

## Currituck virtual field trip

Remote and untouched by development, the Currituck Banks site is an excellent example of an undisturbed barrier island and low-salinity estuarine system. Ten miles south of the Virginia border and three-quarters of a mile north of Corolla, this site is bound on the east by the Atlantic Ocean and the Currituck Sound to the west.



The easiest access point is the visitor parking area off highway 12. Here you will find a handicap accessible boardwalk that allows access through the maritime forest to the sound side of the reserve.



Currituck Banks is comprised of 954 acres of beach, dunes, upland shrub forest, marsh and sound. The Nature Conservancy and the US Fish and Wildlife Service own tracts to the north. These three sites combined make up 5,000+-acres that are used for research and education.

If you are able to access the site from the beach side of the reserve, you will notice that there are no roads, but plenty signs of vehicles.



Access to homes north of the site are by way of the ocean side beach. There is no through traffic to Virginia, although the small town of Corova sits just south of the North Carolina/Virginia border and can only be accessed by the beach corridor.

On the ocean side a dune system exists that is only disturbed by natural residents, such as fox, deer and rabbits, and the ever-active wind. There is a small herd of feral horses that roam the area. Currituck Banks NERR is the southernmost boundary that these horses can roam free.



*(looking south at Currituck and the Currituck lighthouse)*



Back off the beach past dunes and shrub thickets, an elevated boardwalk allows access through the maritime forest. The woods here are considered maritime forest because of their close proximity to the ocean and the presence of some flora that is somewhat salt tolerant, such as the wax myrtle (*Myrica cerifera*) seen here.



The fence that you see in this area is to keep the local feral herd of horses north – keeping them away from the danger of traffic. You may or may not see them while you are here – don't count on it, as they are a small population and have a large area to roam.

As you begin your walk, you will notice to the left of the boardwalk an unusual trashcan. This was designed to prevent wildlife from getting into the trash – nor can they move the can. There are plenty of raccoons in the area, and hopefully this will keep them out.

As you look around, you will notice lots of live oak (*Quercus virginiana*) trees – short oaks that are very twisted and not very tall. This is one of the most common trees in many of the maritime forest areas in North Carolina. This tree is evergreen and survives the salty sea wind by its thick leathery leaves. Typically the live oak branches form a windswept shape. If you look, you can often see that the trees are shorter on the ocean facing side and taller, more extensive on the side away from the sea wind. This is caused by the prevalent strong winter winds blowing from the northeast.

As you walk along the boardwalk, one thing you may notice is that there are plenty of insects here! Depending on the time of year that you visit, you may find that bug spray is helpful. Summer is a favorite time to see lots of dragonflies.



Continuing through the woods you will notice high areas and low areas; these are old dune ridges. These ridges were formed long ago. Over time, as this part of the barrier island shifted, dunes formed in front of the older dunes and eventually they were distanced from the constantly moving sand/wind area that once formed them. Slowly larger plants and bushes, and eventually trees grew on these old dunes, changing this from a dune habitat to a maritime forest habitat.

Now that these areas of maritime forest are somewhat protected from salt spray by the live oak trees located seaward, there are many more animals that use these areas, including several species of woodpeckers, white-tail deer, and rabbit.



As you make your trek through the forest, notice the colorful interpretive signs along the way, highlighting the plant communities, wildlife and secrets of Currituck Banks.

About half way down the boardwalk, you will notice a primitive trail leading into the maritime forest. Follow the 1 ½ mile out and back trail through pine forests and live oaks as you make your way to a view of the Currituck Sound. Take a rest on benches along the trail as you listen to nature's sounds.



As you move further away from the beach, you will notice there are taller pine trees, protected from strong winds, and then you will walk through an area that is very wet. This marshy area contains a stand of red maples.



The red maple (*Acer rubrum*)-dominated lowland area within the Currituck Banks Reserve is an example of maritime swamp forest, a community type considered "very rare" by the North Carolina Natural Heritage Program (Schafale and Weakley, 1990; page 243)\*. They further note: "Extensive young *Acer-Nyssa* forests on the sound side of Currituck Banks may be developing since the adjacent marshes turned from brackish to fresh with the closing of inlets in the banks."

The red maples found there are taxonomically the same as those elsewhere; this species varies widely in habitats throughout the state. The swamp forest is non-tidal and includes other trees (e.g., swamp black gum, sweetgum), shrubs (e.g., wax myrtle, red bay, cane), vines (e.g., poison ivy, Muscadine grape) and herbs (e.g., royal fern, netted chain fern, lizard's tail, sedges). Soils are mucky, underlain by wet sands that are seasonally to intermittently-flooded or saturated.

Schafale, M.P. and A.S. Weakly. 1990. Classification of the natural communities of North Carolina: third approximation. DENHR/Div. of Parks and Rec./N.C. Nat. Heritage Program. Raleigh

Continuing on the walkway.....

There is a wealth of plant and animal life here, much of which goes easily unnoticed. Some of the shrubs and vines bear fruit that provide food for many of the birds and mammals that inhabit this area. You may see catbrier vines, as well as wild grape vines as you walk along the boardwalk.



At the Currituck Banks site, brackish marshes fringe the edge of the sound -“brackish”, meaning a mix of fresh and salt water. The nearest source of salt water is Oregon Inlet in Dare County, 45 miles to the south. Currituck Sound receives freshwater from a number of creeks draining the mainland, plus irregular amounts of salt water from the inlet. The resulting sound water is classified as brackish, rarely exceeding two parts of salt per thousand parts of water, compared with 35 parts per thousand in ocean water.

These waters are not influenced by regular lunar tides but by wind. This creates considerably different influences than those described under the tidal and supratidal marshes.

Dense colonies of giant cord grass (*Spartina cynosuroides*), spike rush (*Eleocharis obtusa*), black needle rush and cattail (*Typha* spp.) dominate the Currituck marshes. Other marsh species include duck potato (*Sagittaria falcate*), sabatia, (*Sabittia dodecandra*), bulrushes (*Scirpus* spp.), and marsh mallows (*Hybiscus moscheutos* and *Kosteletskya virginica*). Transition to upland vegetation is characterized by a shrub marsh composed primarily of marsh elder and wax myrtle. Hempweed (*Mikania scadnes*) is a vine in the aster family which occurs sporadically throughout the marsh.

These marshes serve as important nesting and foraging grounds for numerous species. Typical birds include the great blue heron, great egret, eastern green heron (*Butorides straitus*), snowy egret (*Egretta thula*), red-winged blackbird and numerous ocean seabirds such as gulls and sandpipers. Mammals regularly feeding in the area include the raccoon, marsh rabbit (*Sylvilagus palustris*), and white-tailed deer (*Odocoileus virginianus*). There is also a non-native mammal found here, the nutria, that feeds on the roots of the marsh plants. It looks similar to a big rat.

There are many reptiles found here as well. Since the sound is relatively fresh, several species of snakes exist such as the corn snake and water snake or other reptiles like anoles and diamondback terrapin turtles.

Depressions within the grassland, shrub thicket or maritime forest communities may contain permanent to seasonally flooded ponds vegetated to varying degrees by marsh plants. The depressions within the Reserve are interdunal swales originally created by wind and water working and reworking deposited sediments. Where low spots intersect with the water table a pond is formed. Low spots just above the water table hold rainwater and runoff until they evaporate. The best developed freshwater marshes of the Reserve are found at the Currituck Banks site, while the other three sites contain isolated seasonally wet areas.



(Pickerel weed (*Pontederia cordata*))

At Currituck Banks typical plants in the ponds include cattail (*Typha angustifolia* and *T. latifolia*), bulrushes, duck potato and pickerel weed (*Pontederia cordata*), mixed with patches of water pennywort (*hydrocotyle umbella*), bacopa (bacopa monnieri), marsh fleabane (*Pluchea purpurascens*), lippia (*Lippia lanceolata*), and diodia (*Diodia virginiana*).

Back on the walkway, just before you reach the sound, you'll reach a kiosk showcasing information about Currituck Banks.



The kiosk provides maps of the area and information about the wildlife you can expect to see. Then proceed to the end of the boardwalk where a spectacular view of the Currituck Sound awaits you.



The deck area not only gives visitors a great view of Currituck Sound, but also a great place to view birds. This area is a great spot to view many migrating ducks and shorebirds in the fall and winter. Historically ducks have been widely hunted here, and there are still some historic hunting clubs around the area. Enjoy viewing osprey's passing by, maybe resting on the osprey pole at the end of the overlook, or reading about the Currituck Sound on the interpretive sign.



Currituck Banks is also part of the North Carolina Birding Trail.



To visit the site, take NC 12 north through Corolla, 1/3 of a mile past the Currituck Lighthouse, pull straight into the visitor parking lot at the sharp turn in the road. Following NC 12 a little further you will end at the four wheel drive ocean beach access ramp within the reserve site. Parking is allowed only on the ocean beach and the parking lot at the boardwalk site. Access along the ocean beach from the north through Back Bay National Wildlife Refuge and False Cape State Park is limited to permanent local residents. The site can also be reached by boating across Currituck Sound.

The hiking trails provide the best access with the least amount of potential damage to the habitats. Visitors should be careful to avoid wet depressions which are very vulnerable to damage from foot traffic. Freshwater ponds within the site are food areas for the wildlife. The nearshore waters of Currituck Sound contain dense beds of aquatic plants, such as widgeon grass, milfoil, tape grass and horned pondweed, which are typical of low-salinity estuaries. Visitors should avoid disrupting these fragile ecosystems.

