

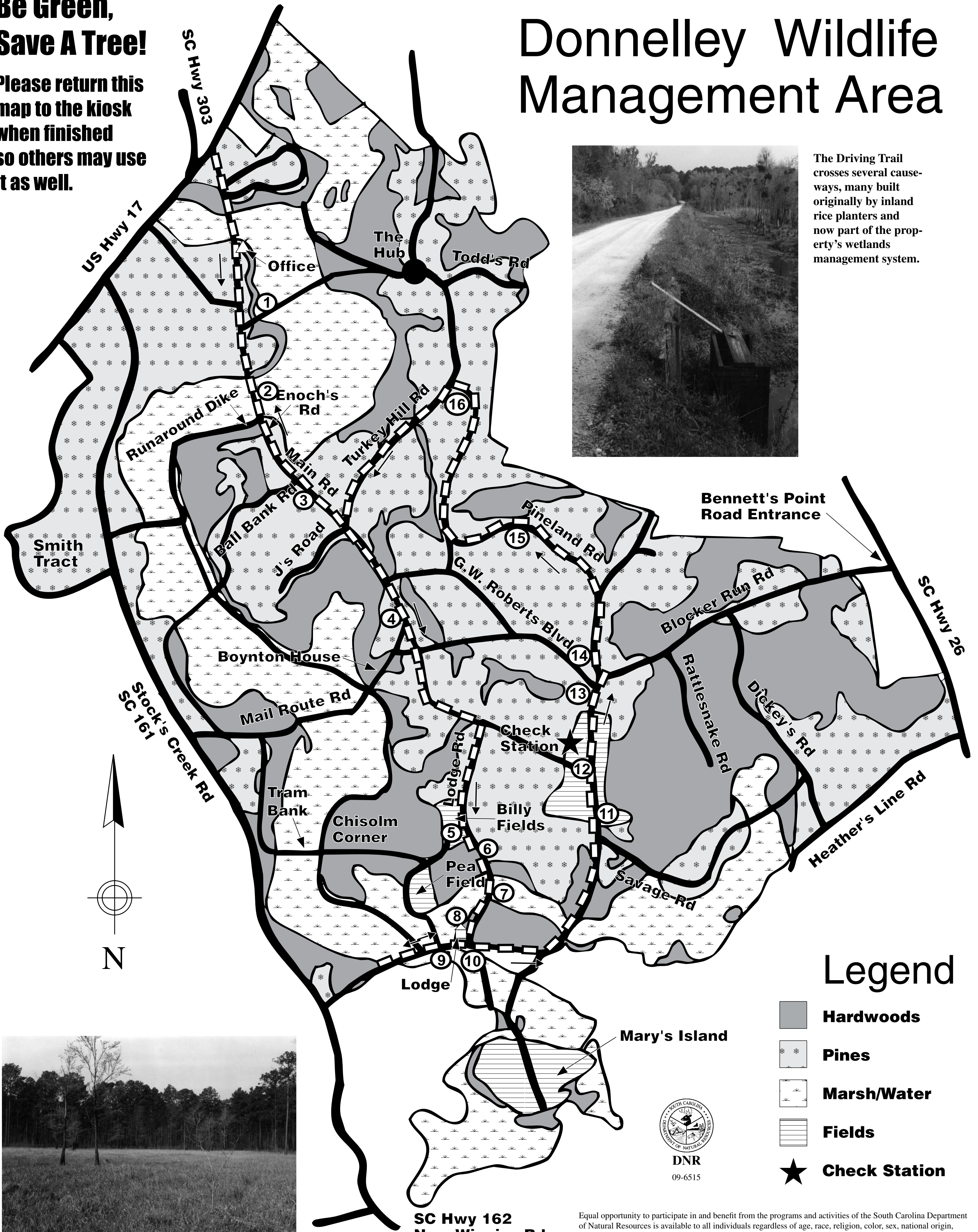
Be Green, Save A Tree!

Please return this map to the kiosk when finished so others may use it as well.

Donnelley Wildlife Management Area



The Driving Trail crosses several causeways, many built originally by inland rice planters and now part of the property's wetlands management system.



Depression meadows of various sizes form over limestone "sinks" and provide important habitat for reptiles and amphibians, because they hold water after heavy rains.



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Donnelley WMA Driving Tour

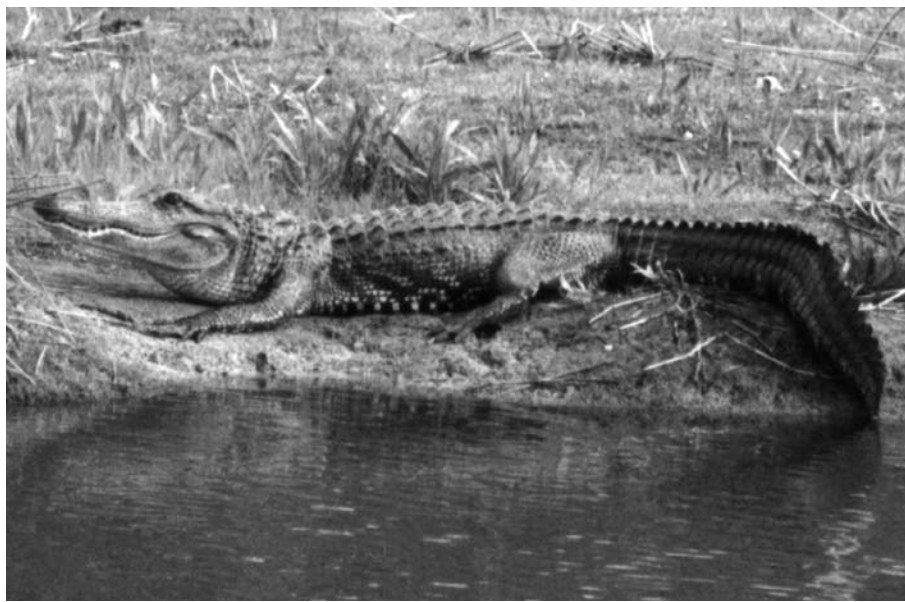
Donnelley Wildlife Management Area (WMA) consists of 8,048 acres in eastern Colleton County near Green Pond, South Carolina. The main entrance lies immediately north of the junction of SC 303 and US 17.

In the heart of the ACE Basin (the collective basins of the Ashepoo, Combahee, and Edisto rivers), Donnelley offers wetland and upland habitats including: managed rice fields, forested wetlands, tidal marsh, agricultural lands and a variety of upland forest types, including a natural stand of longleaf pine. Donnelley WMA provides protection for wetland and upland habitats, demonstrates proper land management techniques and provides the public with opportunities for quality hunting and wildlife observation.

This driving, or cycling, tour covers about 11 miles and should take from an hour to half a day, depending on how many stops you make. The marked stops serve simply as suggestions; feel free to stop anywhere along the way (although please park on the shoulder) and walk off the road at any point to get a closer look at wildlife or native plants.

The tour begins near the Donnelley office and enters the management area via the main road. Tall loblolly pines line this road; these trees were planted in old agricultural fields during the USDA Soil Bank program of the 1950's and early 1960's. In the spring and summer, the yellow blooms of rattlebox, a common plant of pastures, give a hint of the past use of much of this property.

- 1) After just a tenth of a mile, a walking path to the left leads to a dike across an old rice field reserve, commonly called a backwater. Look for herons, egrets, ibises and rails in this freshwater wetland.
- 2) Continuing another 0.4 miles along the main road, cross the long causeway on the lower end of the backwater. The causeway tops an ancient rice field dike, probably first constructed in the 18th Century as part of an inland rice field system. A variety of aquatic plants such as cattails, frog bit and water willow grow along the causeway. What once served as a water reservoir for rice fields now provides habitat for wildlife species including snakes, alligators, frogs, morehens, rails, wading birds and waterfowl.
- 3) About 0.6 miles later, after passing through another natural pine forest, the road borders a stand of young planted pines on the right. Recent thinning of these pines allows more sunlight to reach the forest floor, promoting plant succession considered vital to wildlife habitat. Properly-managed pine forests furnish habitat for white-tail deer, bobwhite quail, wild turkey, songbirds, rabbits, bobcats and many other native wildlife species. On the left side of the road, a natural stand of longleaf pine exhibits how snags are left standing to provide homes for bluebirds, woodpeckers and other snag dependent species. With proper management, the planted pines on the right will one day look like the natural pine stand on the left. The road continues about 0.8 miles past one of numerous wildlife openings maintained on the property. Planted crops such as browntop millet, wheat, rye and sorghums provide supplemental food for turkey, quail, songbirds, deer and other species. Note the young persimmon trees planted inside tree shelters which act as individual greenhouses to protect the young trees from browsing deer.
- 4) Two-tenths of a mile farther, a sign on the right points to the entrance of the Boynton Nature Trail, a 2.2-mile walking trail that circles another part of the old rice field complex. A separate publication, available at the office, describes the excellent viewing opportunities along this trail. Continuing another 0.7 miles on the main road, just beyond a sharp curve, bear to the right at the intersection onto Lodge Road. A large field on the right supplies winter food for many animals such as feral hogs, deer, squirrels, quail, turkey and rabbits. Strips of shrub lespedeza and other planted crops serve as excellent cover for animals to travel or escape predators.
- 5) A short walk down Billy Fields Road on the right leads to a turn-of-the-century home site planted in canna lilies and daffodils underneath huge live oaks. In the fall and winter this area provides excellent habitat for many species of sparrows and other ground-dwelling migrants.
- 6) Continue another 0.2 miles down Lodge Road, where the bottomland hardwoods consist of a variety of canopy trees, including sweet gum, red maple and oaks such as live, water, southern red and cherrybark. The understory layer consists of dogwood, American holly, wax myrtle, dwarf palmetto, panic grasses and pipsissewa. Native Americans once used pipsissewa, also known as "spotted wintergreen," as an herbal medicine.
- 7) The road then crosses another causeway between a freshwater reserve on the left and a brackish impoundment on the right. Wood duck nest boxes on either side of the road provide additional nesting areas for South Carolina's only native breeding species of waterfowl. The causeway offers a good viewing spot for alligators (but please do not park here), shorebirds, wading birds, coots and common morehens, depending on water levels.
- 8) Past the causeway, the road climbs a short grade and winds past the Donnelley WMA Lodge, which the DNR uses for agency meetings. Closer to the road, a wrought iron fence surrounds the burial plot of the Billy Fields family. Other markers lie scattered around the lodge grounds and this area may once have been a church yard. Once past the lodge, turn right onto the road leading to Fishburne Bank, another historic rice field dike which separates the tidally-influenced Old Chehaw River on the left from the rice field system on the right. From October to April, bald eagles, common in the area, may perch in the dead tree in front of the lodge.
- 9) Stop for a moment and inspect the wooden floodgates, part of a structure known as a trunk, which consists of a wooden box, or culvert, connecting the pond with the tidal estuary. Raising or lowering the floodgates (or doors) controls water flow into or out of the wet-



Hundreds of alligators inhabit Donnelley WMA's wetlands, and often sun themselves on the banks.

land. Centuries ago, the early rice planters perfected the use of trunks with the changing tide to manipulate water levels. Today, managers adjust water and salinity levels to provide food and habitat for various ducks such as green-winged teal, northern pintail, American wigeon and black ducks. Wading birds, including herons, egrets and the endangered wood stork, feed on fish, shrimp and crabs that become trapped inside the impoundments. Managing water levels make these foods available to wildlife. Continue across Fishburne Bank, watching for eagles and ospreys. Anhingas and cormorants often perch on the abandoned duck blinds. The rice field system on the right contains hundreds of alligators, which feed on the abundant supply of fish and turtles. On sunny days, even in winter, alligators sun themselves on the banks. At the end of the bank, turn around, and retrace your path toward the lodge. Instead of turning left at the lodge, continue straight through an upland hardwood forest.

- 10) This mostly oak stand provides excellent habitat for many birds, especially wild turkeys as well as warblers and other tropical migrants. Bear left at the next fork (about 0.3 miles) and continue to another rice field reservoir, Savage Backwater, on the right. Far to the right on the last line of trees, the tallest pine contains a bald eagle nest. The road continues 0.6 miles until the forest opens to large, agricultural fields. The weedy border on the edge of the woods provides a transition zone, or edge, valuable to animals entering and leaving the field, and an important nesting area for quail.
 - 11) Primarily planted for public dove hunting, these fields attract not only doves, but also deer, turkey, purple martins, bluebirds, Mississippi kites, loggerhead shrikes, sparrows and other open land creatures. Planted strips of corn, sorghum, sesame, browntop millet, sunflowers and wheat provide food for many wildlife species. At the end of the fields, on the left, stands a majestic live oak which shades the commemorative stone of Ms. Patricia Anne Richardson, whose family owned the property from 1979 until 1990.
 - 12) The wildlife check station, the next building on the left, contains public restrooms and serves as headquarters for public hunts on the property.
 - 13) Continue 0.4 miles past the check station, and stop at G.W. Roberts Boulevard on the left. Just past this road, a donut-shaped earthen ring marks an old tar kiln once used to fire pine logs, removing the pitch. Collecting pitch and tar from pines was an early Colonial industry. Continue on the main road about 100 yards and turn left onto Pineland Road through the heart of a natural pine forest. Hardwood drainages provide habitat diversity and travel corridors for wildlife. Fire lanes are cut throughout the forest to manage prescribed fires. These fires, purposely set and carefully monitored, reduce underbrush and debris, and promote plant succession.
 - 14) After about 0.3 miles note (on the left, about 50 yards off the road) you will see a depression meadow. Depression meadows, scattered throughout the forest, develop as an underlying layer of limestone dissolves. Since the limestone layer lies well beneath the surface, only shallow depressions result. Rain water collects in these basins, limiting plant succession to grasses, with immature sweet gums bordering the edges. During dry periods, prescribed fire slows succession and prevents it from passing to the next level. Without fire, succession would continue, and the area would soon be covered with trees. Depressions provide excellent habitat for many of Donnelley's 44 species of reptiles and amphibians.
- The meadows also serve as wintering habitat for woodcock and give deer a cool place during hot summers.
- 15) As you continue along Pineland Road, notice the different ages of longleaf pine. The smaller trees have developed through natural regeneration. Being a fire-tolerant species, the immature saplings are rarely affected by moderate fires. The forests on Donnelley are managed primarily as wildlife habitat, yet at the same time they also produce wood products. Forestry operations are planned to ensure maximum benefit to wildlife habitat. No red-cockaded woodpeckers (RCWs) currently inhabit Donnelley WMA due to the lack of older pine stands. Donnelley pine forests, managed for older-aged timber, should produce habitat for RCWs in the future, since these birds require southern pines at least 60 years of age. However, RCWs have very limited ability to colonize new areas, perhaps because they evolved at a time when mature pine forests covered much of the Southeast, offering millions of acres of contiguous habitat.
 - 16) Pineland Road perpendicularly intersects Turkey Hill Road. Note the stand of young longleaf pine just across the intersection. Although more mature loblolly pines than longleaf pines grow here, regular burning favors the much more fire resistant juvenile longleaf pines. Turn left here. A pine/hardwood forest grows on the right side of the road, along with stands of natural longleaf, loblolly and longleaf-loblolly mix on the left. After another 0.9 miles, Turkey Hill Road terminates at the main road. Take a right and you will return to your starting point at the office, a distance of about 1.5 miles.



Ricfield trunks, similar in design to those used by rice planters two hundred years ago, now control water levels in impoundments managed for waterfowl and other wildlife species.

For more information on Donnelley Wildlife Management Area, go to the DNR website (www.dnr.sc.gov).