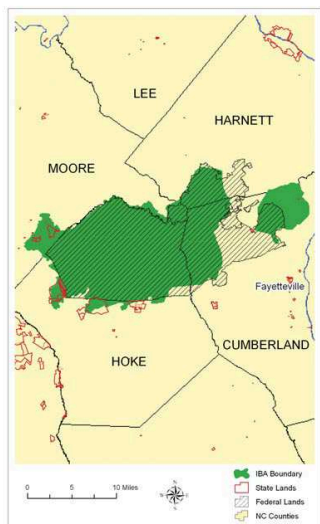
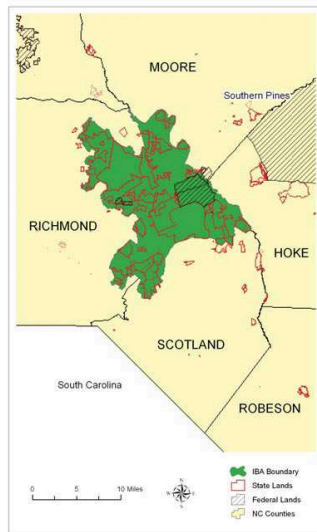


## Sandhills East



## Sandhills West



## Upper Neuse River Bottomlands



## Waccamaw River Bottomlands



The physiographic province known as the Piedmont occupies roughly 35 percent of the state, extending from the coastal plain Fall Line, on the east, to the Blue Ridge escarpment at the base of the mountain region, on the west.

The Piedmont is considered a “plateau,” though it is really a gradually descending (in elevation) plain from west to east, about 457 m (1,500 feet) at the base of the escarpment ranging down to 61 to 91 m (200–300 feet) above sea level near the Fall Line. Metamorphic rocks underlie nearly all of the Piedmont, though a few regions known as Triassic basins were later formed that filled with younger sediments (now sedimentary rocks). As one would expect, the Piedmont does have irregular landforms. In the western section there are outlier “mountain ranges”: these are, from north to south, the Sauratowns, the Brushies, and the South Mountains. East of these are other distinct montane outliers, such as Kings Mountain, the Uwharrie Mountains, and a scattering of other exposed hills, such as Oconeechee Mountain. These outliers, called “monadnocks,” consist of areas of rocks that are more

resistant than the surrounding sediments.

The Piedmont is drained by numerous rivers and streams, generally flowing east and south. Quite a few of them have been dammed in recent decades, such that many dozens of reservoirs now cover the region’s floodplains.

The province’s climate is generally one of warm to hot summers (high temperatures averaging in the upper 80s in midsummer) and cool winters, with midwinter temperatures averaging 50°F for highs and 30°F for low temperatures. Rainfall is rather evenly distributed throughout the year, typically in the range of 102 to 127 cm (40–50 inches) per year. Snowfall is light, typically averaging close to 10 cm (4 inches) near the Fall Line to 25 to 30 cm (10–12 inches) near the mountains.

The Piedmont contains, by far, the largest human population of the state’s three provinces. The Piedmont Crescent extends from Raleigh on the east and runs through Greensboro, Winston-Salem, and Charlotte, continuing south through upper South Carolina to Atlanta, Georgia. Fortunately, other portions of the state’s Piedmont are more thinly settled, and

## North Carolina's Piedmont



Tanager, Wood Thrush, and many others. Bottomland hardwood forests in the Piedmont are home to other neotropical migrant breeders, such as Louisiana Waterthrush, Acadian Flycatcher, Kentucky Warbler, American Redstart, and Prothonotary Warbler. Of course, extensive hardwood forests provide habitat for permanent residents, such as a variety of woodpeckers, in particular the Pileated and Hairy, and raptors such as the Barred Owl and Red-shouldered Hawk.

The Piedmont receives its share of logging activity, and large amounts of land exist in seral stages of forest. Pine forests are common across the Piedmont; they host species such as Pine Warbler, Brown-headed Nuthatch, and Eastern Wood-Pewee in summer, and mixed species flocks (Carolina Chickadees, Tufted Titmice, kinglets, and others) in winter. Early-succession clearcuts are important habitats for neotropical species such as Prairie Warbler, Yellow-breasted Chat, and Blue Grosbeak, and the abundant forest edges and openings are home to large numbers of Indigo Buntings. For poorly known reasons, several permanent resident species are decreasing drastically in our old-field habitats, in particular the Northern Bobwhite and Field Sparrow. However, no

the southeastern Piedmont, centered on the Uwharrie Mountains and the Pee Dee River valley, is heavily forested. The western and northwestern Piedmont also contain extensive forests, particularly as these areas contain foothill ranges that are difficult to develop.

### Birds of the Piedmont

The Piedmont is not as critical to breeding birds in North Carolina as is the mountain region or the coastal plain, in terms of providing habitat for rare or other sensitive species. This is due in part to the fact that the province is rather homogeneous from northern Virginia to eastern Alabama. Because it is situated between the mountains and the coastal plain, it has practically no species that do not nest in either of the adjacent provinces. Nonetheless, because it is sandwiched between the other provinces, it does have a wide array of nesting birds, sharing especially breeders with the coastal plain.

The most important habitats for breeding birds in the province are the various hardwood forests, especially the extensive upland forests found in the foothills. Such forests are home to neotropical migrant breeders such as Worm-eating Warbler, Swainson's Warbler (near the escarpment), Broad-winged Hawk, Hooded Warbler, Ovenbird, Scarlet



birds are in more serious trouble in the Piedmont than the grassland species, which rely on pastures, airports, and other mowed grassy areas for survival. Breeding Bird Surveys have shown steep declines in the Piedmont for the Loggerhead Shrike, Grasshopper Sparrow, and Eastern Meadowlark. Other birds that make use of open lands such as farmyards, groves, and orchards exhibit mixed trends on the Breeding Bird Surveys. Eastern Kingbirds are declining, whereas

Eastern Bluebirds are increasing, thanks to an increase in nesting boxes erected for their use.

Because the Piedmont is the most urban of the provinces in the state, a number of birds dependent on human-created habitats occur in large numbers. Some species are clearly increasing, such as American Robin and Chipping Sparrow, whereas most other "suburban" species such as Northern Mockingbird, Northern Cardinal, and Common Grackle



appear to be stable or even declining. Nonetheless, there is little concern for the overall populations of such urban species.

Another key habitat in the Piedmont is reservoirs and other bodies of water. The province is devoid of natural lakes, with beaver ponds being the only natural source of open standing water. For better or worse, dozens of reservoirs, some up to 32 km (20 miles) or more in length, have been created in the past few decades. This reservoir construction has drastically affected local birdlife. A few decades ago, wintering waterfowl were scarce in the Piedmont, but now ducks and other waterbirds winter in often large numbers as habitat has become available. Migrating shorebirds frequently drop in at reservoirs with exposed mudflats, particularly in late summer and fall. Waterbirds such as Bald Eagle, Osprey, and Double-

crested Cormorant now nest at scattered lakes. A few birds nest under bridges and dams, and the Cliff Swallow breeds in the state, mainly at Piedmont reservoirs.

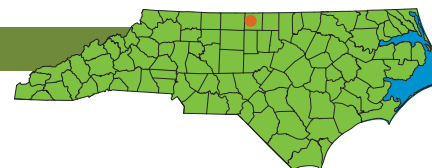
### Conservation Concerns

As the human population continues to expand in the Piedmont, however, more and more bird habitats are being lost. Former croplands and pastures are now rapidly being covered with homes. Upscale developments now place widely scattered homes within extensive forests, further fragmenting the forests. Powerlines and new highways bisect forested areas, reducing populations of birds such as Wood Thrush, now in rapid decline in the region. Fortunately, in the past few decades we have seen a major thrust in conservation, with a number of national and regional land trusts assisting local, state, and national agencies and organizations in protecting lands. The Piedmont now has major areas of protected lands, such as Uwharrie National Forest, South Mountains State Park and Game Land, Umstead State Park, Caswell Game Land, and lands surrounding reservoirs such as Jordan Lake and Falls Lake. Many of the monadnocks are protected, such as Hanging Rock and Pilot Mountain. But more protection work is needed, particularly in the foothills region, where there are still extensive forest lands that are unprotected.





## Caswell Game Lands



**Location:** Caswell County

**Total Size:** 10,658.2 ha (26,337.1 acres)

**Site Description:** Caswell Game Lands is an Important Bird Area in north-central North Carolina near the town of Yanceyville. The site is characterized by rolling hills with heavy clay soils, mixed woodlands, and bottomland hardwood forest. Mixed forest contains all age classes, the oldest being from hardwoods 100 or more years old, while the bottomland hardwoods average 80 or so years. The site contains excellent second-growth hardwood forest. It also has agricultural areas that are rotated for crops that include small grain and legumes. In addition, there are beaver ponds and managed waterfowl impoundments.

**Habitats:** Coniferous forest, mixed forest, bottomland hardwoods, agriculture.

**Land Use:** Wildlife conservation, forestry, hunting.

**Primary Threats:** No major threats, though cowbird parasitism is a potential threat.

**Conservation Issues:** No major conservation issues. Continuing surveys of landbirds during breeding season, migration periods, and winter are needed. Northern Bobwhite calling surveys and Bachman's Sparrow surveys are needed to investigate the game land's global Important Bird Area status.

**Protection Status:** The entire tract is protected and managed by the North Carolina Wildlife Resources Commission.

**Birds:** The site supports the state's largest population of wild turkey and is a key migration corridor for raptors. It also has significant acreage of bottomland hardwood forest that supports breeding neotropical migrant and other songbirds typical of the Piedmont region (Criterion NC4). Many other priority species (e.g., Acadian Flycatcher, Kentucky Warbler) are present in this Important Bird Area and more study is needed to determine population levels. Black Vulture roosts with as many as 500 individuals occur on the site during fall migration. This is likely one of the largest Black Vulture roosts in the state.

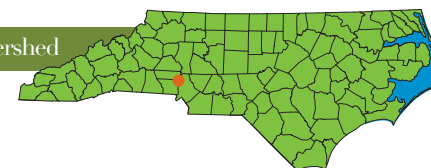
**Monitoring and Research:** As a part of the North Carolina Wildlife Resources Commission's Cooperative Upland Restoration and Enhancement program, this Important Bird Area has been surveyed for gamebirds and landbirds from 2002 to 2006 at 26 regular point count locations. Other research on migration, habitat usage, and other topics has been and is being conducted by the North Carolina Wildlife Resources Commission.

### Key Bird Species

Criterion	Species	Season	Number	Year
3a	Black Vulture	FM	500	2002
2a	Northern Bobwhite	B	9+	2004
2b	Brown-headed Nuthatch	W	57	2004
2b	Wood Thrush	B	39	2004
2b	Prairie Warbler	B	25	2004
2b	Hooded Warbler	B	21	2004

B = breeding; FM = fall migration; W = winter

## Catawba River–Mountain Island Lake Watershed



**Location:** Lincoln, Gaston, and Mecklenburg Counties

**Total Size:** 2,176.2 ha (5,377.6 acres)

**Site Description:** The site includes the bottomland forest and riparian corridor along the Catawba River from Lake Norman to Mountain Island Lake. Tracts along the Catawba River were purchased by Mecklenburg County in 1992 to preserve wildlife habitat and open space and to help provide protection for the water quality of Mountain Island Lake, the primary source of drinking water for the city of Charlotte. The site includes the Mecklenburg County Cowan's Ford Wildlife Refuge. The most significant feature of the refuge is its mosaic of natural community types, including bottomland hardwood forest, that have been left intact along the river.

**Habitats:** Coniferous forest, bottomland hardwood forest, deciduous forest, mixed forest.

**Land Use:** Other conservation, wildlife conservation.

**Primary Threats:** Introduced plants, cowbird parasitism, overbrowsing.

**Protection Status:** Tracts within the area are protected by Mecklenburg, Lincoln, and Gaston Counties, and the North Carolina Wildlife Resources Commission. The remaining land is in private ownership.

**Conservation Issues:** Invasive exotic plant species have spread into many areas. An overabundance of white-tailed deer has caused serious damage to vegetation due to overbrowsing. An obvious browse line is evident in many areas of deciduous and bottomland forest. Past management practices have resulted in forest fragmentation and increased predation by forest edge

predators. Management programs are being implemented by Mecklenburg County and the North Carolina Wildlife Resources Commission to address these issues.

**Birds:** As of February 2009, 206 species of birds have been recorded at Cowan's Ford Wildlife Refuge. From 1996 to 1998, 360 point counts were conducted at Cowan's Ford Wildlife Refuge as part of a habitat selection study of neotropical migratory land birds. Data collected from that study included a total of 115 species of birds, 54 (47%) of which were neotropical migrants. Of the 54 neotropical migratory species, 27 were transients to the North Carolina piedmont; and at least 23 of the remaining species breed at Cowan's Ford Wildlife Refuge. The Catawba River is a well-known migratory corridor.

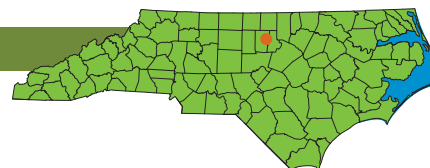
**Monitoring and Research:** Adopt an Important Bird Area volunteers are entering data from this Important Bird Area directly into eBird. In addition, Mecklenburg's Park and Recreation Department conducts wintering and migratory waterfowl surveys, point counts, nest box programs, education and outreach, and other monitoring efforts. These data are stored in the county's own in-house, web-based database system known as "Mecklenburg Wildlife Identification Location and Documentation."

### Key Bird Species

Criterion	Species	Season	Number	Year
2b	American Black Duck	FM, W	50	2000
2b	Wood Duck	B	23	2004
2a	Northern Bobwhite	B	17	2000
3a	Yellow-billed Cuckoo	B	34	1997
2b	Wood Thrush	B	71	2002
2b	Prairie Warbler	B	87	2002
2b	Prothonotary Warbler	B	26	1997
2b	Field Sparrow	B	123	2002
3a	Rusty Blackbird	W	75	2005

B = breeding; FM = fall migration; W = winter

## Eno River Bottomlands



**Location:** Orange and Durham Counties

**Total Size:** 5,077.9 ha (12,547.7 acres)

**Site Description:** The Eno River is located in the central Piedmont of North Carolina, near Durham. Much of the Important Bird Area consists of Eno River State Park, which contains upland and lowland hardwoods, bottomland hardwoods, mixed pine—hardwood areas, pine, and old fields, as well as steep, mesic wooded slopes, which are atypical for the Piedmont of North Carolina.

**Habitats:** River and riparian, mixed forest, rocky cliff, old field.

**Land Use:** Wildlife conservation, other conservation, and recreation.

**Primary Threats:** Residential and commercial development, and sedimentation.

**Protection Status:** Much of the site is protected and managed by the North Carolina Division of State Parks. Local groups like the Eno River Association and Triangle Land Conservancy are working to protect additional areas outside of the park boundaries.

**Conservation Issues:** Residential development near the State Park boundaries, encroachment on the park, fragmentation of surrounding habitats, and sedimentation are all concerns in this Important Bird Area surrounded by urbanization.

**Birds:** This site provides a diversity of habitats and is an exceptional example of alluvial riverine forest with the suite of species associated with this habitat type (Criterion NC4).

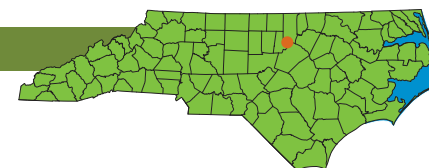
**Monitoring and Research:** North Carolina Division of State Parks currently conducts a Monitoring Avian Productivity and Survivorship banding station in this Important Bird Area at Eno River State Park. Adopt an Important Bird Area activities are getting under way with New Hope Audubon, and these will include point counts and transects in breeding season, migration periods, and winter months. Data collected are being shared with State Parks through the Natural Resource Inventory Database. The Durham Christmas Bird Count circle covers a portion of this Important Bird Area. In addition, portions of the Chapel Hill Bird Club Mini-Breeding Bird Survey route system include this Important Bird Area.

### Key Bird Species

Criterion	Species	Season	Number
2b	American Black Duck	B	—
2b	Wood Duck	B	—
2a	American Woodcock	all	—
2a	Northern Bobwhite	all	—
2b	Whip-poor-will	B	—
2b	Acadian Flycatcher	B	—
2b	Brown-headed Nuthatch	all	—
2b	Wood Thrush	B	—
2b	Northern Parula	B	—
2b	Prairie Warbler	B	—
2b	Prothonotary Warbler	B	—
2b	Louisiana Waterthrush	B	—
2b	Kentucky Warbler	B	—

B = breeding

## Falls Lake



**Location:** Wake, Granville, and Durham Counties

**Total Size:** 22,698.7 ha (56,089.6 acres)

**Site Description:** Falls Lake is located near the center of North Carolina and borders the eastern edge of the rolling hills of the Piedmont plateau. The dam impounds the waters of the upper Neuse River and is located immediately upstream of the village of Falls in Wake County, North Carolina. The drainage area above the dam is 200,000 ha (494,211 acres) with approximately one-third of this area in the Eno River basin, one-fourth in the Flat River Basin, with the remaining drainage area in the Little River basin and numerous smaller tributaries. Although some portions of the project area remain rural in character, the rapidly expanding urban and suburban growth areas of Raleigh surround project lands on the lower third of the project, as do outlying neighborhoods of Durham to a lesser degree in the western part.

**Habitats:** Lake, mixed forest, bottomland hardwood forest, coniferous forest.

**Land Use:** Wildlife conservation, recreation and tourism, water supply, hunting.

**Primary Threats:** Residential and commercial development, introduced plants, disturbance to birds.

**Protection Status:** Lands at Falls Lake are managed by the United States Army Corps of Engineers, North Carolina Wildlife Resources Commission, North Carolina Division of Parks and Recreation, Wake County Parks, Raleigh Parks Department, and North Carolina Botanical Gardens of the University of North Carolina at Chapel Hill.

**Conservation Issues:** Increasing development adjacent to project boundaries is a problem for birds and other types of wildlife. Development results in an increase in edge communities, fragmentation of habitat, and interruption of natural corridors for wildlife movement. Development may also result in pressure from domestic animals, increased sedimentation and runoff, increased recreational use of project land, increased boundary encroachments, and increased land use requests. Exotic and invasive plant species are widespread and should be controlled.

**Birds:** The site includes nearly 1,525 ha (3,768 acres) of bottomland hardwood forests and supports a significant diversity of species typically associated with this habitat type (Criterion NC4). The site also supports a significant diversity of migratory landbirds. At least two pairs of Bald Eagles are known to nest on the lake and up to 40 individuals are present at other times of the year.

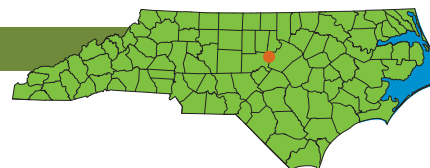
**Monitoring and Research:** Thanks to the efforts of Brian Bockhahn with Falls Lake State Park and his cadre of volunteers, extensive bird monitoring is undertaken at Falls Lake. Monitoring include spring counts, Christmas Bird Counts (Falls Lake circle), fall migration counts, shorebird surveys, Bald Eagle counts, the annual Bioblitz, and Wood Duck, Prothonotary Warbler, and Eastern Bluebird nest box programs, among many other activities.

### Key Bird Species

Criterion	Species	Season	Number	Year
1	Bald Eagle	B	40	2006
2b	Whip-poor-will	B	22	2006
2b	Brown-headed Nuthatch	B	57	2006
3a	Cliff Swallow	B	142	2007
2b	Wood Thrush	B	35	2006
2b	Northern Parula	B	63	2007
2b	Prairie Warbler	B	51	2007
2b	Hooded Warbler	B	36	2007
3g	migratory landbirds	FM, SM	—	—

B = breeding, FM = fall migration, SM = spring migration

## Jordan Lake



**Location:** Chatham and Wake Counties

**Total Size:** 29,582.3 ha (73,099.3 acres)

**Site Description:** B. Everett Jordan Dam and Lake is located in central North Carolina, with much of the state's human population living within a 120 km (75 miles) radius of the project. The Jordan Lake Project preserves thousands of hectares of natural lands in the midst of an expanding urban area. Of this total, 4,239 ha (10,475 acres) have been flooded to form the lake, and 10,025 ha (24,772 acres) are being managed for recreation and wildlife management. The dam impounds the waters of the Haw River and its largest tributary, the New Hope River, which joins the Haw River about 500 m (547 yards) above the dam site. The Haw joins the Deep River 6.8 km (4 miles) downstream of the dam to form the Cape Fear River. Although the lower portions of the project area remain rural in character, the rapidly expanding urban and suburban growth areas of Raleigh and Cary surround the upper reaches of the project to the east and Chapel Hill and Durham to the north.

**Habitats:** Lake, bottomland hardwood forest, mixed forest, coniferous forest.

**Land Use:** Wildlife conservation, recreation and tourism, forestry.

**Primary Threats:** Residential and commercial development, introduced plants, disturbance to birds.

**Protection Status:** The site is protected and managed by the United States Army Corps of Engineers, the North Carolina

Department of Parks and Recreation, North Carolina State University, and the North Carolina Wildlife Resources Commission.

**Conservation Issues:** Increasing development adjacent to project boundaries is a problem for birds and other types of wildlife. Development results in an increase in edge communities, fragmentation of habitat, and interruption of natural corridors for wildlife movement. Disturbance of the Bald Eagles during the nesting season is a concern. Recently adopted water quality standards are being challenged as too stringent.

**Birds:** One of the largest populations of Bald Eagles in North Carolina (four active nests and 10–20 individuals) is found here. Jordan Lake is one of only two nesting sites for Double-crested Cormorants known in North Carolina. Bottomland hardwood forest comprises approximately 20 percent of the total area and supports a significant suite of species typically associated with this habitat type (Criterion NC4).

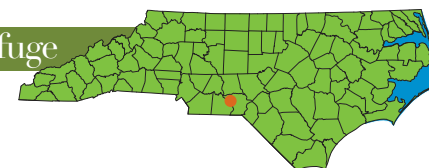
**Monitoring and Research:** A number of regular research and monitoring activities are undertaken, including the Bald Eagle Census by New Hope Audubon Adopt an Important Bird Area volunteers, the Christmas Bird Count (Jordan Lake circle), the Chapel Hill Bird Club Mini-Breeding Bird Survey routes, records in the Natural Resource Inventory Database for State Parks lands, and a variety of other projects.

### Key Bird Species

Criterion	Species	Season	Number	Year
2a	Double-crested Cormorant	B	—	—
2b	Wood Duck	all	39	2004
1	Bald Eagle	all	47	2007
2b	Whip-poor-will	B	11	2007
2a	Red-headed Woodpecker	all	21	2008
2b	Brown-headed Nuthatch	all	53	2005
3a	Cliff Swallow	B	265	2005
2b	Wood Thrush	B	51	2005
2b	Northern Parula	B	81	2008
2b	Prairie Warbler	B	40	2004
2b	Prothonotary Warbler	B	38	2008
2b	Hooded Warbler	B	31	2005
3g	migratory landbirds	FM, SM	—	—

B = breeding; FM = fall migration; SM = spring migration

## Pee Dee National Wildlife Refuge



**Location:** Anson and Richmond Counties

**Total Size:** 4,732.8 ha (11,694.9 acres)

**Site Description:** Pee Dee National Wildlife Refuge is located in Anson and Richmond Counties approximately 10 km (6.2 miles) north of Wadesboro. The site consists of a variety of habitat types along the Yadkin–Pee Dee River. Freshwater wetlands are found throughout and include small creeks, five ponds, one lake, two moist soil units, six impoundments, and one green-tree reservoir. Uplands, including mixed deciduous forests, upland pine forests, old fields and farmland, are found throughout. Pee Dee National Wildlife Refuge was established in 1965 “for use as an inviolate sanctuary, or for any other management purpose for migratory birds.” It is located adjacent to the famous Lockhart Gaddy Wild Goose Refuge, which provided sanctuary for over 15,000 Canada Geese in the 1940s through the 1960s.

**Habitats:** Bottomland hardwood forest, mixed forest, agricultural fields, open fields, managed impoundments.

**Land Use:** Wildlife conservation, recreation and tourism.

**Primary Threats:** Water pollution, energy generation, deforestation and tree cutting, recreational overuse, residential and commercial development

**Protection Status:** Protected and managed by United States Fish and Wildlife Service.

**Conservation Issues:** Water pollution by non-point source discharges upstream on Brown Creek is a major concern to the aquatic environment for all species. A landfill is proposed for upstream. A hog operation nearby on Hurricane Creek spray irrigates. Primarily, the conservation issue with bird management is clear-cutting on adjacent forested lands,

which are then converted to loblolly pine plantation.

**Birds:** For 34 years the refuge has been managed primarily for waterfowl and the Southern James Bay Canada Goose. However, special emphasis has been placed on the neotropical migratory songbirds by establishing, in recent years, a Monitoring Avian Productivity and Survivorship station. Other research and monitoring projects have been conducted for more than 25 years. The 915 ha (2,261 acres) of bottomland hardwood forest is one of the largest and largely intact communities of this type left in the Piedmont (Criterion NC4). The refuge has been managed for endangered Red-cockaded Woodpecker and will continue toward the recovery goal of 10 clusters. Bald Eagles are seen frequently during the winter along the floodplain of the Pee Dee River. Waterfowl have peaked to over 10,000 birds in one season.

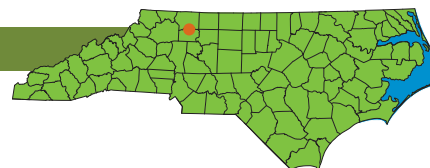
**Monitoring and Research:** Midwinter waterfowl surveys (ground) are now being conducted annually throughout the winter season. Adopt an Important Bird Area volunteers from the Mecklenburg Chapter are active and entering eBird data from the site. They also help conduct an annual Christmas Bird Count that each year turns up good numbers of wintering sparrows, Northern Bobwhite, and excellent counts of Red-headed Woodpecker.

### Key Bird Species

Criterion	Species	Season	Number	Year	Average Number 2005–9
2b	Wood Duck	W	463	2007	330
3b	Mallard	W	5,655	2008	3,449
2b	American Black Duck	W	132	2007	87
3b	Ring-necked Duck	W	1,427	2009	903
2a	Red-headed Woodpecker	all	40	2007	23
2b	Brown-headed Nuthatch	all	44	2006	23
3a	Rusty Blackbird	W	225	2006	72

W = winter

## Pilot Mountain



**Location:** Surry and Yadkin Counties

Total area: 897.1 ha (2,216.9 acres)

**Site Description:** The site is a Monadnock mountain rising 738 m (2,421 feet) above sea level, located in the upper Piedmont in Surry County. The summit and upper slopes consist of steep rocky slopes, 60 m (197 feet) vertical cliffs and ledges, dominated by chestnut oak (*Quercus montana*), pitch pine (*Pinus rigida*), Table Mountain pine (*Pinus pungens*), rhododendron (*Rhododendron maximum*), laurel (*Kalmia latifolia*), fetterbush (*Pieris floribunda*), and blueberry (*Vaccinium corymbosum*). The lower slopes are dominated by oak-hickory forests.

**Habitats:** Mixed forest, piedmont oak-pine forest, rocky outcrops.

**Land Use:** Wildlife conservation, other conservation, recreation and tourism.

**Primary Threats:** Residential and commercial development, air pollution, water pollution, soil erosion and degradation, natural and introduced pests.

**Conservation Issues:** Air quality concerns become evident here on hazy summer days when visibility is diminished, especially to the south toward the urban areas of Winston-Salem and Greensboro. Surveys of landbirds during breeding season, migration periods, and winter are needed.

**Protection Status:** The site is owned and protected by the State of North Carolina as Pilot Mountain State Park.

**Birds:** The site is a key corridor for migrating raptors (1,500–10,000 annually). Counts of migrating raptors began in 1973 and were restarted in 2006. Broad-wings are the most abundant, followed by Sharp-shinned Hawk, Cooper's Hawk, Osprey, Turkey Vulture, Red-tailed Hawk, and American Kestrel. The park is small, but it contains birds more typical of higher elevations in the nearby mountains (Black-throated Blue and Black-throated Green Warblers, for example).

**Monitoring and Research:** Adopt an Important Bird Area volunteers from the Audubon Society of Forsyth County have restarted the annual migration station. Additional records are entered into the State Parks Natural Resource Inventory Database.

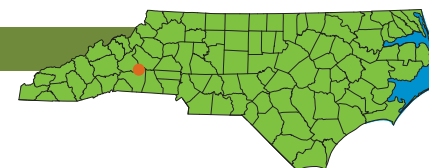
### Key Bird Species

Criterion	Species	Season	Number
3f	Migrating raptors	FM	2,684

FM = fall migration

"Number" represents the average number of fall migrants during Septembers of 2006–9, as reported on the Hawk Migration Association of North America web site at [www.hawkcoun.org](http://www.hawkcoun.org).

## South Mountains



**Location:** Burke, McDowell, Rutherford, and Cleveland Counties

**Total Size:** 18,708.7 ha (46,230.2 acres)

**Site Description:** The South Mountains are located in the foothills region of North Carolina, near Morganton. The highest point is at an elevation of about 915 m (3,002 feet) and is characterized by relatively steep slopes and fairly rugged terrain, with narrow ridge tops and valleys. The majority of the site includes relatively undisturbed forest and nearly 48 km (30 miles) of mountain streams. The site is more like the Blue Ridge Mountains than the Piedmont. South Mountains State Park, established in 1974, includes about 6,758 hectares of unbroken forest, including the Henry Fork and Jacobs Fork Watersheds. Hiking trails provide access for visitors. The State Park receives approximately 160,000 visitors per year. Additional lands surrounding the park are also protected as the South Mountain Game Lands and the North Carolina School for the Deaf and the Broughton Hospital properties.

**Habitats:** Mixed forest, rich cove forest, montane acidic cliff, chestnut oak forest, pine-oak heath, riparian, open field, and acidic cove forest.

**Land Use:** Wildlife conservation, recreation and tourism, other conservation, hunting.

**Primary Threats:** Introduced plants and animals, natural pests and disease, soil erosion and degradation.

**Protection Status:** The entire site is under the jurisdiction of the State of North Carolina – North Carolina Wildlife Resources Commission and North Carolina State Parks and Recreation being the largest landowners.

**Conservation Issues:** Nonnative vegetation, soil erosion from vehicle use.

**Birds:** The assemblage of bird species found in the higher elevations of the South Mountains resembles species typically found in the mountain physiographic province. Common Ravens have nested at High Shoals Falls. At least 60 species have been recorded breeding in South Mountains State Park. The site is of significant acreage and supports a significant diversity of birds associated with the upper piedmont and foothills regions of the state (Criterion NC4).

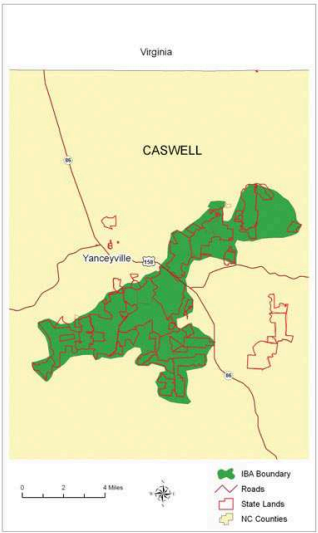
**Monitoring and Research:** Annual (or biannual) point counts have been conducted by Adopt an Important Bird Area volunteers at the state park and by the North Carolina Wildlife Resources Commission on the Game Lands portion of the Important Bird Area. In 2007–8, nightjar surveys were also conducted.

### Key Bird Species

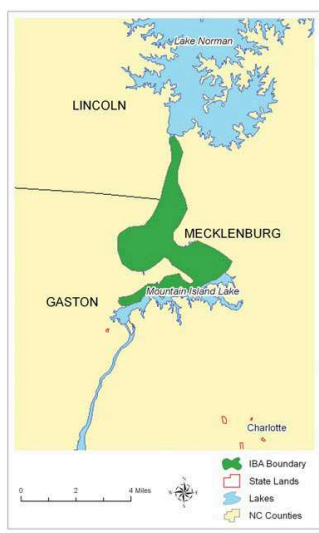
Criterion	Species	Season	Number	Year
2b	Wood Thrush	B	19	2004
2a	Black-throated Green Warbler	B	39	2004
2b	Prairie Warbler	B	45	2003
2b	Hooded Warbler	B	25	2004

B = breeding

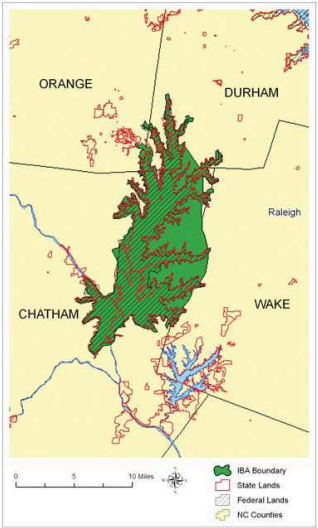
Caswell Game Lands



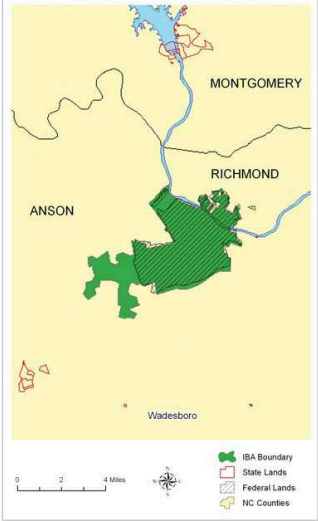
Catawba River–Mountain Island Lake Watershed



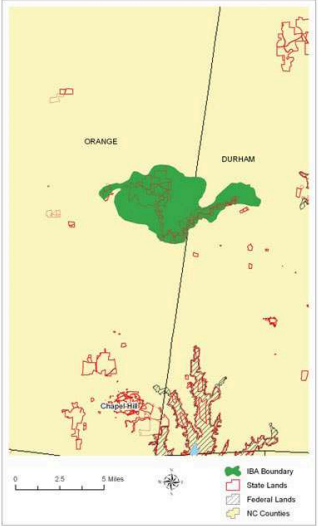
Jordan Lake



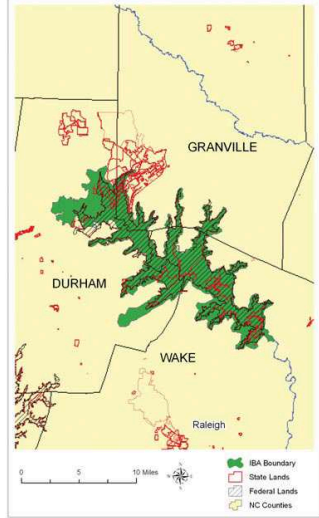
Pee Dee National Wildlife Refuge



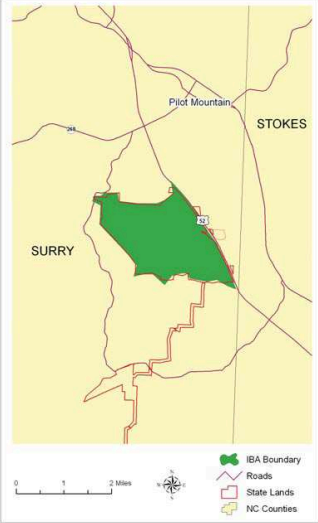
Eno River Bottomlands



Falls Lake



Pilot Mountain



South Mountains

