

Purple Martin Monitoring – Detailed Information

Please note: The information provided below is for use with houses that raise and lower on poles. The houses in RTP are mounted on wooden poles and must be accessed using a ladder during nesting season. When climbing the ladder to approach the house, tap on the pole to create noise to warn the birds of your approach so they are able to vacate if desired. The roof of each house is easily removable by unscrewing the “chimney” on the roof. After nesting season is complete the box can be lowered by the pivot on the pole for cleaning.

Because of recent research on purple martins, it's now a known fact that birds that are tended by their landlord do much better in rearing young and on my web page, I highly recommend that landlords get involved and do these nest checks. However, two questions I'm asked a lot from people that read these statements are, "How often should I do them and what do I look for?" In this article I'll try to explain what to look for and what to do when something wrong is found.

First, let's ask another question. "What are we trying to accomplish by doing nest checks?"

Well, there are a number of things. Nest checks are an integral part of keeping and hosting purple martins. Because eastern martins are now totally dependent on us humans for their housing, and with all the things that can go wrong in a colony, it behooves us as landlords to know what's happening with our birds. Plus, if there is something amiss in our colony, then we need to be able to first identify and then correct the problem before things get worse. This could be any number of things from simply finding a perfectly normal nest to cracked eggs or a dead baby to possibly finding a nest full of mites or blowflies. You could even find out why a pair of martins is hesitant about entering it's cavity.

The days of being a '**passive**' landlord are pretty much over. A 'passive' landlord is one that simply puts his or her housing up and then ignores it for the remainder of the season, letting the birds do their own thing. This form of martin hosting is no longer valid and with all the pests and predators that are around a colony today, we as landlords have to change. That means becoming an '**active**' landlord, taking an active interest in the colony and the birds and educating ourselves so that we are able to deal with any of the problems that could occur in our colonies. Hosting purple martins is sort of a hobby and hobbies are made to take part in.

This article assumes that you have the proper housing that is easily accessible. If not, now is the time to change. (In fact, ANYTIME is a good time to change). When the

birds are gone for the winter, incorrect housing should be either reworked or replaced with some that is. This also means that gourds should be reworked so that access ports are added, or if you have small gourds, then they should be replaced with some that are 9" or 10" plus, and while you're at it, might as well paint everything nice and white.

Nest checks are very easy to do, plus, they are also fun and interesting. Once a landlord gets over the fear of scaring off his or her birds by invading their nests, then doing nest checks will become second nature in a very short time. Some of the old ways are dying hard, but once we break through the myths that have been handed down through the years, the fears quickly dissipate. And, if we get the young involved early in life, they too will learn to respect and protect nature without being afraid of it.

One of the things you'll need to do is keep good records and to do this, you'll need is a good data sheet. No, these sheets aren't totally necessary, but since you're going to be into the nests, there's no reason not to keep good records. If a colony gets large enough, it becomes very difficult to remember all the things you've seen and where you saw it. Plus, if these data sheets are accurate and well kept, they are highly prized by organizations like the PMCA, and making a copy and sending it to them will help out immensely in their collection of data for future research. It's another tool that can be used to find out more about the species as a whole.

One more thing you'll need is a 12" long piece of 1/4" diameter wooden dowel. Sharpen the end of it **almost** to a point like a pencil. This will be used to push things around in the nest and believe it or not, this is a much better method than using your fingers. Much easier to control plus, it's a lot easier to see by than trying to see around your hand. I drilled a small hole in the end of mine and tied a long string to it and then tie it to my clipboard for safe keeping so I don't lose it. During nest checks, I either stick it in a pocket or simply keep it in my hand. I also made a small, light table that I can carry out to the site. I use it to set my clipboard and other tools on when I'm needing two hands somewhere else. Saves bending down to pick it up all the time. Those little portable folding lunch tables will also work just great for this.

And one last thing. Don't forget to number your compartments. It's the only way you can keep track of which nest is which. I use a large black 'Sharpie' to number all of mine.

There are really two different steps to doing nest checks.

First, there's the checks that is done from a distance. These are known as '**walk-unders**'. That means studying your colony without actually getting into the housing and observing their actions under normal circumstances. You aren't directly involved and you get to see the normal happenings when they aren't being directly interfered with. I use my note sheets a lot here. A good pair of binoculars might come in handy also if you want to study from a longer distance. Every day a landlord should walk under his colony to see if anything unusual can be detected from the ground.

From these walk-unders, you'll look at the colony in general, looking for anything that may seem out of place. Watch the ground as you walk. A large brown feather found on the ground could mean an owl attack. Large quantities of martin feathers and bits of chewed off wings could mean a raccoon visited during the night. Martins flying about, fussing loudly and refusing to enter their housing could indicate a snake is in the housing. Any of these signs would indicate you need the proper guards in place and pronto or you'll quickly lose your colony if visits from these predators are repeated. Snakes will usually visit later in the season when eggs and young are present and once in your housing, won't leave until every egg and baby are gone. Untold numbers of colonies are lost to these predators every year because the landlord failed to employ proper predator guards. And it's not the snakes fault, it's only following its' instincts in finding food. All ground based predator attacks can be prevented by simply employing a workable pole mounted predator guard. This is a responsibility that we as landlords must accept if we are to host purple martins.

Second, there's the 'direct' nest checks. That means actually lowering the housing and looking into each compartment. These are the ones that usually scare a lot of people because they feel they are interfering with their birds. But, after doing them one time and watching their birds return shortly after they've finished, they usually realize that the martins really don't mind and tend to lose that fear a little. However, getting landlords to realize this is a never ending battle and very large numbers of people still believe in the old myths that directly interfering with their birds is not good.

Walk-unders should take place every day from the time the birds return and continue throughout the time they are here. Direct nest checks should begin at the start of nest building and then continued on a regular basis. Always date your checks. When using them to refer back later in the season, it makes it easier to tell when something was going on. I do my nest checks every 4 days and there is a reason for this. If I were to only do nest checks every 7 days, for nests that only had 4 eggs laid, I wouldn't be able to determine when the first egg was laid. There could be a 2 or 3 day overlap there that I wouldn't know about. But, if they're done every 4 days, then even the nests with only 3 eggs in could be determined. Now, this is not to say that every 4 days is a requirement. It's only a suggestion. Some folks are not able to do them that frequently or might only be able to do them on weekends. That's fine too. Just keep good records as best you can.

If you supply nesting material in the cavities like I do, then you'll have to determine what time you want to begin nest checks. However, if you watch the birds actions, you'll be able to tell about when to begin. I also supply a raised platform with cut wheat straw on it and from that, I can tell when the birds are working on their nests. Even though I supply nests full of material, some of the females will add some finishing touches to their nests and I see them at the platform getting some of this straw. That tells me nest building is in process.

Begin by lowering the house slowly. Yes, your birds might fly off making a lot of noise, but if you take notice, they aren't flying away, but instead, are flying right directly overhead. Martins aren't like other birds and run and hide. Instead, they are curious and

want to see what you are doing. Depending on how long it takes, they'll usually find a perching place and watch. My site consists of 4 racks and two houses and mine mostly land on another rack or a power line that I have and watch me. Of course, mine go through it all the time so the older birds are used to it. So much in fact, that later in the season, some incubating females won't even get off the eggs. This is an added treat because it tells me that my birds trust me and know that I mean no harm to them and that's a good feeling.

Since it's early in the season, you can take your time. There's no eggs or young to worry about so speed is not an issue. Upon opening the compartment, take note of how things are going. Check out to see if the original material you put in is enough. The material will settle down from the birds walking on it and there should be enough so that the nest level is right up to, or close to, the bottom of the entrance hole. If they want to add more, they can. If a female adds finishing touches to her nest, then make note of what it is. This might be more material or twigs and of course, leaves. Take notice of what they are using and generally what's going on throughout the colony. If there are different leaves available, make notes of the types. This is where the 'note' sheets come in handy. Although it turned out to be common sense, I realized that nest building never starts before the leaves are out on the trees. It was something I never paid attention to until I started keeping 'notes'.

Look at the nests in general. Do they look like they are normal? (After seeing a bunch of nests, you'll soon learn what 'normal' is for a martin nest.) Do they look like martin nests? Do they look different? If other birds are building in your housing, this is a quick way of telling that something is wrong. It is imperative that a landlord be able to quickly discern what type of nest they are looking at. European Starlings and English House Sparrows will readily build nests in martin housing and they must be removed at once. A quick way to spot these pest birds nests is, both of these birds will literally fill the compartments with nesting materials and if they continue to build, then elimination procedures must be taken as soon as possible.

As the season progresses, take note of the age of the birds. ASY's, SY's and which are paired with which. Although not always, mature birds will usually pair together. ASY males that can't find a mate will sometimes choose a SY female, or vice versa. There is a place on the data sheets for this information.

As egg laying begins, make note on the data sheets of how many and what date it is. This will help determine the date the first egg was laid. Once this is known, using the prognosticator, you can now calculate when the first fledglings will vacate the nests. Not trying to hurry the season here, but it's a good indicator of how long the nesting season will last, plus you'll need this information later in the season.

Using your 'poke' stick, gently poke around in the nest, moving leaves and get an accurate count of eggs. Sometimes the females will bury them down into the leaves and they are not readily visible until you move the leaves. Once the count is obtained, replace the

leaves to what the female had to begin with. Although not critical, I try to leave the nest as close as possible to how I found it.

Look at the condition of the leaves. Fresh green, dried green, dried and brown. Sometimes, martins will use dried brown leaves from the previous year to build their nests. They aren't always 'fresh' green. These brown leaves are usually combined with sticks that they find, giving them a good base to walk on.

Look for eggs that might be discarded from the nest. These are usually found well out of the bowl and near the entrance hole somewhere. Check them to make sure they aren't 'pinned'. Pinning is the results of sparrows getting into the nests and then pecking holes in the eggs, rendering them infertile and preventing them from hatching. Sparrows are notorious for this and it's one reason they must be kept out of martin housing at all costs. If not pinned, then the female has determined the egg to be infertile and she has removed it from the nest. These eggs should be removed from the cavity and should never be placed back in the bowl. Make note of this on your 'notes' sheet.

Once your birds get used to your being around, sometimes when you lower the house, some won't even get off the nest. Incubating females will often stay right on the eggs while you open the compartment. If this happens, that's when your little push stick comes in handy. Use it to gently push her aside or lift her just enough to count the eggs and then close the compartment back up. I actually talk to mine in a soft voice while I'm doing this and many times she'll just continue setting on the eggs as if nothing has happened.

The hatching of the first young of the year is always an exciting time. This means that the parent birds will be making frequent feeding forays to find food and return it to the ever hungry young. As more and more young hatch, the colony becomes a frenzy of flying birds, zipping in and out with food. Nest checks are even more necessary now because the young are more vulnerable at this time than at any other. New born chicks are helpless and for the next 28 days are totally dependent on the parent birds. However, there are a few things that the parents can't do anything about, but landlords can.

Daily walk-unders are now more important than ever. As nestlings get older, they often stray to close to the entrance hole and are sometimes pushed out of the nest and are quite often found on the ground. If you've kept good records, it can usually be determined which nest it came from and then be replaced there. The proper guards in place are now of primary importance to protect these young from predators that want to get at them. During nest checks, there are a number of things to look for. Keep watch for nestlings that may die. Sometimes, for what ever reason, some young will die and it's nobody's fault, just a thing of nature. If small enough, the parents will usually remove them from the nest. But if they are too big, they usually end up staying right where they died. Dead nestlings create a growing medium for some insect pests and must be removed from the nest as soon as possible, and besides, they aren't too pleasant to smell after a couple of days in a hot nesting compartment. Sometimes you'll find very young chicks on the ground in numbers. Check them out for wounds. Both sparrows and starlings are

notorious for throwing baby martin chicks out of the nests so that they can't mature. Another reason for eliminating these pest species from around martin colonies. Starlings can be prevented from entering your housing simply by employing crescent shaped Starling Resistant Entrance Holes

Blowflies and mites are the two major problems most landlords will run into. Both of these insect pests lay their eggs in the nesting material. In the northern latitudes, blowflies can be a real problem and in the south, mites. Both of these pests can literally suck the life blood out of young birds and if left un-attended, can eventually kill them. To the best of my knowledge, the only thing that can be done for blowflies is to replace the nesting material. This is also the 'recommended' treatment for mites, however, major infestations of mites may require a couple of nest changes during the season.

Another thing that can be done to control mites is to apply a small amount, (less than a level teaspoon) of 5% Sevin dust to the nesting material just inside the entrance hole. Then, tap the nest to settle the powder down into the nesting material. **DO NOT** add directly to the chicks. The mites will crawl through the dust down in the material and thus, be eliminated.

Note:

The use of pesticides in martin nests is a very controversial subject. Statements given here are not to endorse the use of pesticides in martin nests, but are here only to give a landlord an alternative for treating mites. (Some just can't stand to have mites crawling all over their hands). It is suggested that anyone choosing to use 5% Sevin dust for this treatment should educate themselves fully on the subject of Carbaryl first. If you do not wish to use it, then please, do the nest changes.

Keeping close tabs on the number of chicks in each compartment is important. If one of them happens to get out, then you'll know where to replace it if it's found on the ground. If for some reason, the numbers change drastically, then you probably have a predator that is visiting and the proper preventative measures need to be taken as soon as possible.

One note here:

Every once in awhile a very young live baby will be found on the ground. If this happens, then the nests should be checked for predator or pest involvement. If nothing out of the ordinary is found, then these babies **should not** be replaced in the nest. Obviously, the bird is much too young to get out on its own and if pests aren't the cause, then the parents are. If the parents deem something wrong with a chick, they will discard it on their own and you'll find them when you do your walk unders. Although we may not see anything wrong with the baby, the parents apparently do and have decided not to raise it. Unlike us humans, wild birds do not live on emotions, but instead use instincts that have been passed down through eons of generations and they seem to know when it's best not to waste energy and try to raise a chick. When I find these, I usually let nature take its course and simply discard it. I try very hard not to let my emotions (Anthropomorphism) take over in instances like this and try to see it from the birds' point of view. Their instinct is to spend their energy raising healthy young chicks instead of wasting it on one that is not healthy.

As the season begins to wind down, keep track of the dates of the first hatchings. When the young get to be about 22 or 23 days old, direct nest checks should cease. From this point on, only walk-unders should continue. The reason for this is that, any sudden shaking of the housing could make the young quickly vacate the compartments and at this stage, they are much too young to be able to fly and survive. However, they have enough feathers that they could get a good distance away from the housing and you might have a problem finding them to put them back. It is imperative that the last nest check be a good one, making one final accurate count and making sure all things in all cavities are well and that there are no problems. If there are, then they should be fixed and then let the season conclude without further intrusion.

It's at this point that I like to spend more time around and under my colony. The young, although initially shy will eventually get curious enough to stick their heads out of the entrance holes and within a short time, see me as no threat and begin paying full attention to the parents bringing in food. Then, when they eventually do fledge, they are not afraid of me when they come back to roost or perch on the housing. I find it particularly funny at times to watch their antics and see some of the predicaments they can get into while learning to use these new found wings. I also keep a camera with a good lens close by just in case. You never really know what can happen and a good picture can result from a few of them.

Because of accurate records, you'll know when the last young have fledged and once that happens, lower the housing and make one final check. If all is OK, then you can now tally your seasons' numbers and put your notes in order. I like to punch holes in mine and keep them in a 3 ring binder. I put my notes together in an order that I can follow and then use them to refer back to from season to season. A copy can be made of all of it and then sent off to the PMCA so that they can be used for research purposes.

Hosting purple martins has changed in the last decade and it is now imperative that landlords get involved with their colonies. Not only is it good for research, but it's good for the species as a whole. We now know what's going on in the colonies and when something is amiss, we are able to correct it before the problem gets out of hand. And one more thing. Doing nest checks is fun. In fact, the next time you do one, invite a neighbor from down the road that has birds and let him or her join in, especially if they've never done one. There is no better way to educate landlords than to let them experience things first hand and before you know it, they'll be doing nest checks too.

Information excerpted in its entirety from A Bird's Home -
<http://www.abirdshome.com/pm/ovintro.htm>