

Caught on Camera

A Five-Year Battle With a Great Horned Owl

Kathy Freeze
Licking, MO

I started my 2014 Purple Martin season as I did every season – with the highest of hopes that everything would go well. The most I had to wish for was that I wouldn't have to do any supplemental feeding and I wouldn't have to worry about jumpers at the end of the season. I had already reached what I considered my "Goldilocks Colony" status; I had 72 gourds and a 12-cavity Trendsetter house (to which I was very much attached), offering 84 nesting cavities. But by the end of April that year, I had a strong feeling that something was wrong in my colony. I had found a Great Horned Owl feather in my driveway, but really wasn't too worried as it was over 200' from my colony and I wasn't seeing any of the classic signs that everyone talks about (plucked martin feathers in the yard, martins leaving the site right before it gets dark, bent doors, etc.)

What I was seeing were fewer martins in my Trendsetter-12 house. This was unusual because my oldest martins always took up residence there first. After all, it was my first *official*

The tell tale sign- a Great Horned Owl feather.

Purple Martin housing. But something felt off and not quite right with my colony. So, I ordered a game camera and placed it in my yard on April 21, 2014. Every day thereafter, I would retrieve the SD card from the camera and find nothing recorded on it, except the daytime activities of the martins.

I got lazy and around May 3, I stopped the daily retrieval of the card thinking that I was just being paranoid and silly and had read too many posts on the PMCA forum about owl attacks. On Friday, May 9th, 2014 I decided that I really needed to check that card again and I pulled it. But I still didn't review its contents until just before bedtime that night. As I opened the card and saw the timestamps on the pictures, my throat began to tighten and my heart began to pound. I thought, "This can't be. Everything was fine up until now - why am I suddenly seeing timestamps for pictures at 4:23 A.M. for May 6th?" As I viewed the pictures and my brain processed what had happened the night of May 6 (3 days prior), I thought I was going to be sick. I couldn't believe that a Great Horned Owl was attacking my housing. I had bought the Trendsetter because I had been informed that, with its 90-degree turn to get to the nest, an owl can't reach into the cavity to pull martins out nor can it peer in to see a nesting martin. But, as I learned that night, owls are attracted to noise and there had probably been a martin sitting on that porch when she came to investigate. What an owl actually does,

was exactly what this owl was doing - she was beating her wings against the house, attempting to get the martins to flush, right into her talons.

The terror that had arrived at my colony on the morning of May 6th could have been enough to frighten the Purple Martins into abandoning that house. And who could blame them? I would certainly pack my stuff & go if I were them! I wasn't as much worried about them abandoning though as I was about keeping the remaining ones safe. I couldn't justify serving up a buffet to the owls.

I hastily made a post on the PMCA forum with the pictures and was rather surprised to see how many people were still awake and willing to help and provide empathy at such a late hour. I was willing to do whatever needed to protect my colony. It had been three days since that attack, there were no guards on any of the housing or gourds, and there was no telling when she would be back. I was frantic. What if she came back that very night? Was she successful on the night of May 6th? I had no way of knowing. Many good suggestions came rolling in, but there was only one thing I could do at such a late hour - I needed to stay up and protect my colony that night and figure out how to get guards installed on all my housing the next day.

It was quite an experience staying up all night with my martin colony. Owls hunt primarily by sound and I could understand why she was attracted to my

colony. My martins are noisy at night! By 3:30 A.M. the next morning, I could hear the Great Horned Owl (GHO) on the northwest side of my colony, hoot, hoot, hooting away. I was happy as long as I could hear her/him calling, but when she/he became silent, that's when I became worried and started scanning my colony with my spotlight to make sure the owl wasn't visiting. By 4:30 A.M., I could hear my martins in the sky singing their dawn song. The only positive thing the owl gave me - forcing me out of bed during these early morning hours to hear it for the first time. By the next afternoon, I had finally deployed the cage on my housing.

It took about an hour for my martins to adjust and trust it, but they eventually did. We used "Welded Wire Fabric", 2"x4" and cut out a couple of wires to make 4"x4" openings in front of each of the house entrances. I also added undersill trim over each of the larger entrances to make a more bulky landing spot for the martins. By the end of the season, I had 11 pairs of martins and eggs in every cavity of that house, except one. That's a pretty good occupancy rate, given the circumstances.

I had always read about landlords erecting their owl guards and their martins seem to relax after installing them. I thought, "How would you know?" But now I have experienced it - you know. Somehow you know, you feel it and you hear it in their song and see it in their activities.



Great Horned Owl attack on my housing. Note the time above. Dawnsinging starts about this time every morning at my colony, so it is likely that the owl heard the martins and was drawn to the housing.

My 2014 season ended with the same numbers of pairs that I had had in 2013 and almost the same number of nestlings fledged: 75 pair and 324 fledged.

In September, 2014, only a couple of months after all my martins had left, I found an owl pellet in my rock garden on the east side of my house. Something shiny glinted at me from the edge of the pellet. As I pulled the pellet apart, I noticed the tiny white bones in the mix. I read the numbers on the silver Federal Band that we had placed on a nestling as part of a banding operation we did on June 24th 2013 at my site. I also found his yellow Missouri band, with the number, #E049. This Second-Year (SY) male was born here at my site on June 13, 2013, and was banded on 6/24/2013 at 21 days old. He was resighted here on



An owl pellet revealed a band from a martin banded at the site in 2013.



The cage deployed on my housing.

May 4, 2014 and was courting an SY Female in a gourd on a different rack from the one in which he was born. I have no further records where I spotted him this year, so I have no idea at what point he became a meal.

During the winter months from November, 2014 through February, 2015, my husband and I communicated with other landlords who were also experiencing owl problems and had come up with their own solutions (ie, April from Southern Georgia). For my Super System gourd rack with the 3" pole, the solution was easy to design – we drilled some additional holes and added some aluminum ¾" angle brackets to support a wire cage. We also extended the main gourd arms and turned the end gourds inward, placing the gourd porches 13" from the edge of the cage. That would do the trick. Some zip ties, and undersill trim and my housing was now protected.

When Spring of 2015 arrived, I paced the floors and watched the PMCA scout reports as the martins began to migrate north. I was so worried that they wouldn't return to my site ever again.

When the first one arrived on March 15th, 2015, I was overjoyed – cautiously optimistic, but I still wasn't sure what would happen with my colony, so I whispered a quiet, "thank you" and waited. As we moved into April and my colony began to fill up, I was overcome with emotional tears of relief. I had managed to stop a major disaster at my colony and prevented them all from abandoning my site, despite having lost quite a few of them to the owl.

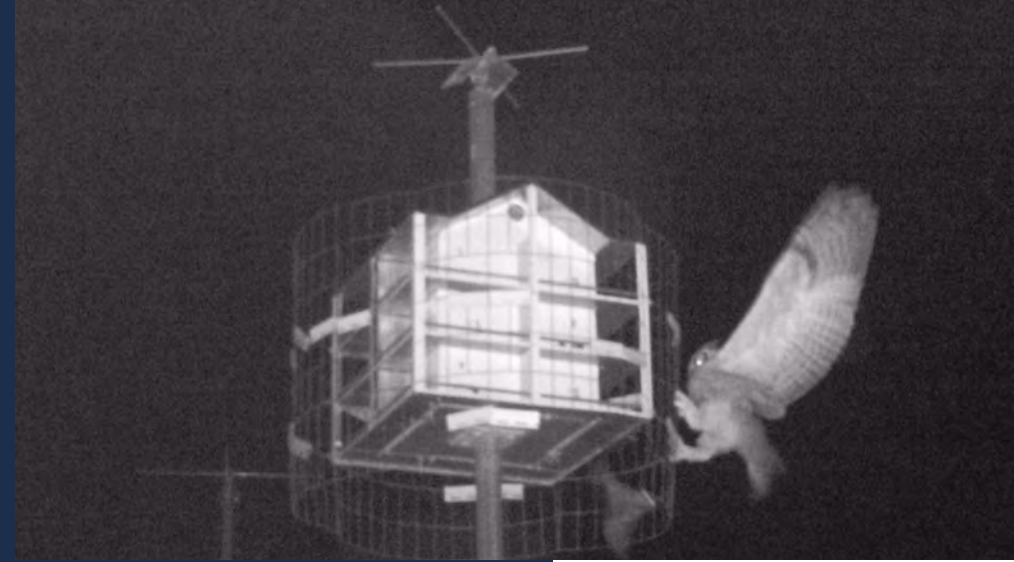
But, I still needed a solution for my round gourd racks that would provide me with solid mounting supports for a wire cage and extend the wire out far enough that the GHO couldn't reach the gourd porches. It needed to be lightweight enough to not cause an unmanageable wind load on the 2" poles and I needed the flexibility to perform nest checks – a necessary task, if I wanted to track my success rate and, more importantly, be able to



put jumpers back where they belonged.

The garden stakes, mounted with zip ties and a wire screen on top only worked for a short time.

We managed to get through the 2015 season with my round racks protected by garden stakes, zip ties, a top wire screen and many sleepless nights using other passive measures. I bought a game camera for each rack so that I could closely monitor the owl's activities and learn how to further deter her, based on whatever new attack scheme she came up with. I also bought a security camera so that I could monitor the entire yard and see from where she was attacking. Using these monitoring devices, I learned all kinds of things about my owl's hunting tactics and what deterrents worked and which ones didn't. For example, I learned that her highest success rates came from attacking my Trendsetter. Even with the cage surrounding it, she would grab it, beat her wings against it and flush the martins out onto the porches, since it was a more stable



platform. A few would flush and fly away before she could catch them.

For the gourd racks, the stakes poking out above all the gourds prevented the GHO from being able to fly directly into the gourds and the wire cage roofs kept her from dropping in from above to snag them off the porches. So, the times that she did attack the gourds, she was forced to fly up from underneath. On those attacks, she was often thrown off balance when the gourd would swing to and fro, not giving her a chance to get a firm grip on the round gourd or the gourd porches.

More importantly, I learned that a lot of myths we've been told are just not true. I learned an owl will indeed hunt in the rain. This GHO never tried to grab on to a gourd and peer inside them. My owl often walked across the yard, stopping under each rack and cocking her head, quietly listening and watching for the opportunity when a martin would exit a gourd or the house and sit on a porch. She would also

land on the tops of my racks and wait for over 30 minutes at times, waiting for them to exit the other gourd racks / housing to dawn.

I deployed a scarecrow – which worked for a couple of weeks and motion detection lights which also helped for a couple of weeks. Eventually however, the owl would get used to whatever passive measure I tried and her desire for an easy meal (especially during dawn-singing hours and when new fledges were out) would overcome her fear of whatever I deployed into my yard.

Still, despite her efforts, we ended the 2015 Purple Martin season with numbers consistent with previous years: 76 pair, 306 fledged.

By spring 2016, we had figured out a solution for my round gourd racks and I ordered some extra-long gourd mounting arms that would help support a cage on each of the round racks.

With all my gourd racks now protected, my GHO became more frustrated and determined. She became hyper-focused on my house and much to my horror, learned to "walk" around the cage, holding on with both feet. By the end of 2016, my patience and stamina were wearing thin. While watching two game camera videos in July, 2016, I discovered my error too late with the cage on the house - it was not extended out far enough from the porches. The GHO was 'walking' around the cage and reaching through to grab martins right off the porches as they exited their nest cavity. I was ready to throw in the towel.

I was often getting up at 3:00 A.M. to scare her off when she came for her early-morning raids. But I also have a full-time job and couldn't be out there every night to stop her and she took full advantage of my absences. The game camera videos were more than I could bear. I could hear their screams as the owl landed near the game camera and killed them.

Sobbing doesn't even begin to adequately describe what I was doing when the videos ended. I was able to deter her from the house for the remainder of the season with some

twine and bottles, just long enough for the remaining martins to fledge their young and end the season. The nest checks for the 2016 revealed that we had 82 pair and fledged 345 young, despite the owl's ongoing assaults.

By January, 2017, I didn't think I could bear to face another Purple Martin summer with a Great Horned Owl in residence. I made a post about my sorrow and despair on my blog and was ready to quit. But a few friends pulled me back from the cliff with their kind words and wisdom. "Bet you still produced a gazillion babies though"! Well, not a "gazillion", but yeah, a lot.

Pulling myself up by my bootstraps, I made the decision to remove my house and replace it with another Super System – a rack that I knew I could protect from the owl's attacks. In June, 2017, I spotted a banded ASY male packing in green leaves in gourd #G20. His band number was A407. There were no words to express how thrilled I was when I reviewed his record. He was originally born and was banded here as a nestling on 6/29/2011, making him six years old in 2017. But what made my spotting of him special - he had also nested in the house for the previous two years. That means that he not only survived all the owl attacks on the house during that time, he also adapted when he returned in 2017 to find a gourd rack had replaced the house. My first message of "Hope" in three years of battle with this GHO - not in a bottle, but in a little yellow band!

I only offered 75 gourds in 2017 since my heart just wasn't into it. Yet, I still hosted 73 pair, and fledged 298 new martins. Not too shabby for a colony under siege. I spent the last five years trying all kinds of passive anti-owl measures. While some of them did work for short periods of time, here is what I ultimately found:

Most Effective Measures:

Unless you can be present in your colony all night to scare an owl away, then physical barriers such as cages are the only measures that work 100% of the time against owls:

- The distance from the gourd/house porch to the edge of the cage needs to be at least 12" - 13".
- The top and the bottom of the cages must be closed off also.

Monitoring

While nest checks will help you determine if you have a successful nest, they won't tell you if you still have both adults or only one adult still feeding young.

A game camera (with infrared lighting and fast "triggers") will help you determine whether you have a problem and if you do, the best measures to take to deter the predator.

Least Effective Measures:

Floodlights: after 5-6 days of shining bright LEDs into the yard, the owl returned. The lights only helped my camera take better pictures of her attacks.

Tunnels: all of my gourds have the extended, Troyer Colony II tunnels on them. Since Purple Martins are very noisy at night, the owl would wait until the martins exited to grab them off the porches.

90 degree entrances: my Trendsetter had 90 degree entrances to the nest cavity, however, the owl never tried to reach into the cavity. She captured the martins as they exited their cavities when she flushed them out on to the porches.

Reflective tape: combined with the bright lights, the owl didn't appear for 5 days after adding reflective tape to the poles. But, she eventually came back around.

Radio: neither the rock-&-roll stations, talk radio nor the Christian network deterred the owl for more than a few days.

Scarecrow: this passive measure came close to scaring her away for the longest period - approximately 3 weeks. I would periodically dress up the same as the scarecrow and sit outside & surprise the owl when she arrived. But I work full-time and that was not sustainable. Eventually, she became immune to the scarecrow.

For the 2018 season, I made some additional improvements after my cameras revealed that my nemesis had learned how to fly up inside the cages.

My husband and I made some 'nets' out of some rope and garden stakes and mounted them to the bottom of the cages, using some quick release clips. The hole sizes are roughly 14"x12" – big enough the martins could easily drop through them in case of hawk attacks, but the owl would have to seriously consider if her next meal would be truly worth it and whether she wanted to risk get tangled up in such a contraption.

I made a video on how we made and mounted the nets to all the gourd racks and posted the video on my website at kathyfreeze.blogspot.com. A fellow martineer and participant on the PMCA forum also donated a "Dancing Man" to the cause. I was willing to try anything and with careful placement and moving him around every 3-4 days, he did help reduce the number of attacks during dawnsong hours. It seemed that he really helped more when I placed him inside a hunting blind, along with a solar yard light and turned him on. The 'Dancing Man' would shoot out the various open windows of the hunting blind, clearly visible due to the light. The noise from the motor probably helped just as much as the weirdness of how I set him up.

Prevention is Key

Landlords should install owl guards (or at least provide monitoring) BEFORE an owl discovers that there is 'food' in their gourds or nestboxes, because once an owl discovers it, he/she will be relentless.

We ended the 2018 season with a total of 76 pair and 310 martins fledged. This was the first time in five years where we only found two piles of feathers in my yard at the beginning of the season (prior to closing in the bottoms of the racks).

Due to the difficulty of performing nest checks on the round racks, I replaced one round rack with another Super System for my 2019 season. After drilling some different holes on the gourd arms and some reorganizing, I now have 28 gourds on each of 3 systems, maintaining my original cavity count of 84. I turned my last round rack into a perching / feeding tray pole.

Looking back at my records and numbers, I am both relieved and proud. It took a lot of hard work, blood, sweat and tears to maintain my colony through all the attacks. I learned a lot about the different anti-owl measures that work, those that don't work and certainly a lot about owls.

This was only possible through the use of game cameras and an outdoor security camera. I have accumulated hundreds of videos and by studying this GHO's tactics, I learned how to best thwart her attacks and save my colony. While I certainly can't protect them from the owls once the martins leave the confines of the cages, the GHO's success rates are significantly lower because now she has to expend the energy to chase them. The cages have also kept the hawks from snagging the martins and fledges off their gourd porches as well. For the first time in five years, I'm starting out a Purple Martin season without one iota of dread. My Purple Martins are as safe as they can be and they know it. My husband is brilliant and has come up with so many ideas to fit our particular situation – some of them have worked, some have not.

I am much more comfortable with knowing my martins are safe now. But I have learned a few things. First, trust your intuition and act on it before something really bad occurs. Everyone should be monitoring with game cameras - pictures and videos provide you with the best information for your site. Apparently, we all live within the range of a Barred or a Great Horned Owl. Don't get lazy. ➔

