

# South Carolina's Highly-ranked Neotropical Migratory Birds: Who and Where

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## *A Wildlife Biologist Examines the Status of Four Important Species in South Carolina*

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I hope that most Carolina Bird Club members are by now aware of Partners in Flight (PIF) and its efforts on behalf of all land birds, particularly neotropical migratory birds - the warblers, vireos, thrushes, tanagers, flycatchers, orioles, and others that breed "up here" but spend the winter in the tropics. PIF is composed of biologists, educators, birders, and others from federal, state, and private conservation agencies and organizations. Since its inception in 1990, PIF has focused on management, monitoring, research, and education issues to help migratory land birds. PIF is not an institution, and except for four regional coordinators, has no official staff or headquarters. It does have a structure with many participants, mostly in a volunteer or non-dedicated capacity. PIF has an international, national, regional, and state presence. Both North and South Carolina have State PIF working groups that meet periodically to work on state migratory bird issues.

One of PIF's most important jobs was coming up with a priority ranking system for the nearly 400 species of migrants found in the United States in summer. When dealing with such a large group of birds, it is obvious that some are doing better than others. These species also use a great variety of habitats - all the way from clearcuts to old growth bottomland hardwood forests. The intent of the prioritization scheme was to focus scarce resources - time and money - on species of greatest need. This ranking system for the Southeast has been completed, thanks largely to the efforts of Chuck Hunter, the Southeastern Regional Coordinator for PIF, and with input from many professional and amateur ornithologists throughout the region.

Before any serious conservation efforts on behalf of neotropical migrants can begin, we need to know where they are, what habitats they prefer, and

what the population trends are. This is a pretty daunting task, especially when such basic information as distribution is poorly known for many species. As someone once remarked, "Plotting the distribution of birds usually ends up plotting the distribution of bird watchers." The numerous Breeding Bird Atlas Projects conducted by the various states during the past 20 years were intended to correct this deficiency in bird distribution knowledge. Both North and South Carolina have done Atlas Projects, at least the field work portions. Although South Carolina's Atlas coverage was greatly reduced compared to other states because of observer shortages, our knowledge of breeding bird distribution in the state has increased significantly.

Some CBC members have been participating in a project at the heart of PIF efforts and didn't realize it. The Breeding Bird Survey, sponsored by the US Fish and Wildlife Service (now the National Biological Service), is one of the largest volunteer wildlife monitoring programs in the world, with over 4000 survey routes run each year. With data going back to 1966, the long-term information from this project is the primary source of trend information for neotropical migrants and other North American breeding birds.

But we need to know more, and CBC members can help PIF efforts by keeping track of high-ranking species, especially where birds might be nesting. Management information, such as numbers (density) and habitat use, is also badly needed for these and other neotropical migratory birds.

For this article, I wanted to single out, with a South Carolina coastal slant, four of the highest ranked neotropical migrants in the Carolinas - Black-throated Green Warbler, Swainson's Warbler, Painted Bunting, and Swallow-tailed Kite. I've included maps with what we know about their current breeding distribution in South Carolina.

### **Swallow-tailed Kite**

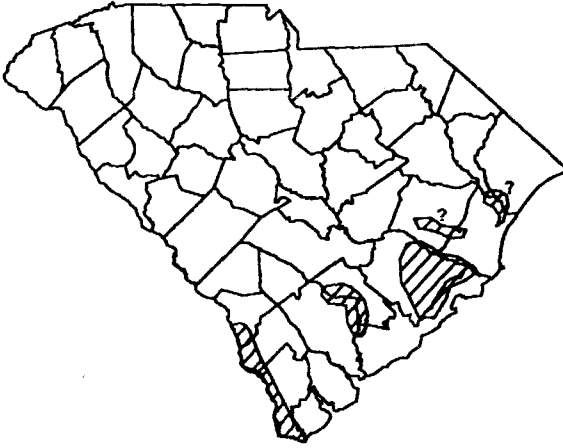
The Swallow-tailed Kite is certainly one of the most striking and spectacular raptors in North America. Its black and white plumage, long forked tail, and aerial acrobatics make it unforgettable. The breeding distribution of this species, which at one time covered 21 states as far north as Minnesota, has been greatly reduced in the 20th Century. South Carolina's Francis Marion National Forest, between Charleston and Georgetown, has the northern-most nesting population in the world.

Probably the most consistent location to see this kite in the Carolinas is the Santee Delta, a two mile-wide stretch of open marsh and waterfowl impoundments at US Highway 17 between the North and South Santee Rivers. The Francis Marion kites leave their forest foraging grounds in the late morning and make regular, sometimes daily, flights (up to 15 miles) to the Delta, where

they may spend an hour or two hawking dragonflies and other flying insects over the marshes. Being a social bird, Swallow-tails usually form feeding flocks of up to a dozen or more, sometimes mixed in with Mississippi Kites (but astounding numbers of more than 100 kites in one flock have been seen here). The best time to be at the Delta is between 11:30 - 2:00 from mid-May through mid-July. The marshes just to the south and west of the North Santee River Bridge are a favored kite feeding location.

Swallow-tailed Kite nesting habitat consists of huge chunks (thousands of acres) of forested wetlands and marshes, mixed with some uplands, clearings, pasture, and other openings. This diverse habitat supports favored food items - small frogs, green anoles, green snakes, dragonflies, grasshoppers, wasp nest grubs, nestling birds, and even bats. The nest tree of choice in South Carolina is a tall loblolly pine (average nest tree height in the Francis Marion is 104 feet) within a wetland. Since Hurricane Hugo knocked down many of these trees, we started finding kites using cypress trees as nest sites. Nests are inconspicuous, near the tree top, and feature generous amounts of Spanish moss in the construction.

Preliminary surveys indicate that the Swallow-tailed Kite population, estimated to be 80 pair at the Francis Marion Forest, dropped about 25% after Hugo, probably from loss of nest trees and foraging habitat. However, for some years before Hugo, we had been receiving reports of Swallow-tails possibly nesting farther north, in Georgetown and Horry Counties along the Black, Waccamaw and Great Pee Dee Rivers. Swallow-tails are notorious for making long-distance, extralimital flights before and after the nesting season. They are regularly seen along North Carolina's Outer Banks, for example, and even into New England. However, kites seen together consistently in one location, in appropriate habitat, especially between late-May through early July, could indicate nesting. The easiest way to document nesting is to be out on the river or other open observation site during the first two weeks in April, when Swallow-tails build their nests and can be seen carrying Spanish moss and twigs in their talons.



**Current Breeding Distribution of the Swallow-tailed Kite in SC**

### **Black-throated Green Warbler**

The Black-throated Green Warbler has one of the most unusual breeding distributions of any songbird in the Carolinas. Like a few other southeastern warblers, the Black-throated Green has a mountain population and a coastal one, with nothing, or very little, in between. The coastal race, sometimes referred to as "Wayne's" Black-throated Green Warbler, is greatly restricted, being found in a narrow strip that extends from just below Charleston up to Virginia's Dismal Swamp. In South Carolina the Francis Marion National Forest was probably the center of abundance for the Black-throated Green before Hurricane Hugo, but that storm apparently eliminated a lot of its habitat.

Our knowledge of Black-throated Green breeding habitat is somewhat ill-defined and occasionally contradictory. Arthur Wayne, the turn-of-the-century Charleston ornithologist who first recognized the coastal population as being distinct from others, found the Black-throated Green Warbler using tall cypress swamps and considered it the "highest ranging" of any warbler in his experience. Although my experiences agree with it being a canopy species, I have never seen a Black-throated Green Warbler in a cypress tree (but Craig Watson of the US Forest Service informs me that he does find Black-throated Greens using cypress trees on the Francis Marion National Forest).

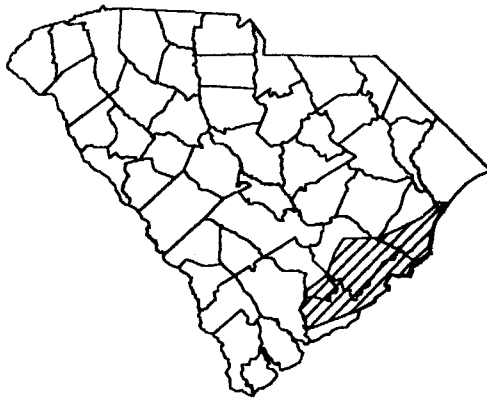
I've found Black-throated Green Warblers in coastal South Carolina mostly in what I call "transitional wetlands" between cypress-tupelo swamps and uplands. Trees used by the warbler in these habitats consisted of red maple, black gum, sweet gum, and loblolly pine. The Black-throated Green is not a

bottomland hardwood species. Merrill Lynch described Black-throated Green habitat in eastern North Carolina, where it is often associated with white cedar trees, as "non-alluvial wetland," which seems to sum it up best.

In South Carolina, Black-throated Green Warblers apparently skip over Horry County and are not picked up again until the pocosin-rich environments of eastern North Carolina. The northern-most nesting record for South Carolina I'm aware of is a pair I watched feeding two recently-fledged young at Huntington Beach State Park, near the Horry-Georgetown County line, on 18 May, 1977. The location, just inside the gate at the visitor's contact station, was not characteristic of the usual Black-throated Green habitat I was familiar with at the Francis Marion National Forest. The Huntington Beach site was drier, with an almost solid loblolly pine overstory with some scattered hardwoods in the understory.

Wayne's Black-throated Green Warbler apparently breeds only as far south as the Edisto River on the Charleston-Colleton-Dorchester County border. Recently, John Gerwin of the North Carolina State Museum and Chris Turner and other graduate students at North Carolina State University found a fair number of Black-throated Greens in some of the extensive forested wetlands in this area.

In addition to refining its range, CBC members could increase our knowledge of this coastal warbler by taking notes on its behavior, habitat use, tree preference, relative abundance, and other biological aspects.



**Current Breeding Distribution of the Coastal Race of the Black-throated Green Warbler in SC**

### Swainson's Warbler

We have learned a lot about Swainson's Warbler distribution and habitat since Alexander Sprunt and E.B. Chamberlain wrote *South Carolina Bird Life* in 1949. The bird had a reputation then of being almost as rare as the Bachman's Warbler, Sprunt having seen only four Swainson's up to that time. We now know the warbler to be more widespread, although never common anywhere. It, too, has the split distribution of some other warblers, being found in the rhododendron-laurel thickets of the southern Blue Ridge mountains and forested wetlands of the coastal plain, with few records from the piedmont.

Bottomland hardwoods and other forested wetlands are places to start searching for this species in the coastal plain. "Electronic ornithology," rare to nonexistent in Sprunt's day, has made it possible to easily locate territorial Swainson's Warblers by the use of song tape playbacks (but please, not overdone). Swainson's prefers a thick understory and shrub layer, generally in the range of 10-15 feet tall, with some larger trees in the overstory. If the site is too thick to move in, or you have to look twice to tell time on your wristwatch, it's probably suitable for Swainson's Warbler. Canebrakes are especially good habitat for the warbler, although a dense thicket of shrubs and vines will do also.

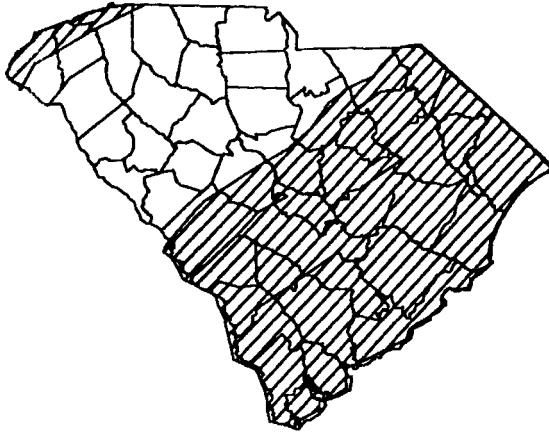
These conditions are often found along river banks and levees, where vegetation flourishes in abundant sunlight. Swainson's habitat is also created by tornadoes and hurricanes, as we found at the Congaree Swamp National Monument after Hugo, where the forest was "opened up" when some of the large overstory trees were knocked down. Certain logging operations create this environment also.

Not all bottomlands are created equal in terms of Swainson's Warbler habitat. Recently, Lex Glover and I finished a breeding bird survey of the Waccamaw and Little Pee Dee River Heritage Preserves in Horry and Marion Counties and found not a single Swainson's on nearly 200 bottomland point counts. Probably the lack of a well-developed shrub layer was the main reason. The typical blackwater cypress-tupelo "muck" swamp rarely supports the thick understory conducive for this species.

Some of the Carolina bays and pocosin swamps that liberally dot the Carolina coastal plain also support Swainson's Warbler. In the same general location of the Waccamaw and Little Pee Dee Heritage Preserves, members of the Waccamaw Audubon Society found Swainson's at Cartwheel Bay Heritage Preserve and other bays in the area. Craig Watson also routinely finds Swainson's on the Francis Marion National Forest.

Like many neotropical migrants, Swainson's Warbler is an "area-sensitive" species, meaning it is only found, at least for long-term breeding purposes, in

large tracts of forested wetlands. Because it is a useful indicator species for conservation of other wetland birds, Partners in Flight is using the Swainson's Warbler for planning purposes.



**Current Breeding Distribution of the Swainson's Warbler in SC**

### **Painted Bunting**

Except for the nearly-extinct Bachman's Warbler, the Painted Bunting is the highest-ranked neotropical migrant in the Carolinas. Although still common in the right location, Breeding Bird Survey trends for this species from 1966-1991 show an annual average decrease of 3%. This translates into a Painted Bunting population decline of more than 50% during this time.

Painted Buntings also have a restricted breeding range. The "eastern" Painted Bunting is found only in the coastal plain of the Carolinas, Georgia, and northern Florida. The "western" Painted Bunting (which may be a separate "look-alike" species according to some authorities) has a much more extensive range extending from the Gulf Coast to New Mexico.

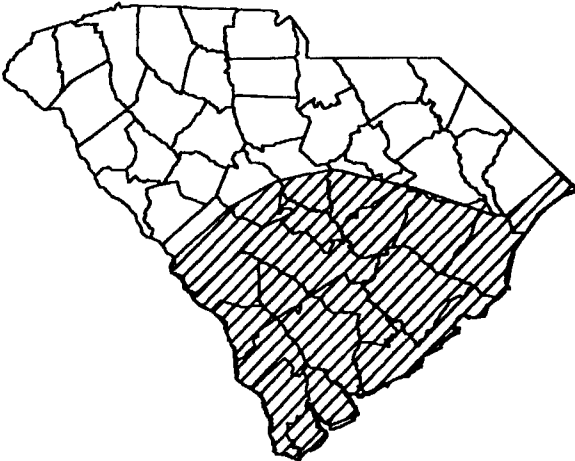
Traditional Painted Bunting breeding range in the Southeast has been the narrow section of coastal barrier island and mainland maritime forest, although it was known to occur in reduced numbers as far north as the South Carolina and Georgia fall line. However, since the South Carolina Breeding Bird Atlas was completed, Painted Buntings have been found extensively in fallow fields, woodland edges, and hedgerow habitat of the inner coastal plain. This is the state's farm belt, and one atlaser felt that there was hardly an atlas block in farming country, at least west of the Santee River, that wouldn't support at least one pair of buntings.

Despite their brilliant, tropical-like plumage, male Painted Buntings can be inconspicuous and unnoticed, even while singing from an exposed power line, where they often appear as a small, dark bird. Being familiar with the song is the best way to determine their presence. The males also respond dramatically to a tape playback.

The coastal range of Painted Buntings constricts sharply in the Pee Dee region of South Carolina, and they are apparently rare to non-existent in Dillon, Darlington, Florence, Lee, and Marion Counties. Even in Horry County, Painted Buntings occur only in a thin strip east of the Waccamaw River.

Although coastal development has no doubt taken a toll on Painted Bunting habitat, Brown-headed Cowbird parasitism seems to have hit this species hard as well. Some birders from the Hilton Head area report they rarely find buntings feeding anything but cowbird fledglings. The Florida Fish and Game Commission has recently undertaken a Painted Bunting Feeder Watch Program to learn, among other things, the extent of cowbird parasitism for this species.

Perhaps competition from another related species whose range has greatly expanded this century, the Indigo Bunting, has hurt Painted Buntings. We conducted bird surveys at South, Bulls, and Capers Island after Hurricane Hugo, expecting the scrub-shrub conditions created by the storm to benefit Painted Buntings. Instead, we found that Indigos, unknown at these locations ten years earlier, outnumbered Painteds on two of the islands.



**Current Breeding Distribution of the Painted Bunting in SC**



### **Conclusion**

Although birders throughout the Carolinas can contribute to our knowledge of these and other neotropical migrants, members of the Waccamaw Audubon Society (in Conway) and the Charleston Natural History Society are strategically located for clarifying the status and range of all four species.

For further information on Partners in Flight efforts in the Southeast, contact Chuck Hunter, US Fish and Wildlife Service, 1875 Century Blvd, Atlanta, GA, 30345, Tel. 404-679-7130; for North Carolina, contact Mark Johns, NC Wildlife Commission, PO Box 564, Cary, NC 27512, Tel. 919-362-9257; for South Carolina, contact John Cely, SC Department of Natural Resources, PO Box 167, Columbia, SC, 29202, Tel. 803-734-3893.

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