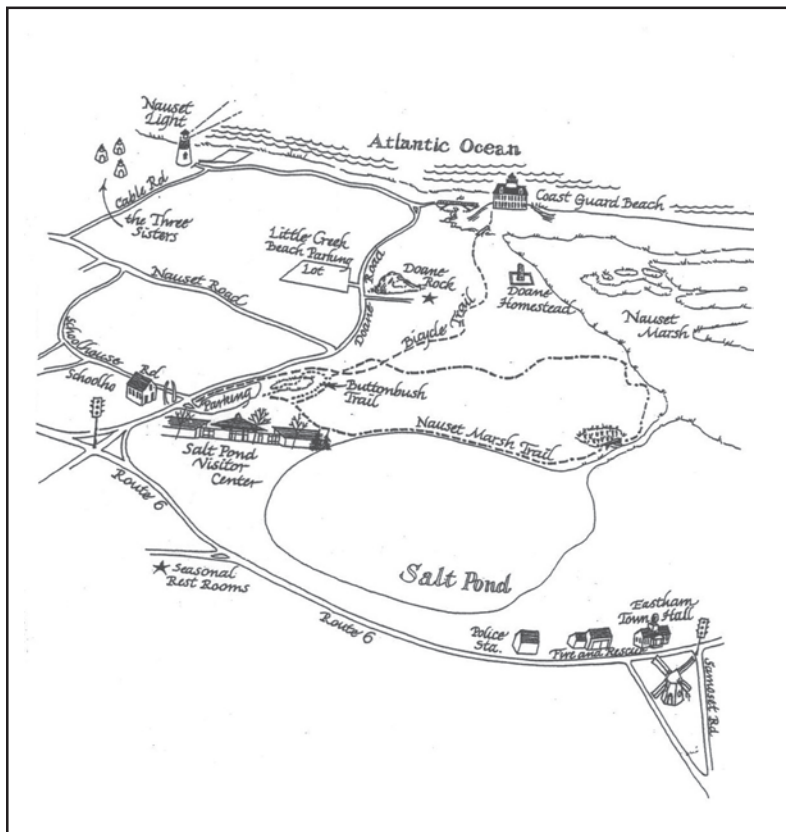
### *Location Summary*

**Directions:** At the second stoplight in Eastham, turn right off Route 6 (look for brown and white Visitor Center sign).

**Safety:** Observe posted speed limits (this section of road can be congested at times). Do not unload at Visitor Center main walkway (use designated unloading zone).

**Other:** Restrooms available year round. Large numbers of passengers, however, can cause long lines.

**Tips:** Most vistas of the area will be to the right, with the exception of the Eastham Windmill, which is to the left, just past the first set of traffic signals (directly across from the town hall and fire station). Salt Pond Visitor Center is a primary orientation facility for bus groups. It offers restrooms, bookstore, museum exhibits and orientation films on the hour and half-hour.



**Time Frame:** 45 minutes to one hour. (If congested during morning hours, groups may wish to return in the afternoon, after touring northern half of the park.)

**Notes for Educators:** Salt Pond Visitor Center is an excellent starting location for field trips. Special videos (e.g., plovers, archeology and marine debris) can be shown on the lobby TV monitor, if time/staffing permits. Salt Pond and the Nauset Marsh and Buttonbush Trails are adjacent to the Visitor Center. Plan on one to 1.5 hours to walk them. The outdoor amphitheater is a good spot for lunch (please recycle and securely bag all trash).

**Highlights:** Eastham Windmill (oldest operating windmill on Cape Cod); View of Salt Pond (to the right of Route 6); Salt Pond Visitor Center; Nauset Marsh; Nauset Marsh Trail; Buttonbush Trail (with features for the visually impaired); Old Schoolhouse Museum (across from Visitor Center) operated by Eastham Historical Society

# *Salt Pond and Nauset Marsh*

## *Prominent Natural Features*

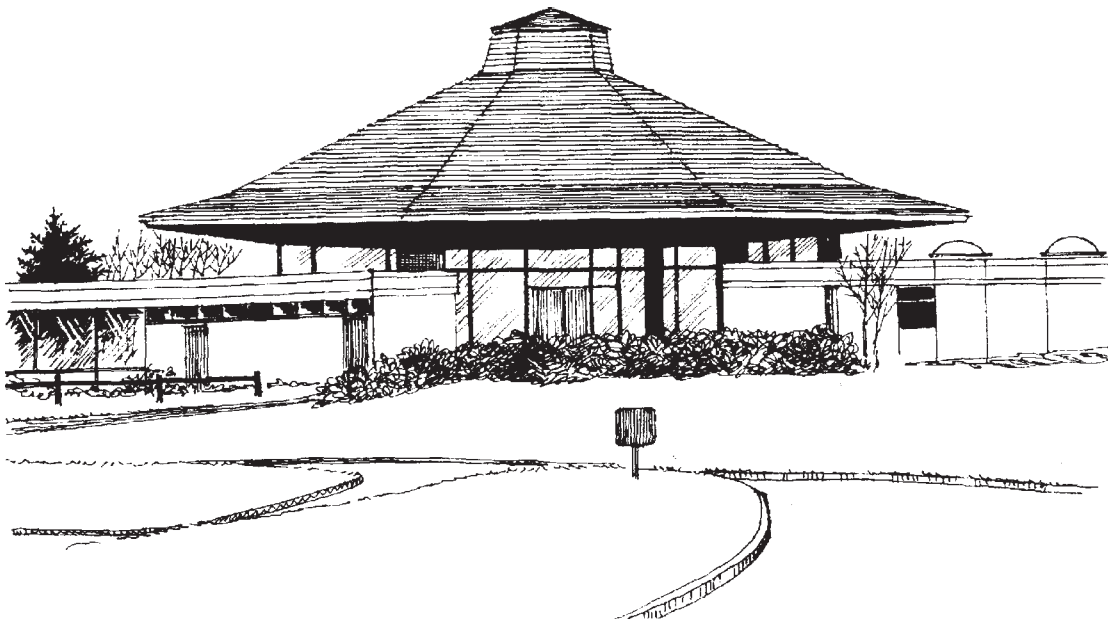
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**The Nauset Marsh Trail** is a 1.5 mile loop trail that skirts the edge of Salt Pond and Nauset Marsh and returns through transitional forests and fields (once a golf links and previously farmed land). The trail starts directly below the Salt Pond Visitor Center. The area is well-suited for studies of salt marsh ecosystems and upland plant succession. The area is also excellent for birdwatching.

**The Buttonbush Trail** is a multi-sensory .25 mile loop trail which highlights nonvisual features. It provides a guide rope and text panels in Braille and large lettering. Groups often have students wear blindfolds (made of strips of cloth) while walking the trail. A teacher (or nonblindfolded student) then reads the text. Students often remark that this is one of the most memorable experiences of their trip.

**Salt Pond** is a forty-foot deep glacial kettle hole that has been breached by the sea, hence it is a tidal saltwater body. The margins of the pond offer a broad and stable wrack line that is easy to walk on and allows for close-up observation of salt marsh grasses, flats and edge communities.

**Salt Pond Visitor Center** offers a variety of natural history educational resources. The Park's main orientation film, *The Sands of Time*, about the geological formation of Cape Cod is shown regularly. A touch box with shells and other natural items of interest is located in the hallway, and the main museum hosts a variety of exhibits on Cape Cod natural resources. On occasion, topical educational video tapes (e.g., piping plovers, marine debris) are shown on the TV monitor in the Visitor Center lobby.



# *Salt Pond and Nauset Marsh*

## *Touring Script*

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Nauset, the name of the local Wampanoag natives, was the first placename selected by the English settlers who came here from Plymouth in 1644. The town's name was later changed to Eastham, but many reminders of the original namesake remain.

One of the most prominent is Nauset Marsh, the dominant natural feature of the area.

Traveling northward (on Route 6), the first historic feature visible in this area is the Eastham Windmill (located to the left of the roadway).

A quarter-mile further on the right is the first view of Salt Pond, a tidal pond adjoining Nauset Marsh. The scene unfolds further at the Salt Pond Visitor Center, which offers a spectacular view of Salt Pond, Nauset Marsh and the ocean horizon.

### **500,000 Visitors a Year**

The National Park Service built the Salt Pond Visitor Center in 1965, and it has served close to 500,000 visitors annually ever since. It is Cape Cod National Seashore's main visitor facility, with orientation movies on the half hour, a well-stocked bookstore, a comprehensive museum and restroom facilities. The museum features exhibits on both the Cape's natural and cultural history, and is a popular starting point for travelers.

Just outside the Visitor Center are two popular nature trails. The 1.5 mile Nauset Marsh Trail skirts the Salt Pond and provides vistas of Nauset Marsh and Nauset Spit. The Buttonbush Trail, a shorter .25 mile pathway, is a multisensory trail featuring a guide rope and text panels printed in large lettering and Braille.

The Salt Pond is a tidal basin that feeds into the Atlantic Ocean. The Town of Eastham regulates shellfish resources here, and raises and re-stocks the ever-popular quahog and other clam species. Town permit holders can collect specified amounts of shellfish here at low tide on Sundays.

The marsh area adjacent to Salt Pond provides a rich habitat for a variety of living organisms. In addition to clams, the marsh serves as a nursery for lobsters and some fifty species of fish. The marsh ecosystem is enriched by the rich growth of salt marsh grasses and twice-daily flooding and draining by tides.

The area is renowned for bird life, and at various times of the year, one might see white-patched bufflehead ducks, graceful great blue herons, or snowy egrets.

Two paved bicycle trails also are located in this vicinity. The state's Cape Cod Rail Trail intersects the Cape Cod National Seashore boundary just north of the Salt Pond Visitor Center. The Nauset Bike Trail, part of the Cape Cod National Seashore, extends between the Salt Pond Visitor Center and Coast Guard Beach. It transverses woods, fields, and, at one point, travels over a bridge across the eastern edge of Nauset Marsh.

# *Salt Pond and Nauset Marsh*

## *Nauset Marsh Trail Guide*

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### **1) Salt Pond - A Kettle of Sea Water**

As the glaciers of the Ice Age receded about 18,000 years ago, huge chunks of ice were left scattered across the landscape. When these ice blocks melted, they left depressions in the earth. Then, as the Cape's water table rose, numerous "kettle ponds" began to appear.

Salt Pond was originally a freshwater kettle, but eventually the ocean broke through and formed a narrow channel connecting Nauset Marsh and the pond.

Salt Pond is enriched twice daily by tidal action, and supports a diverse community of marine life. Quahogs, oysters, mussels, fish, shorebirds, plants of the marine environment, and animals-including humans-all mark the change from fresh to saltwater. But Salt Pond is continuing to change, its entrance gradually filling with sand.

### **2) Bridge Across Tidal Waters**

Originally constructed to impound brackish water, the dike adjoining Salt Pond has ceased to function.

Sheltered and within range of the changing tides, the area was also once the site of a tide-powered mill. The dike, however, was added in more recent years to attract waterfowl for hunting. If left contained, the water here would turn fresh, a fact attested to by the fresh ground water seeping out of the hillsides.

Now the human uses of the pond are more subtle, devoted mainly to occasional boaters, hikers and Sunday clammers. Careful examination also reveals mosquito drainage channels and square greenhead fly traps in summer, a more environmentally acceptable method of control than spraying or filling. The quahog "seed" rafts floating in Salt Pond insure a bountiful return of a once almost depleted resource.

### **3) Nauset Marsh Overlook**

When Nauset Marsh was charted by the French explorer Champlain in 1605, it was a navigable bay. The explorer also noted a number of beehive-shaped homes on the hillsides, placed there by the native Nausets.

What is now Nauset Marsh was once a vast freshwater system, until the eroding shoreline connected this area to the ocean.

As time passed, ocean currents deposited a narrow stretch of sand along the outer shore. We now know this as Nauset Spit. The spit acted as a protective arm, or barrier beach, and this allowed the extensive salt marsh to develop.

Typical of salt marshes, the area is a full-scale nursery for oceanic fish, shellfish and microscopic plankton. It also serves as an important habitat along the Atlantic flyways for shorebirds, wading birds and waterfowl.

Shallow enough to allow marsh grasses to establish roots, the tidal flats are actually stabilized by the extreme conditions that exist there. Ranging from hourly changes in the water level to infrequent but often catastrophic winter storm effects, the salt marsh environment is uniquely suited for specific organisms. Nourished and then flushed twice daily by the tides, the marsh yields abundant nutrients, especially from decaying salt marsh and salt meadow cord grasses, which feed into a vast food chain. The aromas of this activity are most noticeable in the fall.

#### **4) The Cedars of Nauset Links**

Traveling inland from the marsh, the landscape changes rapidly into an area of red cedar and aromatic bayberry. The red cedars (actually junipers) are sun-loving trees, quick to take over fallow fields and barren grounds of the Cape.

But they also serve as clues to a past human influence. Until the early 1930s a private golf course was here, complete with sand traps, open fairways and putting greens. Much evidence of this past activity can still be seen amid the landscape.

Once abandoned, the cedars quickly filled in the course as their seeds were distributed by gravity, birds and animals. Red cedars, however, do not tolerate shade. And as the area fills in, other trees such as white and black oak begin to dominate. Eventually, maple and beech trees, with seedlings that grow well under their own shade, will someday again be the most prevalent trees on Cape Cod.

#### **5) The Old Farmstead**

Between the bicycle path and the roadway is an extensively altered landscape that was once a farm. As vital soil nutrients were removed by continual use and re-use, the land lost fertility and had to be abandoned. Black locusts, with their ability to fix nitrogen into the soil, were introduced to replenish the land. Today, these tall, thin trees manage to perpetuate their own setting by allowing little or no undergrowth beneath them.

Black locust, originally from the southern part of our nation, shares this area with other nonnative plants, including the smooth-barked tree of heaven, fruit trees and garden plants, amid remnants of old man-made structures.

Diversified areas like these, and fringe areas of beach plum, black cherry, bayberry and pitch pine, provide important habitat for songbirds, quail, raccoons, rabbits, foxes, squirrels and deer.

Humans, too, are part of this environment. And through lighthouses, windmills, old homes and fields, we intentionally preserve certain reminders of our ancestral heritage.

# *Salt Pond and Nauset Marsh*

## *Buttonbush Trail Guide*

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The Buttonbush Trail was initiated by various members of the blind community and the National Park Service in the early 1970s.

The physical design of the Buttonbush Trail is simple. It is a quarter-mile loop trail with a guide rope and text panels in both Braille and large lettering along its route. As users walk along and read text panels, they learn about the nature and history of the area through touching, feeling, hearing and smelling.

Since the Buttonbush Trail has been designed to encourage multiple sensory experiences, it has become popular with a wide variety of Park users. It is used routinely by fully-sighted educational and family groups, who often follow the guide rope in teams of two-with one person blindfolded (or with eyes closed) leading, and the other following and reading the text on the panels out loud.

### **An abbreviated text for each station along the trail follows:**

1. Welcome to the Buttonbush Trail. Stop often to look, listen, smell and feel. These senses will add pleasure to your walk. Follow the guide rope in front of you along a path three feet wide. A smooth bump on the guide rope indicates a step ahead. A round marker indicates a trail sign with information about natural or historical features. Enjoy yourself!
2. The trail winds through a freshwater environment, yet a saltwater pond connected to the ocean is only 300 feet behind you; two natural conditions so close, yet so different.
3. Gently touch the branches of a nearby red cedar tree.
4. Reach out and feel the reddish brown bark of a red cedar tree.
5. Feel the dull, smooth, gray bark of the black alder (or winterberry).
6. You have come to the Buttonbush Pond. You will cross on a wooden bridge with guard rails on both sides.
7. This pond is filled with buttonbush shrubs, hence its name. These evenly topped, 3 foot tall shrubs have many slender, brownish-gray branches that make good nesting places for red-winged blackbirds in spring.
8. Male red-winged blackbirds are black, except for the unmistakable bright red patches located on their shoulders just above the wings. Listen.
9. You have reached the end of the Buttonbush bridge. You are almost halfway around the trail. There will be several steps on the pathway ahead. They are marked by a smooth bump on the guide rope. If you wish to avoid these steps, you can turn around at this point and return to the beginning of the trail.
10. The locust tree behind you has fragrant clusters of white flowers in early summer. Reach across the path and feel its deeply ridged bark.
11. Where you are standing a Nauset Indian might have stood many years ago, cutting the type of shrub in front of you for arrow or spear shafts. It is called arrowwood.
12. In 1644, seven families came from Plimouth (Plymouth) to Nauset, now called Eastham, to farm the land. The tangle of small pink roses and grape vines near you is evidence of past human use of this area.

13. The old, gnarled apple tree in front of you is another trace of past farming on this land.
14. Nauset Road, which leads to the Atlantic Ocean, is only 100 feet to your left. At this point, reach across the path several steps to your right for the guide rope and continue your journey.
15. The tree in front of you is a pitch pine. Reach out and touch its rough bark.
16. Does the tree in front of you feel familiar? It is a red cedar.
17. Reach across the path several steps to your left for the guide rope and continue your
18. The woody shrub in front of you is beach plum.
19. The gentle rolling land in front of you is covered with red cedar, oak and pine trees. Bayberry and beach plum shrubs are also abundant. These hills slope down toward another pond that is filled with seawater, hence its name "Salt Pond."
20. Knock on the trunk of the maple tree in front of you. Can you sense how hard its wood is? Maple sap can also be boiled into delicious syrup!
21. In front of you is a black cherry tree.
22. There are two main types of oaks on Cape Cod, black and white. Black oak leaves have sharply pointed edges, while white oaks have smooth, rounded edges.
23. Reach out and feel the rough bark of the nearby tree. Do you remember this tree? It is a pitch pine.
24. In front of you is another reminder of previous uses of this land. The pear tree nearby looks very much like an apple tree, but its fruits are shaped and taste somewhat different.
25. There are some interesting additional features. If you feel adventurous, you may wish to investigate. A short length of guide rope, several steps behind you, leads to an additional trail sign.
26. In front of you is a low shrub called bayberry.
27. This ends your walk on the Buttonbush Trail. This is a fragile place, where people are learning how to appreciate history and nature in a setting to be enjoyed and cared for by everyone as part of the Cape Cod National Seashore. Please visit again!

# *Salt Pond and Nauset Marsh*

## *Salt Pond Visitor Center Museum*

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Salt Pond Visitor Center was opened to the public in 1965. The museum portion of the Visitor Center was upgraded in 1989 to reflect the vast range of natural and cultural themes represented on Cape Cod.

As you enter the museum, you are greeted by a large photo mural showing ocean, beach, and cliffs, incorporating a quote from Henry David Thoreau, *The seashore is a sort of neutral ground, a most advantageous point from which to contemplate this world.*

Throughout the museum, other quotes highlight themes that the museum's exhibits encompass, along with artwork from prominent artists.

The exhibits offer highlights of the Cape's complex natural composition. Realistic molds of native plants and mounted animal specimens emphasize the rich and diverse natural history of the Outer Cape. Displays in this section cover salt marsh plants and animals, beach dynamics, upland plant communities and prominent residential and migratory birds.

The remaining sections of the museum deal with the Cape's rich cultural heritage, always keeping in mind an interconnection with the area's natural history.

Portions of one section offer an extensive display of scrimshaw and other artifacts relating to the Cape's whaling era history. Included in this section are an account book and journal of Captain and Mrs. Edward Penniman - local residents who figured prominently in the whaling industry between the 1860s and the turn of the century. Other themes in this section include displays of artifacts relating to the Cape's diversified fishing heritage, including a full-size dory, and artifacts from Cape Cod historic and prehistoric resources that relate to the maritime theme.

Additional sections of the museum deal with the Cape's noted architectural heritage, including the internationally renowned "Cape Cod" house. Artifacts also reveal the Cape's significant involvement with lighthouses and Life Saving Service operations.

The Outer Cape's agricultural, transportation, commercial and religious heritage are also touched upon by the museum's exhibits, as is the evolution of the Cape as a place for recreational pursuits.

Recreation and restoration was a theme which Thoreau envisioned for the Cape when he visited and wrote about the area in the 1850s.

It is still a prominent theme, one recognized and represented today by the establishment of Cape Cod National Seashore with its various features and facilities.