

Mid-Atlantic Coastal Forests Eco-Region: Endangered Forests and Special Areas

The Mid-Atlantic Coastal Forests stretch from the eastern shores of Maryland and Delaware to just south of the Georgia-South Carolina border. This eco-region is home to some of the most majestic plant species in the United States, ranging from the rare Atlantic white cedar swamps to bottomland bald cypress and gum tree forests. It contains the greatest diversity of freshwater wetland communities in all of North America, with marshes, bogs (including pocosins—an ancient Algonquin word meaning “swamp on a hill”), white cedar swamps, and wet hammocks.

The eco-region ranks among the top ten in the United States and Canada for numbers of reptile, bird, and tree species. In addition, this region is one of the last-remaining strongholds for black bear on the Eastern Seaboard. Bald cypress and swamp tupelo trees tower in the beautiful river swamps and bottomland forests. Abundant cavities in tree trunks and branches are homes to woodpeckers, flying squirrels, and owls. Along blackwater rivers, Atlantic white cedar once formed extensive swamps. In the region’s bogs, carnivorous plants such as Venus flytraps and pitcher plants are now found only in small areas.

Many of the wetlands and bottomland forests have already been converted, and others are highly threatened. The highest levels of habitat loss have occurred in the western part of the eco-region. Here in the upper coastal plain, upland native vegetation has been nearly completely converted. Longleaf pine communities have largely disappeared. Many of the cypress forests have been lost to logging. Wetlands and bottomland forests have been ditched, drained and damaged by river damming, and converted to agriculture and pine plantations. Urbanization and coastal development, such as the construction of resorts, have also taken a heavy toll.¹ Georgia-Pacific’s Endangered Forest and Special Areas mapping process used spatially explicit conservation data from state Natural Heritage Programs and other scientifically credible sources. These forests are on public and private lands. Through this scientific process, Georgia-Pacific has identified those areas where the greatest concentrations of endangered, threatened, and vulnerable species exist.

Alligator River Region (213,000 acres)

In northeastern North Carolina, this remote area is home to incredibly unusual ecosystems where the Atlantic Coast meets the inland pocosin wetlands. This is a region of diverse terrain, including high and low pocosins, bogs, and both fresh and brackish water marshes. In addition, it encompasses rare and inspiring hardwood and Atlantic white cypress swamps. Plant species include pitcher plants and sundews, low bush cranberries and redbays—now under threat by an exotic pathogen. The Alligator River area is home to one of the northernmost populations of American alligators and a thriving population of endangered red wolves.

Croatan National Forest Region (40,000 acres)

Located in the eastern part of North Carolina, between New Bern and Emerald Isle, the Croatan National Forest is bordered on three sides by water—the Neause River, the Bogue Sound, and the White Oak River. It contains both coastal and inland swamp ecosystems. Significant natural features include pocosin habitats, estuaries, and the largest collection of carnivorous plants in any U.S. National Forest. There are also many longleaf pine savannas, in which red-cockaded woodpeckers thrive in abundance. Other notable birds found here include the Bald eagle and Peregrine falcon. Five species of poisonous snakes, including the Eastern Cottonmouth and Diamondback rattlesnakes—along with the American alligator—thrive in this area as well. The Venus flytrap—a species of meat-eating plant found only in the Carolinas’ eastern coastal plains—thrives here. Other local carnivorous plant varieties include the sundew, butterwort, and pitcher plants.

Camp Lejeune Area (1,000 acres)

Camp Lejeune is an active U.S. Marine Corps base north of Wilmington, North Carolina as well as a rich eco-region. This area includes pocosin wetlands, a cypress savanna, and barrier islands where federally protected loggerhead and green sea turtles abound. This important natural place is almost contiguous with the Holly Shelter lands.



Holly Shelter Region (68,000 acres)

Positioned north of Wilmington and the Cape Fear River and nearly contiguous to the Camp Lejeune lands, North Carolina's Holly Shelter region is a vast expanse of longleaf pine savannas, Carolina bays, blackwater streams, and pocosin habitats. This area is also one of the birding gems of North Carolina. It contains over 10,000 acres of longleaf pine forests, much of it old-growth. The open forest canopy provides habitat for early successional species such as Northern Bobwhite and Bachman's Sparrow. One of the state's most important longleaf pine communities can be found here, and Holly Shelter is also one of the best places in North Carolina for Red-cockaded woodpeckers and Henslow's and Grasshopper sparrows. According to the North Carolina Natural Heritage Program, these 68,000 acres are among the most biologically significant land along the entire U.S. Atlantic Coast.

Green Swamp Region (Comprises two areas totaling 60,000 acres)

The Green Swamp is located on the Coastal Plain in southeastern North Carolina, extending over the South Carolina border. The array of wetlands also includes Lake Waccamaw, the Upper Waccamaw River drainage and the Green Swamp Preserve itself. Historically, the swamp extended for more than 300,000 acres. While the swamp itself has been reduced by extensive ditching and draining for pine plantations, it is still an area of significant conservation value.

Though home to large extents of open water and wet areas, the Green Swamp also contains some of the country's finest examples of longleaf pine savannas. These savannas have a diverse herb layer with many orchids and insectivorous plants. Also found here is a dense evergreen shrub bog (pocosin) dominated by gallberry, titi, and sweetbay.

Many of the plants in the Green Swamp benefit from periodic burning. For instance, the cones of pond pines burst and release seeds after being exposed to very high temperatures, while wiregrass vigorously flowers after a fire. Longleaf pine seeds need bare ground to germinate and plenty of sunlight to grow, traits typical of plants that evolved in a landscape with frequent fires. The roots of the grasses and sedges are protected from the hottest fires, as are those of the orchids and insectivorous plants. The area is home to rare animals like American alligator, fox squirrel, Henslow's sparrow, Bachman's sparrow, and Hessel's airstreak butterfly.

Fort Jackson (1,000 acres)

Fort Jackson is a U.S. Army training base in the Piedmont region of South Carolina. It is home to important longleaf pine savannas where the state's only populations of the endangered Smooth coneflower, Rough-leaved Loosestrife, and Red-cockaded woodpecker thrive.

Francis Marion National Forest (8,000 acres)

On the coastal plain of South Carolina, the Francis Marion National Forest is bounded by Santee River, the Intracoastal Waterway, and the Atlantic Ocean. The forest is home to blackwater swamps, with majestic bald cypress and water tupelo trees towering overhead. Here, rare wild orchids, sedges, and lizard ferns thrive. The forest's Wambaw Creek is lined with mature bottomland hardwoods, including oaks, hickories, sycamores, and maples. Red-cockaded woodpecker and Bachman's sparrow can be found here as well.

Congaree Swamp Area (26,000 acres)

The bottomland hardwood forests in the Congaree Swamp are a natural treasure, situated in the Piedmont region of South Carolina near Columbia. The area has the largest intact old-growth bottomland hardwood forest in the United States. The variety of trees is extraordinarily diverse, equaling half the number found in all of Europe.² In addition, the average tree canopy is over 100 feet tall—making it one of the highest in the world. Surrounding areas provide riparian corridors that are important to many of the animal species found here. The region's forests are home to eight woodpecker species, including the endangered Red-cockaded Woodpecker. River otter, bobcat, grey wolf, white-tailed deer, and a variety of snakes including the Cottonmouth can all be found here as well.



Great Dismal Swamp Area (180,000 acres)

The Great Dismal Swamp extends from southeastern Virginia to northeastern North Carolina. It contains Lake Drummond, the largest natural lake in Virginia, at 3,100 acres in the heart of the swamp. Special Areas adjacent to the swamp include three key drainages containing bottomland hardwoods that protect the Chowan, Northwest, and Pasquotank Rivers.

The swamp's vegetation consists of five major forested types and three non-forested types of plant communities. The forested types are pine, Atlantic white-cedar, maple-blackgum, tupelo-bald cypress, and sweetgum-oak poplar. The non-forested types include a remnant marsh, a sphagnum bog, and an evergreen shrub community. Tupelo-bald cypress and Atlantic white-cedar, once predominant forest types here, today account for less than 20 percent of the total cover. Three species of plants are of note—the dwarf trillium, silky camellia, and log fern. The dwarf trillium is located in the northwestern section of the swamp and blooms briefly each year for two weeks in March. Silky camellia is found on the hardwood ridges and in the northwestern corner of the refuge. The log fern, one of the rarest American ferns, is more common here than anywhere else on earth. In addition, more than 200 species of birds have been identified on the refuge, with over 96 of these species reported as nesting on it or nearby. Otters, grey and red foxes, white-tailed deer, black bears, and bobcats call this area home.

Savannah River Site (15,000 acres)

Located on the Upper Coastal Plain of South Carolina, near Aiken, the site is situated alongside the Savannah River. An important forested area, it contains all major upper Coastal Plain ecosystems including old fields, fall-line sandhills, upland hardwoods, pine forests, bottomland hardwood forests, swamp forests, Carolina bays, freshwater streams, and impoundments. The site also provides habitat for a number of sensitive species, including endangered wood storks, Red-cockaded woodpeckers, smooth purple coneflowers, and at least 30 plant species of state or regional concern.

¹ World Wildlife Fund, *Middle Atlantic coastal forests (NA0517)*, www.worldwildlife.org/wildworld/profiles/terrestrial/na/na0517_full.html.

² National Park Service Official Guide, selected text reprinted at www.columbiasouthcarolina.com/congaree.html.



DOGWOOD
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