

# Martin Migration

*Purple Martin Roost at Wheeler Dam Is Remarkable Sight*



KEITH HUDSON

**The sight of a half million whirling creatures of any kind at one time and place is a dramatic and interesting experience.**

A remarkable wildlife spectacle has unfolded in recent years on one small island on the Tennessee River. A hundred yards or so on the downstream (west) side of TVA's Wheeler Dam in Lawrence County, hundreds of thousands of purple martins are using this small acre-size island to congregate in a large flock prior to their fall migration. Some estimates of this roost run as high as a half million.

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By M. Keith Hudson, Wildlife Biologist, Division of Wildlife and Freshwater Fisheries

Each evening about sunset, purple martins from all over the region can be seen flying toward the dam and this island. As they arrive, they first perch by the thousands on power lines crossing the Tennessee River. Between sunset and dusk, still more thousands approach from up and down the river. On and on they come, until, just in the twilight of dusk they all make a wild flight to perch on small trees on the island. For a few spectacular minutes, the air is full of half a million swirling, chattering frantic birds. Soon, most of the limbs on the island's trees begin to bend from the weight of birds perching wing-to-wing. As darkness falls, the flock quiets. Here they will stay until dawn when they will disperse into the surrounding area to forage for insects. During congregation and dispersal the concentration of these birds is so dense they can regularly be seen on local weather radar.

This remarkable spectacle can be viewed from about 200 yards away at TVA's Wheeler Dam Public Recreation Area on the southwest side of the dam, which also happens to be Site #2 on the North Alabama Birding Trail. However, the best view is from a boat moored anywhere around the island. It will be repeated each night for about three weeks in August, until the flock leaves to begin their long migration to their wintering grounds in Central and South America.

## Swallows of Fame

Many are familiar with the "Swallows of Capistrano," the birds of the mission in San Juan Capistrano, California, and the notoriety they receive annually as heralds of springtime in California. These western swallows generally return to the mission about the same time each year after overwintering in South America. Tourists, romantics, and birdwatchers "flock" to

*For a few minutes at dusk, the air is full of thousands of purple martins. While the best view is from a boat, the spectacle can be viewed from TVA's Wheeler Dam Public Recreation Area, which is stop #2 on the North Alabama Birding Trail.*

the mission each year eagerly awaiting the swallows, whose return declares the arrival of spring.

In the Deep South, the equivalent swallow is our purple martin. This bird is our courier of spring and also our harbinger of winter. These beautiful swallows also spend the winter in South America and migrate to the eastern U.S. to reproduce and spend the summer. Indeed, they are one of the earliest migratory birds to return to Alabama, with adult males crossing the Gulf Coast as early as late January and early February. They are also one of the earliest birds to begin migrating back in the fall.

The purple martin is a type of swallow that lives in colonies. They have slender bodies with long pointed wings and forked tails. The male is a dark purplish-blue all over (hence their name), and the females and juveniles are pale-gray below. Swift flyers, they alternate between short graceful glides and rapid flapping, and feed almost exclusively in the air.


## A Memorable Evening

One night in August 2006 my daughter

and I watched the fly-in from a boat by the island. On this memorable evening we looked westward down the Tennessee River and were blessed with a gorgeous sunset. Over our shoulders 180 degrees to the east was a rising full moon and massive sunset-colored thunderstorm. As the sky darkened, the moon and thunderhead brightened. This was the silhouette for the half-million purple martins as they swirled around our boat. Indeed, we had to don hats and jackets so as not to take home an unwanted "souvenir."

These large pre-migratory roosts occasionally change locations and there is no guarantee they will return to this island each year. In fact, when a roost moves, local purple martin enthusiasts diligently search for the new location.

## See the Martins

If you wish to see this event, contact the Alabama Wildlife and Freshwater Fisheries Division office in Tanner at 256-353-2634 to see if the martins are present at Wheeler Dam this year. 



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# BUILD ARTIFICIAL STRUCTURES FOR PURPLE MARTINS

Purple martins are voracious eaters of insects and a colony of purple martins can consume thousands of insects each day. For this reason many people construct artificial nesting houses to attract martins to their home for environmental friendly insect control. Two basic types of manmade nesting structures will attract martins. Here's how to build both.

## GOURD HOUSE

Large gourds are the best for purple martins. Choose a gourd that is at least 8 inches in diameter and 6 inches tall. If the gourd has not been harvested long enough to be seasoned, dry it by placing in a sunny area and turn it every few days until you can hear the seeds rattling when you shake it. Once it is completely dry, it is ready to be prepared.

Lightly sand any black mold off the outside. Mark and then drill or cut a circular 2 1/4-inch hole about 4 inches above the bottom of the gourd. This is the entrance hole. Be sure the bottom of the entrance hole is not too low to the bottom. This will prevent fledglings from falling out of the gourd before it is time for them to leave the nest. Cut out the hole with a keyhole saw, jig saw, or use a hole saw bit with your drill. A hole saw bit is quick and makes a smooth, uniform hole. Bore several 1/4-inch holes in the bottom for adequate drainage. Drill four or five additional holes for ventilation around the neck of the gourd about 3 inches from the top.

Clean out the dried seeds and drill a 1/4-inch hole through the top. Attach a wire hanger and the birdhouse is ready for hanging.

A gourd birdhouse will usually last two years, but for added protection and longevity, varnish or paint with a light-colored paint to prevent overheating. Most people hang about a half-dozen gourds from horizontal poles attached to a vertical pole.

Research has shown that gourds are superior homes over commercial houses for some species for a variety of reasons. Weather is a major cause of mortality in many bird species, especially purple

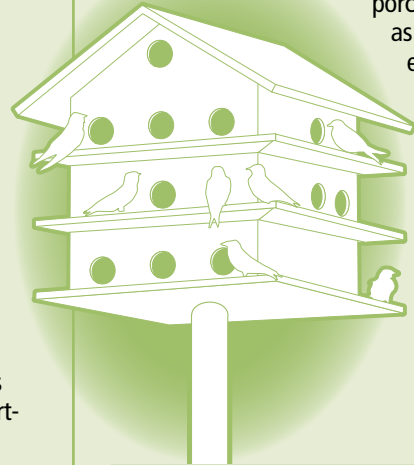
martins. Natural gourds offer better insulation against heat and cold than aluminum or plastic housing. My personal observation is that martins always prefer natural gourds over any other type of commercial houses. When given the choice, they will always nest first in a natural gourd before using an aluminum house or plastic gourd.

Studies using sophisticated temperature probes have shown that martin nests in natural gourds stayed cooler in hot weather and warmer in cool weather. These same tests have consistently shown higher occupancy rates (100 percent) of natural gourds over conventional houses (67 percent). Often heating up to higher temperatures, which can affect hatching and nesting success rates, aluminum houses and plastic gourds do not possess these same insulation qualities for the nestlings as natural gourds. Natural gourds also provide a larger, deeper nesting compartment for martins than the typical 6-inch-by-6-inch compartment houses available from birdhouse suppliers. These deeper nesting cavities offer better protection against predators and reduce egg losses. All of this adds up to martins having their highest reproductive success in gourds.



## ARTIFICIAL HOUSE

There are many different types of artificial martin houses — from simple boxes to elaborate multi-layered bird “condos” — but some general specifications should always be included. The entrance should measure at least 2 inches, but not more than 2 1/2 inches in diameter. Each compartment's floor space should measure at least 6 X 6 inches with a minimum height of 4 inches. Wide porches, at least as wide as the entrance holes should be provided.



## MAINTENANCE

Regardless of the type of nesting structure provided, each will require a small amount of maintenance each year. Nesting boxes and gourds should be taken down and stored during the winter to discourage use by house sparrows and starlings.

Martin nests are constructed of mud, leaves and small twigs. Most often, four or five off-white eggs are laid, which the females incubate for about 14 days. Purple martins often return annually to the same nesting area, and sometimes the same nesting structure. Imagine having your own group of world travelers return to your home each year. 