

Purple Martin *Progne subis*



Folk Name: Black Martin, Bee Martin

Status: Breeder

Abundance: Uncommon to Fairly Common

Habitat: Open country with man-made gourds or nest boxes

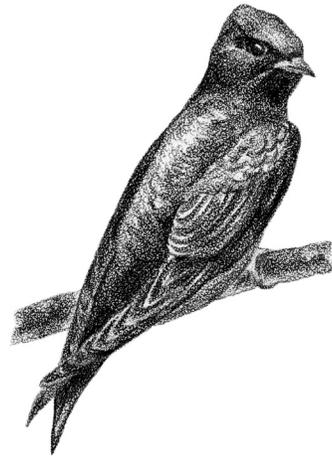
The Purple Martin is our largest and best-known member of the swallow family. It averages a full 8 inches in length. Adult males are a solid iridescent purplish-blue color, both above and below, while females are purplish-blue above and almost all gray below. Like our other swallows, they have slim bodies with long pointed wings. They have a slightly “notched” or “forked” tail. Their old common name of Black Martin was given to them because, under some light conditions, their deep purple-blue color appears to be a flat black.

The Purple Martin is a cavity-nesting species. It once relied on finding natural tree cavities or cavities made by woodpeckers to use for raising its young. Over time, this species became entirely dependent on man-made cavities such as hollow gourds for successful nesting. Historical accounts document the widespread use of gourds by American Indians in the Southeast to attract nesting Purple Martins as early as 1712, and some archeological evidence suggests gourds may have been used for this purpose as far back as the year 1200. Historians have speculated that one reason for this practice was to use martins as natural “scarecrows” to help chase away American Crows from planted gardens. Insect control may have also been important. Early European immigrants adopted this same technique and gourds have been used by farmers and homeowners across the South ever since.

Today, throughout the eastern United States, Purple Martins nest only in man-made gourds or nest boxes,



Purple Martin bringing food to a nestling at a Martin Hotel in Mecklenburg County. (Phil Fowler)



and they nest together in colonies. Humans have entirely altered their natural nesting behavior—a process known as “behavioral tradition shift.” It is important to note that Purple Martins will only use nest boxes that are situated in open areas with plenty of room for foraging, and the nest boxes must also be placed well away from trees and should preferably have water nearby. Nest colonies of 20 or more pairs are not uncommon.

Purple Martins spend their spring and summer days darting through the sky in search of flying insects to eat themselves, or to feed to their young. Martins are touted by many local residents as being an effective control for mosquitoes; however, research shows that they actually prefer to consume larger insects. Also, they primarily eat day-flying insects, while many types of mosquitoes fly at night. In the Carolinas, dragonflies are their preferred food during nesting season.

In July and August, Purple Martins join together in large post-breeding flocks. They soon migrate south and spend the winter in South America. The following spring they return to their same breeding location. Our earliest spring arrival date for the Central Carolina region is 15 February, and our latest fall departure date reported is 27 September.

Post-breeding flocks can be quite large. Two South Carolina state wildlife biologists observed a single flock estimated at over 25,000 birds at Lake Murray on July 31, 1993. Clemson Professor Sid Gauthreaux used weather radar to estimate one flock of martins at 700,000 birds in the state in 1996.

There are many accounts of huge post-breeding flocks moving through the Carolinas in the 1920s and 1930s. In 1921 for the third consecutive summer, a “great gang of wayfarers,” estimated to be “thousands upon thousands,” took possession of the square surrounding the Governor’s

Mansion in Raleigh while the Governor was at Grove Park in Asheville. These Purple Martins created quite a stir and families came out to watch them settle down to roost at night. The editor of Raleigh's *News and Observer* paper exclaimed that "the conversation in the martin language while those thousands of birds are getting settled for the night is not to be outdone even by a women's meeting." This was almost exactly one year after American women had first exercised their right to vote. Four years later, P.M. Jenness and Gabriel Cannon reported "a mighty gathering" of post-breeding Purple Martins on the courthouse grounds in Spartanburg in August. The local newspaper estimated between 5,000 and 10,000 birds were present. The birds had been stopping there to roost each summer for three years, but had grown in numbers. In 1938, *The Chat* published descriptions of five locations of large flocks of migrants along with some of the adverse attention these loud roosts received from local residents who were trying to encourage these birds to leave.

On Thursday June 22, 1876, the *Daily Charlotte Observer* published a report about a nesting colony of Purple Martins in downtown Charlotte. "As usual on Summer evenings, the martins crowd the eaves of the Central Hotel and the tower of Tryon Street M E Church, on which is the city clock, keeping up such a twittering as to inspire yearnings after a shot gun." In Chester County in 1890, Leverett Loomis, remarked that "wherever gourds were put up for their accommodation," Purple Martins would be present.

In 1917, North Carolina's T.G. Pearson, reported that the custom of hanging gourds up on poles was "still in vogue in the South" and "thousands of Martin houses" were provided to accommodate these "interesting birds." He fondly recounted his experience as a boy, when he successfully built up a colony of 15 pairs of Purple Martin nests in a few partitioned soap boxes, which he had hung up near his home.

Competition for nest cavities is a serious limiting factor for Purple Martins. The introduction of House Sparrows and European Starlings impacted martins and other species of cavity-nesting birds. In 1918 (with

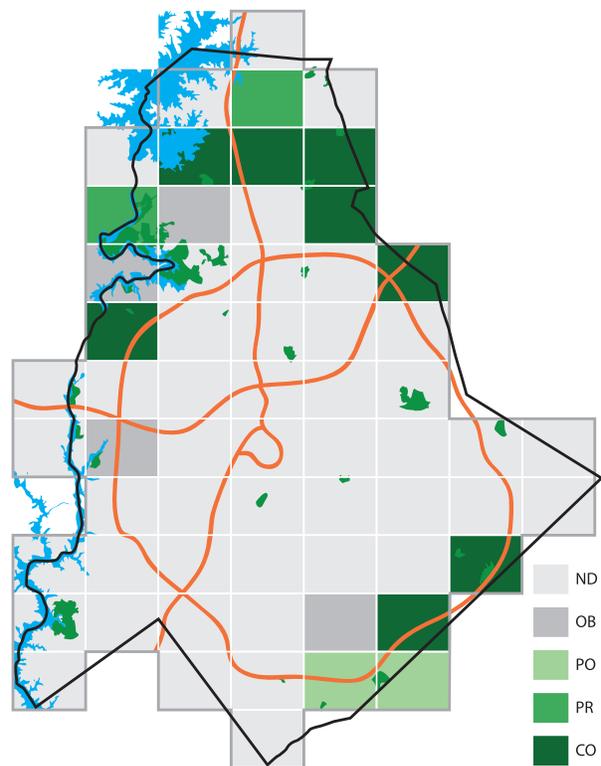


Purple Martin with nesting material in Huntersville. (Jeff Lemons)

several subsequent revisions), the U.S. Department of Agriculture provided citizens a booklet of nest box plans in an attempt to help these birds. In 1932, Billy B. Ward of Davidson, NC, published an account of nesting activities on a farm he owned nearby in South Carolina. He built a USDA-approved white eight-room nest house "with attic" and installed it beside his longtime martin nest gourds for comparison. During two consecutive breeding seasons, Ward observed Purple Martins using both types of houses. However, House Sparrows also used the white house the first year. During the second year, three pairs of Purple Martins were forced to share the white house with three to four pairs of House Sparrows, a pair of European Starlings, and a pair of American Kestrels that took over the attic. Fortunately, House Sparrows and Starlings are not protected by law and their nests can be removed from Purple Martin nest boxes.

Today, many thousands of Purple Martin "landlords" voluntarily provide housing for this species across America. Breeding Bird Survey data indicate the continent-wide population has remained fairly stable for the past 40 years; however, there are areas with serious regional declines. Thankfully, due solely to the truly "heroic" nest box efforts undertaken by local residents, breeding populations appear to be holding steady here in the Carolinas.

Where do our Purple Martins go in the winter? A recent study in South Carolina provided our first look at



Mecklenburg County Breeding Bird Atlas:
Somewhat Local (PR/2, CO/8)

their migration in detail. A male Purple Martin banded at a colony in Sumter (about 35 miles south of Lancaster County) in 2008, was outfitted with a geolocator in 2012. He left his nesting colony on 24 July and arrived on the Yucatán Peninsula, just 2 days later. He reached South America on 7 August and was located deep in the Amazon forest of Brazil on 15 August, where he spent

the winter. On February 15, 2013, he headed north and arrived in Alabama around 26 February and made it back to the Carolinas on 10 March. The scientists tracking this bird believe weather may have forced it to veer west of its original destination and that it took an extra week or so to find its way back to its nesting colony in Sumter.