

Experiences and Innovations: One Landlord's Ideas

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Undoubtedly many Purple Martin landlords must deal with the same fundamental problem that confronts me every year: a limitation on the amount of time that I can devote to the multiple tasks that the martin colony requires. Consequently, I am always searching for better and more efficient ways to solve the many problems that come with establishing and managing a martin colony site. In this article I share some of my own experiences and ideas so that other landlords may be helped with some common problems.

Advantages of, and Improvements for, Natural Gourds.

In 1998, my colony of 94 nesting pairs of martins in central Virginia could select nesting sites from among 146 natural gourds, a Trendsetter aluminum house with 6-inch by 11-inch compartments and starling-resistant entrances, and an unmodified Trio Castle. Significantly, 93 pairs of martins chose to nest in natural gourds, one pair nested in the Trendsetter, and no martins nested in the Trio Castle. Thus, the martins' selection of nesting sites at my colony seemed to support my belief that natural gourds are the martins' favorite (and, in my opinion, best) housing.

Various articles that have appeared in the *Purple Martin Update* have explained the numerous advantages of gourds, such as their large size allowing large broods ample space, the elimination of "porch domination" by male martins and of "porch wandering" and "porch fall-off" by young martins, the insulation value of thick gourd walls, etc. However, in my opinion, the most important advantage of gourds is that they swing back and forth when hung correctly. This swinging motion makes gourds very resistant to owls, hawks, crows, and other flying predators, all of which can easily cling to and



Andrew M. Troyer

Fig. 1. Lance Wood has found that the combination of an S&S Controller, and houses and gourds equipped with starling-resistant entrances, is the most effective way to eliminate starlings as a threat to his colony site. Here PMCA director James Hill removes a starling from an S&S Controller.

ransack stationary martin houses made of aluminum, wood, or PVC.

To further enhance the gourds' predator-resistant quality, I attach (with caulking) an elongated sheet-metal canopy made of aluminum sheathing over the entrance hole of each natural gourd. This makes each gourd practically impregnable against flying predators, excludes rain, and also provides a perching platform that the martins love to use. Because the largest gourds are inherently more predator-resistant due to their size alone, I make their canopies stick out about 4 inches. For smaller gourds, I add canopies that stick out about 6-inches for maximum predator resistance (see Fig. 2). These elongated canopies can also be added to the PMCA's plastic "SuperGourds" to enhance their predator resistance using bonding agents such as "Liquid Nails," and/or sheet metal screws and caulking.

As is true with many innovations, these elongated canopies may also have some potential disadvantages. For example, they must add at least some additional surface

area that increases the total wind resistance of the gourd structure with its gourds, adding somewhat to the structure's vulnerability to windstorms. Nevertheless, because my gourd structures are designed and built to resist wind damage (see Fig. 2), this has not proven to be a problem for me. Also, the elongated canopies probably make it more difficult for martins to sit in the entrance holes of gourds watching the sky for aerial predators. However, in a large colony such as mine, that seems to make no difference, since there are always plenty of martins sitting on top of the gourd canopies, or perched or flying elsewhere around the site watching the sky. One alarm call from any martin "sentry" sends all of the birds into the air. Despite any possible disadvantages, my martins seem to like the gourds

with elongated canopies, and readily select them for nesting. More importantly, the elongated canopies have excluded all rain from inside the gourds. These canopies have also apparently prevented all incidents² of owl or hawk predation on the gourd-nesting martins, even though several pairs of martins nesting in my nearby Trio houses have been wiped out by Great Horned Owl attacks during the same time period. This leads me to believe that the elongated canopies are very useful as both predator guards and rain guards. I currently recommend them, although I would be very interested in hearing from other martin landlords who try them.

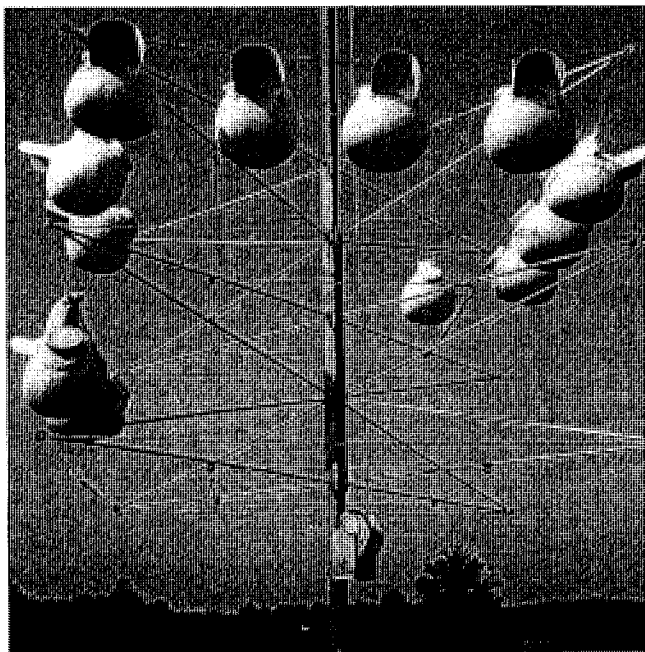
As recommended by the PMCA, each of my gourds is painted white (with elastomeric coating) to reflect heat, and is also provided with a one-half-inch PVC pipe elbow caulked into the gourd near the top to provide rainproof ventilation during hot weather. Each gourd also has a screw-on access door made from the top of a large-mouthed plastic jar. Each gourd is suspended by a two-foot-long piece of plastic-coated metal wire of the sort used for clotheslines. I use 100% silicone caulking to plug the holes where the hanging wire passes through the top of the gourd. This stops rain that channels down the hanging wire that passes through the gourd from dripping onto the nest bowl, while still maintaining flexibility. The plastic coating of the hanging wire effectively grips the vinyl coating of the steel cables on which I hang the gourds (see Fig. 2), so that the suspended gourds do not slip laterally on the cables, although they do swing freely backward and forward, which is important.

An Efficient System to Eliminate Starlings and House Sparrows from the Martin Colony Site

Starlings and House Sparrows are deadly enemies of Purple Martins, and those destructive pests must never be allowed to nest in martin housing. Unfortunately, starlings and House Sparrows are abundant, and show a dogged determination to occupy martin housing, to kill Purple Martins, and to destroy martin nests in the process. Fortunately, I have been able to eradicate the House Sparrow population at my farm from year to year with the two types of House Sparrow bait traps sold by the PMCA (the RBT Repeating Bait Trap and the ST-1 Sparrow Trap). I use cracked corn as bait, keeping a few live sparrows in the traps to act as decoys. I euthanize all others.

Starlings present a much greater challenge since I cannot eliminate them with bait traps. They can be controlled to some

degree with repeated nest removals and shooting, but both of those approaches are time-consuming, shooting is not legal everywhere, and the starlings murder martins and destroy their nests during the time one is trying to discourage them. The most effective and efficient solution to the starling problem now available is that great invention from Andrew Troyer, the "S&S (i.e., 'Starling & Sparrow') Controller" trap (see Fig. 1), sold by the PMCA, and used in combination with martin housing that resists starlings (i.e., starling-resistant entrances). When erected and used according to Andrew Troyer's instructions, the S&S Controller operates as a nestbox trap that will efficiently live-trap and eliminate most starlings from the martin colony site. However, when used in combination with starling-resistant martin housing, it has been my experience that the S&S Controller can eliminate practically all starlings from the martin colony site with very little effort. The essential principle is to ensure that the martin housing is sufficiently unattractive and inconvenient to starlings so that virtually all of them choose to enter the S&S Controller trap. The best way to make all martin housing unattractive to starlings is to provide housing with starling-resistant entrances, as recommended by the PMCA (see pages 10-13 in this issue). Even if some of the smaller starlings might be able to force their way into the starling-resistant entrances of martin housing, they have little incentive to struggle with those small entrances if the S&S Controller trap presents a convenient and attractive alternative nearby. It is also worth noting that many starlings seem repelled by the swinging action of gourds, but are greatly attracted to stationary martin houses with large compartments, so it is especially important to equip the latter with starling-resistant entrances so that the S&S Controller can do its job most effectively.



Lance Wood

Fig. 2. Lance Wood uses a welded steel gourd rack of his own design, mounted on square steel tubing for maximum safety from windstorms. This photo shows the extra long rain canopies he has added to his natural gourds for protection from owl predation. His gourds have also been cut with starling-resistant, crescent-shaped entrance holes 1&3/16" high. The combination of starling-resistant entrance holes, used in conjunction with the "S&S Controller" trap, has been successful in eliminating virtually all starling problems at Lance Wood's colony site of about 100 pairs of martins.

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Lance Wood is an attorney and serves as the Assistant Chief Counsel for Environmental Law and Regulatory Programs for the U. S. Army Corps of Engineers in Washington, D.C. His colony site in Virginia has grown rapidly, from four pairs in 1992, to about 100 pairs in recent years, thanks to his efforts in making many site improvements. He has hosted an annual Purple Martin Field Day and Workshop for prospective landlords for several years. Previous articles by Lance Wood have been published in Updates 6(4): "Spreading the Word: Hosting a Purple Martin Field Day and Workshop," and 7(2): "Protecting Martin Housing from Windstorms."

