

Summertime, Martins and Snakes, Oh My!

After eight years of hosting Purple Martins, I am still plagued with predation that I have not yet been able to conquer. I have tried many types of guards, and they all worked to an extent. However, snakes have been able to get by all of them at one time or another. It doesn't matter if a landlord loses Purple Martins to a starling, House Sparrow, or a snake—not to mention a hawk or an owl, the feeling is the same. Your bird flew so many miles to return to your backyard, only to die from predation. It is an awful feeling.

After 11 snake attempts that I know of in 2005, and

at least five more attempts in 2006, I have finally figured out how they can get by the many guards I have used over the years. I was able to photograph how snakes can get by some predator guards. At the time of the attempt documented here, the young had all fledged, so there was no urgency to remove the snake, giving me a chance to observe it in action. Most of the snakes have been 3-4 ft. long, although we do have larger snakes around. After watching an attempt and recording the event, I catch the snake and release it in the woods by the river, about 1/2 mile away. Yellow rat snakes are usually slow moving, very docile and easy to handle. I use gloves so they won't sense the heat of my hand and therefore won't bite. It works very well.

I considered not using the T-14 house at all, as it was the most difficult to protect from snakes, but in 2006 it

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had 16 active nests, 15 of which fledged young. For that reason, I didn't want to lose that house. I have figured out a way to further protect the T-14 for 2007. Here is how I am going to do it: 1) The aluminum guard will be larger in diameter, and placed so the seam of the guard is opposite the side of the pole where the cable runs, as the cable is where ALL the snakes have gone up the pole. 2) I will use rivets on the guard instead of screws. The bottom rivet will be placed higher on the guard while still holding the seam tightly closed right down to the bottom of the guard. An open seam or a gap allows a snake to wedge itself into the opening and continue on up the guard. 3) I will use an additional guard, a 4 ft. diameter aluminum disc, at the lower end of the pole. It consists of two flat, slightly overlapping pieces of aluminum fastened together with four wing nuts. I use a strong string to suspend the disc guard from the safety bolt that runs through the pole just above my head. The

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Fig. 1

Fig. 1: The snake is not wrapped around the cable as it climbs—instead, it is wedging itself between the cable and the wooden pole.



Fig. 2

Fig. 2: When it reached the bottom of the guard, the snake stretched its head out and over the edge of the guard. It used the head of a small pan screw at the bottom of the guard to gain purchase on the predator guard and continued on up. Most of the snakes I've seen climb the cable to the base of the housing and are stopped.



Fig. 3

Figs. 3: The bends in the snake's body show how it uses the predator guard's retaining screws as climbing aids. This allowed the snake to scale an otherwise flat, smooth, vertical surface.



Fig. 4

Fig 4: The 2-piece aluminum disc guard stopped this snake—it's going back down the pole. One snake was able to bypass the disc guard along the seam when the wing nuts & screws that secure it loosened due to wind. The disc guard is removed for nest checks.

disc guard was successful in 2005 except for one episode when the retaining screws loosened a bit, resulting in a small gap in one of the seams on the bottom of the guard. This allowed a snake to breach the guard by going along the gap in the 2' long seam, and then over onto the top. It worked well, but I didn't use the disc guard in 2006, relying instead on the aluminum guard under the housing along with bird netting at the base of the pole, and they both failed.

I had unexplained predation in my three gourd racks last year too, with eggs and young missing. Most of the cavities have crescent, starling-resistant entrances. Next year they will all be either crescents or some other type of



Fig. 5

Fig 5: Here the predator guard worked like it should to keep the snake from getting into the housing. Near the right-hand side of the guard, note the heads of the screws that hold the guard together. They will be replaced with rivets for the 2007 season

guard with rivets and that seemed to end the problem. I am going to use highly polished 6-inch PVC pipe on the three gourd racks in 2007. My goal is to be 100% successful in protecting my site from snake predation. My first season, 1999, I used 4-inch PVC pipe 4 feet tall, had four active nests and no predation. This could have been due in part to having so few martins at my site that year. I like PVC because it is seamless, has a large diameter, and a very smooth surface.

I am in touch with other landlords who lost their entire colonies over the course of 2-3 seasons, and have had no martins return for three years now. They never had exceptional numbers of martins, and allowed House Sparrows to nest at their sites. They can't explain why they don't have any martins. All the information I gave them hasn't impressed them as they still don't have predator guards on any of their martin poles. Most of them told me, "We don't have any snakes here." Go figure!

In conclusion: If you monitor and are pro-active with your colony, even though your site suffers predation, your martins can survive and thrive. Keep in mind that my colony has suffered from snake predation every year except for the first year. And, in 2003 I relocated the entire colony across the street, close to water and into snake territory. My site has grown from 16 compartments, 4 active nests, and 14 young fledged in 1999, to 54 compartments, 53 active nests and 178 young fledged in 2006. You can see from this illustration how your colony can grow even with snake predation. Imagine two things here: what if the colony was not monitored at all; imagine the devastation and eventual loss of the entire colony! And secondly this is a perfect illustration of the responsibility that we all have and quite frankly, enjoy, for the pleasure of hosting our beautiful Purple Martins! Talk about taking ownership of a project/hobby, this is it!

