

LESSONS FROM THE PURPLE MARTIN FIELD DAYS

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For each of the last fourteen (14) years, Ron and Priscilla Kingston and I have hosted the Purple Martin Field Day at the site of my family's purple martin colony in central Virginia. The people who attend the Field Days enjoy meeting and talking with other bird-loving people, but the real purpose of the Field Day is educational. Our goal is to teach prospective martin landlords how they can establish, grow, protect, and maintain successful purple martin colonies in Virginia and nearby states, using the knowledge on those subjects derived from years of experience (of myself and as provided by the PMCA). One of the most gratifying aspects of recent Field Days is that people who attended the event years ago and put into practice what they learned there, now return and report on their successful and growing martin colonies all around Virginia. In addition, over the years other dedicated bird-lovers, Kathy Laine and Nanette Mickle, have volunteered their time and talents to help us put on the Field Day.

One reason why the Field Days are successful is that the guests sit under shade trees and see a martin colony "in operation" as they listen to the two-hour lecture, and watch the "show and tell" demonstration of martin gourds, effective house sparrow traps, starling traps, climbing animal barriers, etc. Our martin colony now has well over 100 nesting pairs of martins, and by the date of the Field Day in late June the martins are present in large numbers feeding (and beginning to fledge) their young. The pleasure that bird lovers get from seeing and hearing all of that busy martin activity helps to motivate them to undertake the considerable effort required to establish and maintain a martin colony.

Admittedly opinions vary regarding the best ways to establish and maintain a martin colony, and I certainly do not claim "to have all of the answers". Nevertheless, I try to impress on the Field Day guests several fundamental recommendations based on my experience. I advise the prospective landlords to anticipate the most serious problems that are likely to thwart their martin efforts, and to solve those problems in advance (to the greatest degree possible) by making intelligent choices up front. In my opinion, if more martin landlords would take that approach, there would be far fewer reports of martin colonies that have "mysteriously disappeared at night", or that are known to have been destroyed or harmed by climbing snakes or raccoons, owl attacks, windstorm damage, house sparrows, starlings, nest parasites, etc. In my opinion, every one of those serious dangers can be anticipated in advance and in large measure avoided by sensible planning and up-front choices. The great challenge of the Field Day is to convince martin landlords to exert the effort and foresight required to "do it right the first time," rather than take the easy-but-risky approaches that far too many martin landlords settle for. The following are some of my recommendations:

GOURDS MAKE THE BEST MARTIN HOUSING. I strongly advocate that martin landlords avoid all wooden, aluminum, or plastic martin "houses", and provide instead

only natural or plastic gourds, for several important reasons. First, so far as I can tell, most purple martins prefer gourds to all other types of martin housing, so using gourds increases one's chances to attract martins to establish or grow a martin colony.

Second, martin houses are extremely vulnerable to attacks from owls, hawks, and crows, which can easily hang onto the sides and porches of stationary martin houses and pull out the martins inside. In contrast, a martin gourd that is hung so that it will swing from front to back is very resistant to attack from flying predators, since a flying predator tends to be "swung off" and repelled by the swinging motion of the gourd. Moreover, a swinging martin gourd can be made almost entirely invulnerable to attacks from owls, hawks, or crows, if that gourd is outfitted with a five-or-six-inch long "rain-and-predator-guard" made from aluminum sheathing and mounted above the gourd's entrance hole (see photo number 1).

During the last hours of the 2009 Field Day the predator-resistant nature of my martin gourds was demonstrated to the guests by a Cooper's hawk, which saw young martins sticking their heads out of their gourd, and decided to attack them. When the hawk flew up to the gourd, intending to grasp the entrance hole and reach inside to get the martins, it was violently repelled by the swinging action of the gourd and the resistance offered by the sheet-aluminum predator guard, the combined effect of which quickly and decisively thwarted the attack. Although the area of my martin colony has an abundance of owls (e.g., great horned owls, barred owls, screech owls), which in the past have destroyed martin families nesting in aluminum houses outfitted with so-called "owl guards" made from aluminum dowels, those owls never successfully manage to attack martins nesting in the gourds, all of which are hung to swing back and forth, and are outfitted with sheet-aluminum rain-and-owl guards.

A third reason why I advocate gourds rather than martin houses is that houses are very susceptible to serious infestations of nest mites, blowflies, and other nest parasites, which move from one compartment to another and can kill or weaken young martins. Unless a martin landlord has a martin house with sub-floors, and is willing to place a teaspoon of Sevin dust under each sub-floor, and/or is willing and able to perform frequent nest replacements, martin houses are often overrun with nest parasites. In contrast, the sizeable bottom of every martin gourd can be, and should be, filled with red cedar chips two or three inches deep, which provide a natural way to repel and greatly reduce the numbers of nest parasites. Red cedar chips do not work well in martin houses, because their small, shallow nesting compartments do not hold or retain enough cedar chips to discourage parasites effectively.

A fourth reason why I advocate martin gourds, not houses, is that both natural and plastic gourds are usually large enough to provide much more space for raising large martin families than the small compartments provided by most martin houses. Every martin gourd should be white in color to reflect the heat of the sun, and provided with a rain-proof ventilation hole made from a PVC elbow, so that young martins will not be killed or forced to jump prematurely by excessive summer heat. Every martin gourd should have a starling-resistant entrance hole, which are readily accepted and used by martins.

Of course, it takes a little while for the martins to adapt to starling-resistant holes, but they do that quite successfully after a brief learning period. Any gourd or martin house with obsolete round holes is an invitation to disaster from starling attacks, discussed below.

“NESTED”, THICK METAL MOUNTING PIPES PROTECT MARTIN HOUSING FROM WINDSTORMS. If a martin landlord provides natural and/or plastic gourds for the martins, that raises the important subject of how those gourds (or any form of martin housing, for that matter) can be made available to the martins in a way that will withstand the strong wind gusts that come with spring and summer thunderstorms. Practically every martin house or gourd structure is large enough to present substantial wind resistance, but in my experience many of the suppliers of commercial martin houses provide mounting pipes or poles that are far too weak and flimsy to withstand thunderstorm winds. As a result, many martin nests are destroyed yearly when martin houses blow over and crash.

Several years ago I wrote and publish an article on the wind damage problem in the PMCA Update (see “Protecting Martin Housing From Windstorms”, Vol. , which can be downloaded from the PMCA Website). Here are a few tips from that article, all of the recommendations of which are still sound. First, remember that any wooden post, 4x4, etc., can snap off in a windstorm, thereby destroying all of the martin nests that it supports. In contrast, a properly mounted steel pipe will never break, although it could bend in a windstorm if it is not strong enough for the size of the structure it supports. If a steel pipe supporting a gourd structure does bend in a windstorm, properly hung gourds supported by that pipe will continue to hang more or less upright no matter how far over the pipe will bend, and the martins will continue to use those gourds even though the mounting pipe is bent over.

Second, as explained in the article, every metal pipe that supports a martin structure should be thick and strong, and should be “nested” inside of a larger pipe (sometimes called a “ground socket”) that has been set in the ground within a large block of concrete. The best steel mounting pipes in my colony are made of 1/4-inch thick tube steel nested inside of larger sections of tube steel set in large blocks of concrete. I also use schedule-80 round steel pipe nested inside larger-diameter steel pipes set in concrete. However, when using any round pipes, one must be sure to drill a hole through both the “ground socket” pipe and the longer mounting pipe nested inside, and to insert a strong steel pin through both pipes to ensure that the smaller pipe supporting the gourd structure or house will not rotate or turn during windstorms; such turning causes disaster to nesting martins when they cannot locate their nests.

Of course, many martin landlords will want to buy a reliable gourd mounting system including a strong mounting pipe from a retail commercial source, rather than buying its component parts separately. According to Nanette Mickle, an experienced purple martin landlord, the strongest and best gourd rack and pole system manufactured today is made by Creative Universe Enterprises. In Nannette’s opinion, their strongest and best product is the Super System 36 gourd rack.

EFFECTIVE CLIMBING ANIMAL BARRIERS ARE ESSENTIAL. So far as I know, practically any place where one could establish a martin colony is subject to serious dangers from climbing predators, such as snakes and raccoons. There are no more common and dangerous mis-conceptions than the foolish notions that snakes and raccoons are not present in one's neighborhood merely because those nocturnal hunters are seldom seen, or that martin housing ten feet or more above the ground on a metal pipe or wooden post is safe from climbing predators. Every year many previously thriving martin colonies are destroyed by climbing snakes or raccoons, which can easily climb any sort of pipe or post, and often attack at night, leaving negligent martin landlords baffled about why their martins "suddenly disappeared".

Given the fact that climbing predators will almost certainly attack every martin colony sooner or later, I recommend that every martin pole should be protected by a large predator barrier modeled on Ron Kingston's highly effective "stove pipe guard", a version of which is sold by the PMCA. (See the PMCA catalog, item number). Every one of my own gourd structure mounting pipes is protected by a "souped up" version of the "stove -pipe guard", consisting of a large galvanized steel trash can inverted and mounted on the pipe so that the lowest part of the inverted can is at least three to four feet above ground level. (See photograph .) A snake or raccoon usually tries to climb past that barrier using its ordinary technique of holding on to and climbing the mounting pipe, but that approach merely puts the predator inside the inverted trash can, in which it cannot reach the martins because it is blocked by the solid steel base of the can. It is very difficult for the snake or raccoon to go around the barrier, because the inverted trash can is far too large in circumference for the snake to wrap itself around it, or for the raccoon to wrap its legs around the smooth side of the steel can for climbing. Nevertheless, the lowest part of this type of barrier must be three or four feet above ground level, so that a snake will not reach up from the ground and try to ascend the outside of the can, and so no raccoon will be able to jump from the ground to the top of the barrier and climb up the pipe from there. You will note from the photograph that, in an abundance of caution, on top of each of my inverted trash cans I have mounted a four-foot-square sheet of aluminum or stainless steel that would block the ascent of any snake or raccoon that managed to go up the outside of the steel can.

EFFECTIVE WAYS TO PROTECT YOUR MARTIN COLONY FROM STARLINGS, HOUSE SPARROWS, AND OTHER NEST COMPETITORS. In the long run, it is impossible to have a successful martin colony unless one totally excludes starlings and house sparrows, because those non-native pest birds attack and destroy the martins' eggs and young while the adult martins are away from their nests, and injure or kill the adult martins when they try to protect their nests. Eliminating starlings is relatively easy, so long as one makes use of two great inventions popularized by the PMCA: the starling-resistant entrance hole (SREH), and Andy Troyer's Starling and Sparrow Controller Trap (S&S Trap). So long as every martin gourd and every martin house cavity can be entered only by means of a SREH, a starling finds it very difficult to get into those nesting sites.

At my colony site, every frustrated starling that is excluded by a SREH then notices the inviting, large round hole of the nearby S&S Trap. Every starling goes into that trap, descends unharmed into the waist-level holding cage, and is removed and euthanized by the martin landlord. This highly efficient and trouble-free system only works if every one of the martin gourds and martin house compartments at a colony site is outfitted with a SREH, and if the S&S Trap is mounted near a building or tree near the martin colony site, and if every trapped starling is euthanized. If any one of those three factors is missing, starlings and their depredations can make the life of the martins and the martin landlord a misery, and do much damage to the martin colony.

Because a house sparrow (also known as the English sparrow) can get through any entrance hole that will admit a martin (including any SREH), eliminating house sparrows from the martin colony is more challenging, but still essential. I keep my martin colony completely free of house-sparrows by live-trapping them using the two types of sparrow bait traps sold by the PMCA (see the PMCA catalog page). I bait the sparrow traps with cracked corn and place them directly underneath whatever martin housing the sparrows are trying to claim. Be sure to leave one or more living house sparrows in each trap (providing them with food and water, of course), since those sparrows' noise and activity attract other house sparrows to the trap. Also, the martin landlord needs to wire shut or place a brick on top of the access door of the central holding cage of the otherwise excellent sparrow trap manufactured by the Trio company, since the spring that is supposed to hold that door closed is too weak, and allows trapped sparrows to push it open and escape if it is not wired shut or held shut with a brick.

Especially when one is trying to establish a new martin colony, it is essential that the martin landlord not allow bluebirds, tree swallows, or other native cavity nesting birds to claim or nest in the martin housing, because if they do they will drive off martins that otherwise would nest in the martin housing. To prevent that problem I provide plenty of alternative nesting boxes for bluebirds and tree swallows near my martin colony, and I protect each of those nest boxes with an effective climbing predator guard to thwart the snakes and raccoons. After my martin colony had been well established, on the very rare occasions when a tree swallow has claimed and nested in a martin gourd, that caused no problem for the martins. Tree swallows and bluebirds can be nest competitors, but they do not attack the martins' eggs, young, or adults (unlike the murderous starlings and house sparrows, which do).

We try to cover many other topics at the Field Day, such as using the Martin Dawn Song CD or audio tape to found a new martin colony, where best to site martin housing, etc. But if prospective martin landlords will take the time and trouble to deal in advance with the major problems discussed above, both the martins and the martin landlords would have easier and more successful lives.