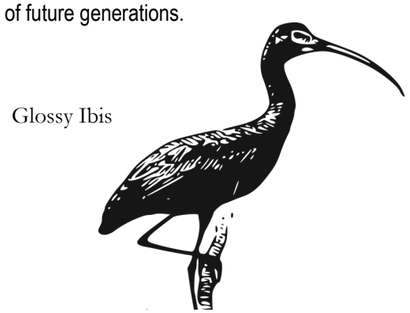
11 – Screen House: From near the screen house you can view several habitats valuable to wildlife, especially for bobwhite quail. The old, overgrown fencerows along the vehicle trail provide good travel cover and loafing areas for bobwhites. The grass-forb cover surrounding the abandoned cottage is ideal for brood-rearing bobwhites because it supplies a variety of seeds and insects within easy reach of chicks.

12 – Observation Deck: What a view! From this vista above the marsh, you may see egrets and a variety of waterbirds, but you might want to look for some other telling signs of the place's history. The old cedar fenceposts dotting the marsh are evidence of cattle grazing on the saltmeadow, popular here many decades ago. Toward the south remain remnants of an old causeway that connected the farm to the "hammock", or island in the marsh. Storm tides have destroyed the old "corduroy road" (of timbers) that once topped the causeway. These relics convey an ephemeral quality of seaside human settlements, and allow us to see up close, the effects of rising sea levels. Salt marshes and estuaries are some of the most productive ecosystems in the world. Just as Native Americans did here thousands of years ago, we continue to support ourselves with the natural resources provided by our coastal ecosystems. The Nature Conservancy and their partners are working to protect critical habitats like this for the enjoyment of future generations.



Glossy Ibis

13 – Man-made Impoundments: Water impoundments have a long history of use as a management tool for waterfowl, but appeal to a broader diversity of birds when water levels are managed appropriately. Several impoundments on the farm receive frequent use by wading birds such as the glossy ibis, and shorebirds such as the willet. TNC recently installed a solar-powered pump and well to manage the water levels in this small pond. Solar power is ideal for pumping water and other applications in remote locations.

14 – Tidal Creek View: The last stop on the trail ends with a view overlooking Phillips Creek and its associated tidal marsh. Visible are 3 zones: the *high marsh* dotted with shrubs, *low marsh* with mud flats and saltmarsh cordgrass, and open water. Researchers from several universities are studying the physical ecology of these marshes to understand how the marshes may respond to predicted changes in climate and sea levels. (This is the last point on the trail. To return to the trailhead, just retrace your path.)

Bobwhite Quail

PRESERVE GUIDELINES

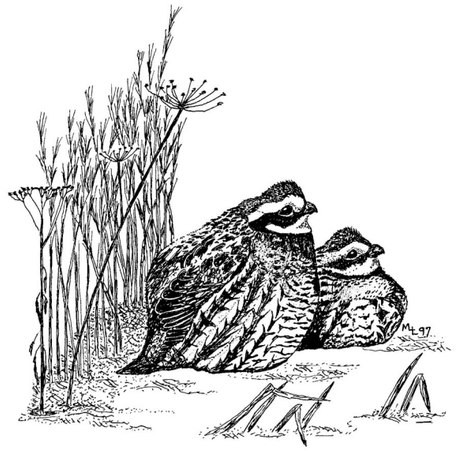
Please help us protect this area by observing these guidelines.

- Preserve open half hour before sunrise until half hour after sunset. For safety during the deer hunting season, visitor hours are 9am to 3pm (October thru early January).
- Please keep your pets leashed. Please, no pets during hunting season, October through early January.
- Please hike or bike only on the designated marked trail and respect the areas marked private or no trespassing.
- Foot and bicycle traffic only beyond parking area. No horseback riding. No ATVs.
- Camping and fires are not permitted.
- Wear sensible shoes, carry drinking water, and don't forget insect repellent. Beware of poison ivy and check for ticks after hiking.
- Respect the safety of all visitors and wildlife and please do not collect anything (take only pictures and leave only footprints).

Any questions or concerns, please visit the main office or call (757) 442-3049.

The William B. Cummings Birding and Wildlife Trail was funded in Mr. Cummings' honor by the Virginia Environmental Endowment. Mr. Cummings, who was chairman of the non-profit Endowment's board for its first 17 years, was the U.S. Attorney for the Eastern District of Virginia when it prosecuted Allied Chemical Corp. for polluting the James River. The court accepted a portion of Allied Chemical's fine to establish the Endowment in 1977. Its mission is to improve the quality of the environment by using its capital to encourage all sectors to work together to prevent pollution, conserve natural resources, and promote environmental literacy. The Nature Conservancy is grateful to the Endowment for its continuing support.

Brownsville Preserve



The William B. Cummings Birding and Wildlife Trail

WELCOME

Brownsville is the headquarters for The Nature Conservancy's Virginia Coast Reserve. This historic property of over 1,000 acres offers a rich diversity of habitats for many species of birds and other wildlife, ranging from wooded uplands to tidal marshes. The trail, a roundtrip total of 3 miles, provides a memorable hike through coastal Virginia scenery. The Nature Conservancy owns and manages this natural area, and welcomes low-impact recreation such as hiking, bird/wildlife watching, and photography.

The Nature Conservancy
Protecting nature. Preserving life.™

NATURAL HERITAGE

The Brownsville Preserve, although having significant natural values, is regarded as a community icon of a different type of natural heritage. It is a place where Europeans and Native Americans alike sustained themselves for centuries, harvesting shellfish and other items from the productive marshes and food crops from the rich soils. Brownsville also showcases how the effects of sea level rise are changing the seaside landscape because this farm was used for agriculture until 2006 when it became increasingly impractical to continue farming due to saltwater intrusion. The landscape here is ideal for highlighting the values and the accessibility of nature, the sort of which has become all too rare on the East Coast.

The Nature Conservancy
The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends

Black-crowned Night-Heron

Want to know more?
The Virginia Coast Reserve is one of Virginia's Last Great Places protected by The Nature Conservancy. For more information about how you can help us preserve natural legacies like this one, please contact The Virginia Coast Reserve at (757) 442-3049 or visit *nature.org/vcr* on the web.

What you will see on the trail
(look for numbered markers)

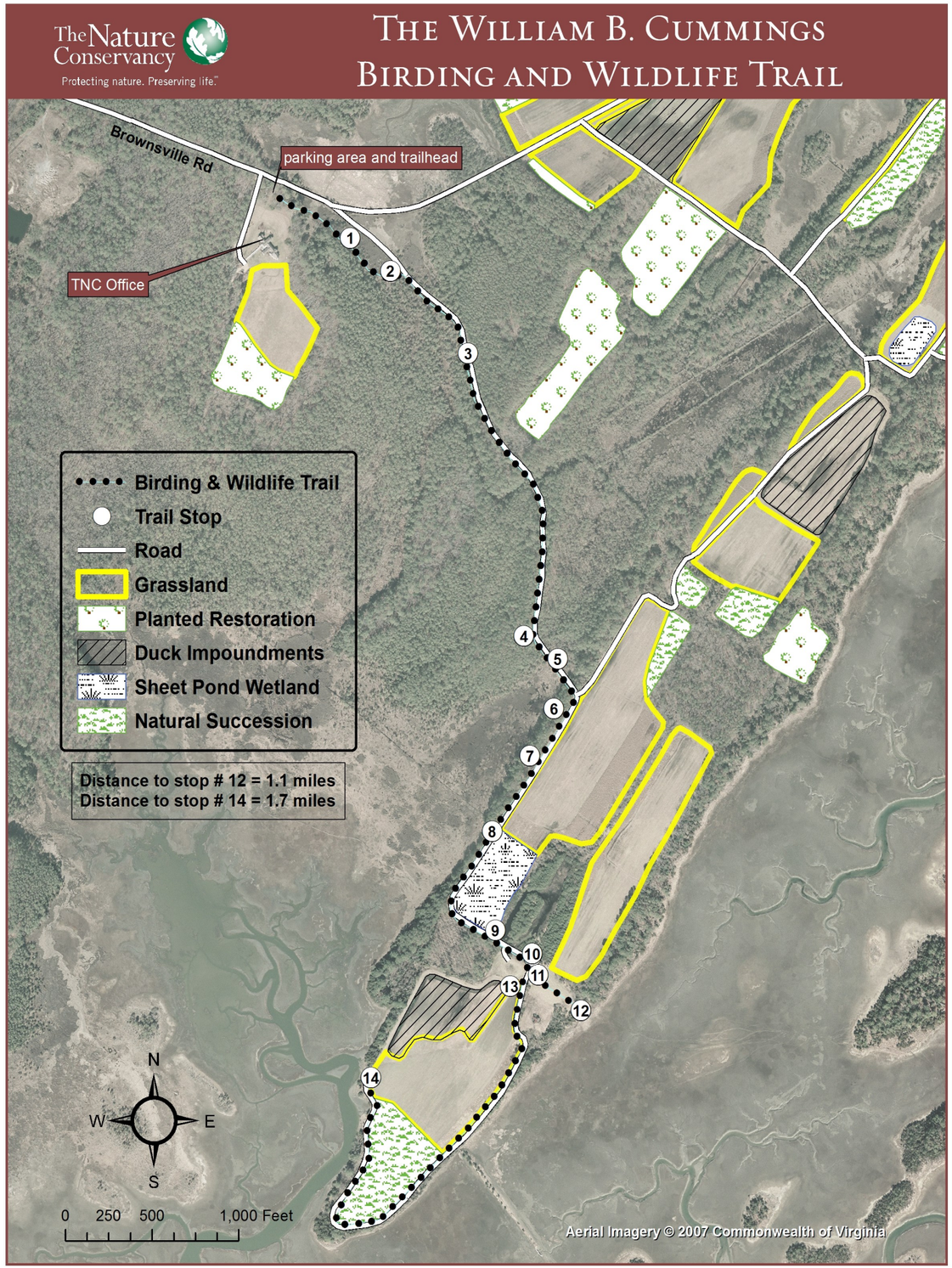
1 – High Marsh Habitat: This habitat occurs at the upper fringe of salt marshes and is dominated by wax myrtle (*Morella* spp), high-tide bush (*Iva* spp), and eastern redcedar (*Juniperus* spp). Unlike the adjacent plant communities upland, the plants here are salt-tolerant and are occasionally flooded by high tides. A variety of wildlife can be found here because it has vegetation with high structural diversity due to its transitional nature. You might see reptiles, raccoons, and nesting common yellowthroats singing their distinctive, "wichity-wichity-wichity."

2 – Habitat Restoration: This part of the marsh has been invaded by invasive phragmites, a non-native wetland grass that crowds out native species, decreasing the wildlife benefits and the overall biodiversity of marshes. The conservancy and natural resource agencies often attempt to control invasive species and restore the natural plant diversity of marshes and other habitats.

3 – Mature Pine-Hardwood Forest: Much of Brownsville's forest land is dominated by loblolly pines in the overstory and sweet pepperbush in the understory. Hardwoods like white oak, sweetgum, black cherry, and American holly are also common in this forest. Wild turkeys, pileated woodpeckers, great-crested flycatchers, and pine warblers are frequently seen. On the Eastern Shore, berries and insects found in these forests are critically important for the survival of birds during the fall migration.

4 – Snags and Cavities: Standing dead trees or "snags" provide important, and often limited, habitat for wildlife. Many different bird species specialize in foraging for insects and larvae that flourish on decaying trees. Woodpeckers excavate holes to make cavities in snags, which they and other animals use for nesting and shelter. Chickadees, owls, flying squirrels, and rat snakes are just a few such species.

5 – Salt Marsh Grasses: This is a good location for viewing the marsh grasses that are common to this ecosystem. The grass closest to the trail is saltmeadow cordgrass (*Spartina patens*), often called saltmeadow hay due to its fine texture and tendency to lay down. The taller, coarser grass that dominates the intertidal marshes and stabilizes the mud flats is smooth or saltmarsh cordgrass (*Spartina alterniflora*). The distinctively darker, grass-like plant that grows closer to shore is black needle rush (*Juncus roemerianus*). You might find tall stands of either the narrowleaf cattail (*Typha angustifolia*) or the common cattail (*T. latifolia*) here. Compared to the narrowleaf cattail, the common cattail has stockier leaves and flower spikes. While both are tenacious growers in many habitat types, the narrowleaf variety tends to tolerate deeper and more saline wetlands.



6 – Retired Agricultural Fields: Following a string of crop failures in these low-lying crop fields between 2000 and 2006, The Conservancy retired the Brownsville Farm from farming altogether and is now managing it for various conservation purposes. Increasing problems with drainage and saltwater intrusion made this farm increasingly difficult to cultivate. Many of the areas are now managed for native, warm-season grasses, which offer a multitude of habitat benefits while preserving the openness of fields. To reduce maintenance costs, some portions of the old fields have been allowed to grow up into trees through natural succession. Some areas have been planted with native trees and shrubs to restore forested habitats.

7 – Greenbrier Thickets: Along the trail, you may see trees and shrubs covered in a dense, impenetrable tangle of briers and vines. It might look like an eyesore, but it's ideal habitat for some animals that use these thickets for shelter, cover, nesting and food. Rabbits, small mammals, and songbirds such as the northern cardinal use them for nesting or denning. Bobwhite quail use these areas as escape cover and migrating warblers depend on them for an assortment of highly nutritious fruits.

8 – Hurricane Effects: Beyond the meadow to the south is an area where a large portion of mature pines were killed by the flooding during hurricane Isabel, in 2003. Saltwater inundation killed many trees along the seaside of the Eastern Shore. For the near future, this area will be packed with snags and littered with dead wood, which is certain to attract wildlife in new and different ways. With the loss of shade from the forest canopy, this forest is undergoing dramatic change in plant composition. The changes taking place here highlight how natural events cause ecosystems to be dynamic. Coastal ecosystems are dynamic due to the influences by storms, tides, and the natural movements of sandy beaches, dunes and barrier islands.

9 – Man-made Wetlands: Shhh! Look quietly over this pond as you approach and you are likely to see black-crowned night herons and common egrets roosting in the pines. This small pond serves as an example of wildlife habitat that can be created around existing or old irrigation ponds. Open water and wetland vegetation provide security from predators and plentiful food resources to many types of birds.

10 – Boardwalk through Young Forest: Given a few years to grow into "weeds," farm fields will go through a natural process called succession, where grasses are slowly replaced by shrubs and young trees. If trees with wind-dispersed seeds grow nearby, they will colonize an old field readily. Otherwise, many woody species rely on mammals and birds to disperse their seeds to new and distant sites. Seeds of the eastern redcedar, wax myrtle and persimmon were carried here in abundance because their fruits are delectable to birds and other animals.