

Purple Martin Alert

A Long-Term Decline

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Migratory birds are the backbone of the U.S. Fish & Wildlife Service's (Service) federal trust resources. While many people think of waterfowl as the primary species we are entrusted to protect, increased attention is being focused on neotropical migrants.

Purple Martins (*Progne subis*) are neotropical migrating songbirds that overwinter in Brazil, returning to North America each year to complete their breeding cycle. Martins feed exclusively on flying insects, timing their northward migration to coincide with available food sources.

The arrival at their breeding area is also contingent upon finding suitable housing. In the eastern half of this continent, martins have become totally dependent on man for housing. More than one million prospective martin landlords have put up housing to attract this desirable species. Once established, martins develop a strong site fidelity, returning each year to the same nesting site. Martins are colony nesting birds that respond well to management. Unfortunately, despite man's desire to help, Purple Martins are usually managed improperly.

According to the North American Breeding Bird Survey, Purple Martin populations in the northern portion of their range are undergoing a long-term decline. Most states north of the Delmarva peninsula are in this downward spiral, including New Jersey. The factors responsible for the long-term decline are not totally understood, but the reasons can be many, including weather phenomenon, problems in the species' winter range, improper or lack of housing, poor management, or persistent problems with predators. Of special note, is the destructive

potential that the invasive House Sparrow and European Starling have on martin colonies.

The Purple Martin Conservation Association (PMCA) has become the authority on Purple Martins. The PMCA is the only organization devoted exclusively to the scientific study of Purple Martins, their biology, and habitat requirements. Despite the fact that Purple Martins have been managed by humans longer than any other bird species, little research had been done on their reproductive success and housing preferences. Initially, the focus of PMCA's research was on the martin's preference for various house and gourd design variables (e.g., hole size, compartment size, cavity depth, etc.). Other investigations dealt with diet, martin parasites, nest-reuse, nest replacement, nestling growth, porch wandering, predation, clutch size, starling-resistant holes, and other management and record-keeping strategies.

Natural gourds were the first bird houses. Today, gourds continue to make great homes for martins because they avoid many of the weaknesses associated with commercially sold houses. Research has led to the development of the SuperGourd, an oversized plastic gourd that offers design features important for good martin management. The large compartments mean less crowding, less predation, drier nests, and fewer premature fledglings. In fact, studies by the PMCA show that the use of SuperGourds (or large natural gourds modified to include rain canopies and access doors), along with colony monitoring every five to seven days, can double the number of young fledged per nesting attempt.



Adult Male Purple Martin Photo, PMCA

Higher success can also be achieved by modifying existing housing if monitoring and management practices are actively applied by the landlord. In areas where populations are in decline, proper management practices can be the key factor in increasing breeding success.

The Service's New Jersey Field Office (NJFO) recognizes the need to manage Purple Martins according to management guidelines developed by the PMCA. The NJFO is incorporating Purple Martin management into their *Partners for Fish and Wildlife* Program by providing interested and eligible landowners with martin housing in exchange for the promise of proper management. The NJFO is also encouraging Purple Martin management on the Service's five National Wildlife Refuges in New Jersey. Refuges offer excellent opportunities to showcase proper martin management to the public. The Service needs to help reach the people who have an interest in martins, but lack the basic information needed to ensure success for the species. If the long-term decline of martins is to be reversed, the Service must be a leader.

The PMCA's efforts have dramatically increased our knowledge about martins. Guidelines from the PMCA represent the most current Purple Martin management practices. Additional information can be obtained by contacting the PMCA at 814/734 4420 or the NJFO at 609/646 9310, extension 23.

