

Habitat

works

CHESAPEAKE WILDLIFE HERITAGE

The newsletter about designing, restoring and managing wildlife habitat.
Spring 2019



Habitat Works is published by Chesapeake Wildlife Heritage, a 501(c)(3) nonprofit conservation organization dedicated to designing, restoring and managing wildlife habitat and establishing a more sustainable agriculture through direct action, education and research in partnership with public and private landowners. We welcome your comments and contributions.

Managing Purple Martin Colonies

Helping the birds that eat so many bugs

By Andi Pupke, Education & Outreach Director

As spring arrives on the Eastern Shore of Maryland, the Purple Martin's first tranquil call commands our attention. We share a sense of relief that winter is past and excitement that summer is on its way. The older male scouts reassure us that our old friends will once again return.

But the Martin's call is also a reminder:

- 1) **that houses need to be cleaned and put up,**
- 2) **that Purple Martins rely on us for nesting cavities and**
- 3) **that we must be active in caring for our Martin colonies.**

Chesapeake Wildlife Heritage has installed Purple Martin houses for more than three decades. During this time, we have had many moments of great success and a few tragedies. Through it all, our commitment to Purple Martins has remained strong.

Since 1998, CWH has restored more than 1,500 acres of wetlands, planted more than 850 acres of woodlands and planted upwards of 6,000 acres of native grasslands. CWH also helps private landowners manage habitat on their property and conducts research to benefit the Bay and its wildlife.

Nesting structures can be a valuable component of this work, and CWH's Nesting Structure Program has provided them for a wide diversity of wildlife. The most popular structures are for Wood Ducks, Osprey, Bluebirds and, of course, Purple Martins. One thing we have learned is that nesting structures, including Purple Martin houses, need to be managed carefully.

Over the past thirty years of installing Martin houses, CWH has installed a wide variety of structures in various locations. We now favor one house design with

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Left to right:
 Purple Martin eggs
 are pure white.
 Chicks on the third
 day after hatching.
 Chicks with pin
 feathers.



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a double compartment for each Martin pair that protects them from severe weather. All CWH-installed Martin houses are raised and lowered with a pulley system for easy monitoring, and each pulley system includes a predator guard that stops most snakes from making their way up the pole to the chicks.

When we learned that some Purple Martin landlords were having trouble with invasive House Sparrows, we researched better ways to install and maintain the Martin houses. This resulted in installing most Martin houses on docks over water and incorporating crescent-shaped starling-resistant entrances. House Sparrows do not like being over the water, but this does not hinder the Martins from using the nesting structure.

Once we had a good handle on managing the House Sparrow problems, we had to deal with owl attacks on the Martin colonies. Adding owl guards to all of the houses has proven effective at keeping the Martins safe from late-night owl attacks.

Predator attacks are not the only dangers to Purple Martins—the weather plays a huge role in the welfare of their population. Not only do Martins face treacherous weather throughout their long migrations in spring and fall, they can also experience bad weather once they reach their destination. Cold, wet springs can cause the demise of Martins who have depleted their body fat stores while traveling great distances to reach their breeding grounds. Martins feed on flying insects, so if it is too cold or wet for insects to fly, the birds have nothing to eat. CWH staff have spent many wet hours flinging crickets and mealworms into the air near the Martin colony trying to feed them. We have also cooked scrambled eggs and placed them on raised feeders for the Martins.

On June 29, 2012, the area experienced a fierce derecho, a widespread straight-line wind storm that can cause hurricane-force winds, heavy rains and thunderstorms. We lost some chicks from a few of the Martin houses during this storm, but one site was in the direct line of the storm. The entire pulley system blew down, killing all 56 of the chicks and most likely some of the adults. We feared that a colony would not return the next season. It was a devastating loss, but happily, the Martins returned in the spring of 2013 to a reinforced nesting system. That colony has been thriving every year since the storm.

CWH also tries to be aware of insecticide use in the area before placing a Martin system. This hazard cannot always be controlled or known, as neighboring properties can be using insecticides that could harm the Martin colony we are trying to protect. Please be aware of insecticides being used on your and adjacent properties.

Many of our Martin landlords wanted their houses to be monitored throughout the nesting season but could not do the monitoring themselves.



CWH responded by offering to conduct weekly monitoring as a management service and received a very positive response from the landlords. We began monitoring Martin houses for a few landlords in 2010, and the demand for this service has steadily grown. CWH staff conduct weekly nest checks to maintain the health of the colony, make repairs to the houses, change nesting material when needed and collect nesting data. At the end of the nesting season, we take down the Martin houses, clean them and store them for the winter. CWH sends each Martin landlord a summary of all data collected throughout the nesting season, including the number of chicks fledged, any predator issues and any repairs needed.

During the 2018 nesting season, CWH monitored 26 houses on 11 different properties that fledged 474 chicks. We will add at least four more houses and one new property to the monitoring list this coming season.

CWH has held Purple Martin workshops in the past that offered landowners a lecture and educational information on Martins. These workshops have always been well attended with enthusiasm. We are members of the Purple Martin Conservation Associations and use many of their educational materials.

CWH takes an active role in managing our Purple Martin nesting colonies. We help our fellow Purple Martin lovers attract and keep colonies, too. This work is helpful for Purple Martins and extremely enjoyable for the person who gets to spend so much time in the company of the Martins.

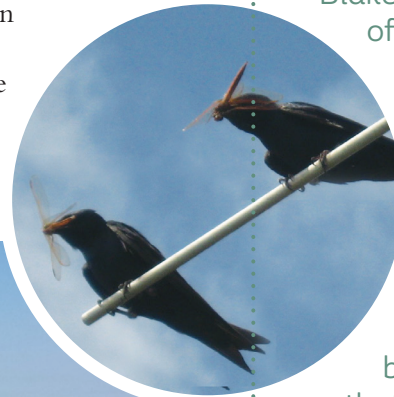
A version of this article appeared in Purple Martin Update.

According to *Wildlife Society Bulletin* (WSB), **the Purple Martin is experiencing a long-term decline. There is worry that their numbers will continue to diminish if humans don't continue to provide housing for them.**

A study published in WSB found that Martins have very high nest survival in artificial housing, which makes Martin houses extremely important in conserving these birds.

Texas Tech Assistant Professor Blake Grisham, an author of the study, noted that Martins have depended on mobile housing since European settlement—from gourds placed by Native Americans to modern houses such as those used by CWH. He also noted that Martin conservation measures are typically undertaken by older people and that younger generations must do their part to curtail the population decline.

To learn more about installing Martin houses on your property, call CWH at 410-822-5100.



CWH Education & Outreach Director Andi Pupke monitors a Purple Martin house on Kent Island.



CANTERBURY Wetland Expansion

By Ned Gerber, Director/Wildlife Habitat Ecologist

Despite the wet summer and fall of 2018, CWH was able to complete 15 acres of new wetlands on our Canterbury Farm near Easton in Talbot County. Generously donated to CWH in 2008 by Mrs. Martha Ann Healy, this 150-acre property is protected by a perpetual conservation easement. Funding for the project came from a National Fish & Wildlife Foundation grant, with additional funds provided

by the Biophilia Foundation, the Healy Foundation and the Maryland Department of Natural Resources. The Maryland Farm Service Agency has ruled that our easement (which prevents converting restored wetlands back to commercial farming) makes us ineligible for the Conservation Reserve Enhancement Program (CREP) on this site. This is unfortunate, as it would make no sense to go to all the work and expense of a wetland restoration only to turn around at the end of the contract and spend thousands of dollars per acre regrading the site to try to farm it again. We love CREP, but it is in desperate need of some rule changes to improve participation!

As you may recall, we encountered record rainfall last year, and this made earthmoving work very challenging. Our excavators, the Foxwells, spent a lot of time ditching and draining

the restoration areas to dry them out enough that the dirt could be moved. Yes, you read that right! We had to drain the fields more effectively before we could convert them to wetlands.

We use low-pressure earthmoving machines that can run where a person cannot easily walk without sinking calf-deep into the mud. As a result, once the berms were “mudded in,” the areas were seeded and mulched using our Gator on rubber tracks, which can go where normal equipment would otherwise sink.

About eight acres of the site are meant to be wooded wetlands. We installed willow oaks, river birch, buttonbush and other woody plants in November and immediately protected them with a solar electric deer fencing system. As we hope you are aware, many areas of Maryland suffer from

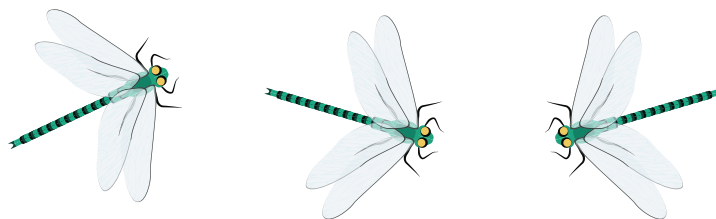
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A flock of Pintails lands in a CWH-restored wetland. Photo courtesy of Spencer Parks.

high deer populations (more than 20 animals per square mile). As a result, growing anything in these areas, even native plants, is difficult to impossible if they are not protected from deer. While tree tubes are often used for plant protection, we feel that solar electric systems are more cost effective for large-scale restorations. Many folks find the electric fence system more aesthetically pleasing, and there are no tree tubes to remove once the trees grow large enough to no longer require protection.

These new wetlands will complement the other 60 acres of marsh that CWH has restored on the property over the last 20 years. A great diversity of waterfowl use the habitats at Canterbury Farm, making it a good place to take landowners to demonstrate and discuss the benefits of wetland restoration.



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Ask Andi:

I have a few trees in my woods that are starting to die and have holes in them. Should I cut them down?

By Andi Pupke, Education & Outreach Director

ANSWER: As long as the tree is not a threat to your home or could injure people, let it stand as long as it can. Dead trees provide valuable habitat to birds, bugs and small mammals.

Some 85 species of North American birds excavate nesting holes, use cavities resulting from decay (natural cavities) or use holes created by other species in dead or deteriorating trees. Such trees, commonly called snags, have often been considered undesirable by forest and recreational managers because they do not see them as aesthetically pleasing.

Harvesting all dead or dying trees would have adverse effects on woodpeckers, swallows, wrens and owls, to name just a few of the critters that use tree cavities. Many species of cavity-nesting birds have seen a decline in population due

to the loss of nesting sites because so many dead trees have been removed from the forest. Not all birds can adapt to manmade nesting structures like a wood duck or bluebird can.

Woodpeckers harvest insects and grubs, which they find on decaying wood under the bark. Most woodpeckers feed on wood-boring insects, which in turn keeps the forest healthier.

Separating or peeling bark can shelter resting bats during the day. Bats consume a large number of pest-type insects that could otherwise damage crops or bite humans. In addition, the bare, weather-worn branches of dying trees are favored hunting perches for hawks and owls.

After a tree falls, it provides shelter for amphibians, reptiles, mammals and insects. The tree's decaying debris also returns nutrients to the soil, ultimately strengthening the forest's ability to support life. Mushrooms will grow on decaying wood, thus providing food for box turtles, squirrels and a host of other critters.

Use your common sense when determining if a snag needs to be cut. If it threatens to damage property or could injure someone, try to remove it outside of the nesting season. Keep in mind that some owls can be on eggs in February and that there could be a nest of owls or a litter of raccoons in the tree cavity. ●



If you were in a wooded area on the Eastern Shore of Maryland this winter, you may have noticed an increase in the numbers of Red-Breasted Nuthatches (*Sitta canadensis*). They are normally a fairly rare sighting in our area, but this winter they made themselves abundantly obvious. They are commonly found in coniferous woods and mountains in northeastern North America and can also be found in forests of Oak, Hickory, Maple and other deciduous trees.

This irruption of Red-Breasted Nuthatches resulted from a lack of food in their normal, more northern range. An irruption is a sudden upsurge in population or an irregular migration normally associated with a food shortage.

The Red-Breasted Nuthatch is a small, compact bird with a sharp expression accented by its long, pointed bill. These blue-gray songbirds have very short tails and almost no neck, a plump body or barrel-chest and short, broad wings. The strongly patterned

head features a black cap (or a grayer cap on females) with a broken white strip through the eye. The under parts are a rich rusty cinnamon color on males and duller on females.

Red-Breasted Nuthatches are about 4.3 inches in length and have a wingspan of 7.1–7.9 inches.

The White-Breasted Nuthatch, which is more common on the Eastern Shore, measures 5.1–5.5 inches in length with a wingspan of 7.9–10.6 inches.

The difference in size is very noticeable in the field.

They move quickly over trunks and branches, creeping up, down and sideways without regard for which way is up as they probe for food in crevices and under bark. They do not prop their tail against the tree as many woodpeckers do.

These irruptions occur about every two years or so, depending on the seed crop in the North. It is wonderful to have these birds visit as long as it means they can survive the winter. Enjoy them when they are here.



Don't forget to sign up (or apply) for *Phragmites* spraying this fall!

Phragmites (*Phragmites australis*) continues to invade the waterways of the Eastern Shore and other parts of Maryland at an alarming rate. It's that very tall reed that blocks the shoreline view. Because it grows so thick, it can destroy a wetland's fragile ecosystem by choking out beneficial and native wetland plants.

It will soon be time to start thinking about having the *Phragmites* on your property sprayed. If it has been treated within the past three years, start looking for your sign-up form in the mail around the beginning of June.

If you are new to the area and would like to learn more about *Phragmites* or request an application, contact Mary at 410-822-5100 by July 31.



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Tundra swans and diving ducks rest for the evening in the icy waters off CWH's Barnstable Hill Farm refuge.