MARYLAND COOPERATIVE EXTENSION
UNIVERSITY OF MARYLAND
COLLEGE PARK•EASTERN SHORE

Fact Sheet

Fact Sheet 800

Attracting the Beneficial Tree Swallow

Introduction

The Tree Swallow is one of the most acrobatic songbirds in Maryland. Dancing and darting through the air, this fork-tailed bird is an adept flyer and talented hunter of flying insect pests. Bird enthusiasts know that spring is near when they see these birds arrive; they are some of the first songbirds to migrate north after the winter. They can be seen perching on posts, wires, and trees in Maryland as early as mid-March.

Photo by Richard Van Vleck

Tree Swallows nest in most areas of the northern United States and Canada, ranging from as far south as Tennessee to as far north as Alaska and Hudson Bay in Canada. They can also be seen in the western U.S. in the Rocky Mountains, California, and the Pacific Northwest. Fortunately, Tree Swallows can be found throughout Maryland.

Besides having fun watching these birds, farmers, gardeners, and others enjoy Tree Swallows because they are consumers of pest insects. Along with bats, bluebirds, and purple martins, they can play an important role in an integrated pest management strategy for controlling many farm and garden insect pests.

Identification

The Tree Swallow is a distinctive bird. Medium in size, the male's underbelly and cheeks are white, with a beautiful iridescent green-blue back and wings. The female has similar markings, but her upper feathers are a duller green-blue. The male and female are about the same size. As with many swallows, the Tree Swallow has a forked tail that is visible in the air. Immature Tree Swallows have a white belly, and their backs and chests are a dull gray-brown. They lose their juvenile plumage and adopt their adult colors when they are about a year old.

Habitat

The Tree Swallow is a common species throughout its range, though it flourishes in habitats where there is adequate food, shelter, and appropriate ground cover. Tree Swallows winter on the southern coasts of the U.S, Mexico, and Central America. When these birds migrate north, there are specific features they look for in potential nesting sites.

The Tree Swallow nests mostly in fields, meadows, and on the borders of wetlands. These open areas, often near water, provide access to the flying insects Tree Swallows eat. Orchards, schoolyards, open lawns, and fields can all provide suitable habitat. Tree Swallows do not like to be in heavily wooded areas, as hunting for insects is difficult and there are more predators.

Also, other species of birds that live in wooded areas provide high competition for nesting sites. The Tree Swallow relies on existing cavities in trees for nest sites. As a secondary cavity nester, finding an appropriate cavity is crucial for success in breeding and is a critical factor for attracting Tree Swallows. Finally, the Tree Swallow does not like to be on the ground. Most of the time it will be seen flying after insects or perching on a pole, tree or wires, and it will prefer to nest in areas where these open perches are available.

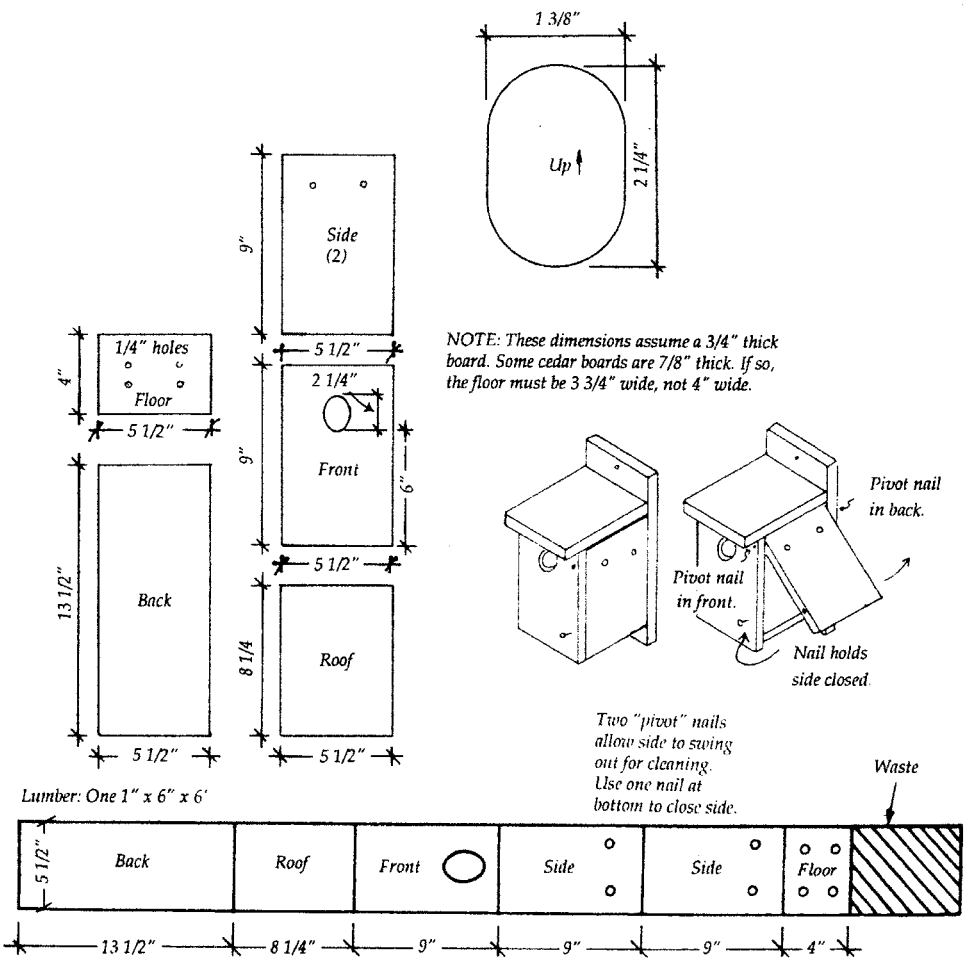

Figure 1. Nest box plans. Reprinted with permission from the Minnesota Department of Natural Resources.

Diet

The Tree Swallow eats flying insects in large quantities. From dawn to dusk, these birds can be seen chasing after flies, grasshoppers, and beetles. They also eat ants and dragonflies. When insects are unavailable, they will survive on seeds and berries. Normally seeds and berries are consumed only during the winter months. Tree Swallows are a great benefit to farmers, gardeners, and anyone who wants to reduce the number of insect pests on their property.

Attracting Tree Swallows to Your Property

Providing nesting habitat for Tree Swallows is a great individual or family activity. First, it is important to determine if your property contains the appropriate habitat as described in the habitat section above.

As mentioned above, Tree Swallows are secondary cavity nesters. This means they typically use a cavity that was excavated by a woodpecker. They do not make their own nests outside of a cavity. Historically, Tree Swallows nested in dead trees and then began to use wooden fence posts as nest sites. As land with dead trees has been cleared and many wooden fence posts have been replaced with metal posts, nesting habitat for Tree Swallows has decreased. Fortunately, Tree Swallows readily nest in properly built and placed nest boxes. These nest boxes have been designed to accurately mimic their natural nesting cavities. A set of nest box plans is provided at the end of this fact sheet. It is important to note that other Tree Swallow/bluebird nest box designs such as the Peterson Box work equally well.

The North American Bluebird Society recommends mounting nest boxes on a smooth round pipe at a height of 5 feet above the ground. Electrical conduit between 3/4 to 1 inch in diameter works well as a mounting pole. A smooth metal pole is much more effective than a fence post or wooden pole in preventing predators such as cats, raccoons, and snakes from reaching the nest box. A 2- to 3-foot square of ¼-inch wire mesh should be fastened on the pole below the box to further deter predators from reaching the box. Nest boxes of any type should not be mounted on a fence or tree because predators often walk fence lines and are able to climb trees.

A properly designed and constructed Tree Swallow nest box has an entrance hole of 1 1/2 inches in diameter. Tree Swallow nest boxes should never have a perch on the outside. The birds do not need them and they may attract undesirable European starlings and house sparrows.

Creating a Nesting Trail

Many people speak of creating or wanting to create a bluebird trail. In this case, you could incorporate a Tree Swallow trail with a bluebird trail. A bluebird or Tree Swallow trail is a series of nest boxes that have been placed along a predetermined route. When designing a Tree Swallow trail, it is important to make sure all the nest boxes will be placed in an area that meets their habitat requirements. Tree Swallow houses along a Tree Swallow trail need to be 15 to 20 yards apart, because Tree Swallows are territorial and do not like nesting any closer to one another than 15 to 20 yards. However, in places where bluebirds and Tree Swallows coexist (all of Maryland), we recommend placing two nest boxes about 15 to 20 feet apart, moving another 100 yards and placing two more boxes 15 to 20 feet apart, and so on. In the case of bluebirds, they will not normally nest closer than 100 yards apart, but a bluebird will nest 15 to 20 feet away from a Tree Swallow. For this reason if you plan on providing habitat for both species, plan your nest box trail around the bluebirds because they require the greater distance between their boxes. Both species are highly beneficial because they consume large numbers of insects and should therefore be welcome in your nest boxes. (For more information regarding the bluebird, see Fact Sheet 799, "The Eastern Bluebird: More Than Just a Pretty Bird.") The only two species of birds that should be dissuaded from using your nest boxes are the European starling and the house sparrow.

Monitoring and Maintenance: Keys to Success

Before you decide to erect nest boxes for Tree Swallows it is important to realize that simply putting up the nest box is not the end of the process. During the nesting season, nest boxes should be monitored on a weekly basis for several reasons. First, boxes that are not monitored may do more harm to Tree Swallows by allowing non-native house sparrows to inhabit the box.

The House Sparrow Problem

If a house sparrow is using the box, the nest (with or without eggs) MUST be removed from the box each time a house sparrow nest is found. House sparrows are an invasive species from Europe and have done significant damage to populations of native cavity-nesting birds like Tree Swallows and bluebirds. House sparrows are a more aggressive species than the Tree Swallow and will chase off Tree Swallows or kill them. In Maryland, there are no laws protecting house sparrows and they should be exterminated whenever possible. They may be legally shot or trapped at any time of the year. It is important to note that if you trap house sparrows, they should not be released somewhere else. They need to be euthanized. If house sparrows are allowed to live around your Tree Swallow nest boxes, there is a good chance you will find dead Tree Swallow babies or adults inside the box. House sparrows have a terrible reputation for killing other species of birds in order to use their nest sites. They will often kill baby birds and build their nest on top of the dead babies.

Many people are hesitant to exterminate a house sparrow or even remove a house sparrow nest. It normally only takes one experience of looking into a Tree Swallow box and finding dead Tree Swallow babies or even adults that have been killed by house sparrows to realize how necessary it is to control house sparrows whenever they are seen near nest boxes. There are a variety of house sparrow traps available commercially to assist you.

A second reason nest boxes must be monitored regularly is because blowfly larvae may be present on the babies. These flies are parasites and if allowed to go unchecked, may greatly weaken or even kill baby Tree Swallows. If blowflies are present in the nest box, pick the babies up and flick the blowflies off. Be sure to look under the baby birds' wings for scars or even the larvae. After removing the blowflies, discard the old, infested nest. Use some dried lawn grass to make a new nest in the shape of the old one, then replace the young in the nest. The saying that adult birds will not care for young who have been handled by humans is not true; however, it is important to replace the young quickly to prevent them from getting cold as well as to allow the parents to return to feed them.

Finally, it is important to know approximately when the eggs hatched to determine the date they should fledge or leave the nest. This is helpful in the event some or all of the babies go

missing well before the anticipated fledge date. If this occurs, you may have a problem with predators gaining access to the nest box. The normal amount of time from hatching to fledging for a young Tree Swallow is 17 to 18 days.

When, How, and What to Monitor

Nest monitoring should begin around the end of April and last through the beginning of August. As mentioned earlier, nest boxes should be monitored once a week during the breeding season. Try to avoid monitoring during cold, rainy, damp, or windy days to prevent chilling the chicks or eggs.

The nest box should be opened carefully and quietly. Be careful not to let any eggs or chicks fall out of the nest. First, try to determine what kind of bird's nest is in the box. This may be done simply by observing the species of bird entering and exiting the box. Or, you may identify the nest by observing its specific characteristics—the different birds that may be found in your Tree Swallow nest box make different types of nests. The following section includes descriptions of four different bird nests and their eggs.

Bird Nest and Egg Descriptions

Tree Swallow—The Tree Swallow's nest is built with slightly coarser grasses than the bluebird's. The nest cup is normally flatter than the bluebird's and is often lined with feathers or even paper scraps. Tree Swallows normally lay between 5 and 7 white eggs that are smaller than the bluebird's eggs.

Bluebird—The bluebird's nest is built with fine grasses or pine needles and is normally 1 to 4 inches tall. Bluebird eggs are normally between 4 to 6 in number and usually blue and sometimes white.

House Wren—The house wren's nest is easily identified because they will fill a nest box up with sticks. The nest cup will be toward the back of the box and may be lined with feathers or fine plant material. The 6 to 8 eggs house wrens lay are tan with brown specks and rather small.

House Sparrow—House sparrow nests can be described as "junky." House sparrows normally build a tall nest out of long, tall grasses made into a tunnel. Often these nests contain different types of garbage such as paper, cellophane, and twine. House sparrows usually lay between 5 to 7 brown speckled eggs.

After the chicks have hatched, it is important to look under the nest for blowfly larvae. If blowfly larvae are found, follow the steps outlined above to rid the nest box of the larvae. While inspecting the chicks, be sure to put them in some sort of container that will keep them out of the sun, but will also keep them warm.

If you need to dispose of used nest material, it is important not to dispose of it near the nest box to prevent attracting predators.

At the end of the breeding season, all nests should be removed from the nest boxes. Spray the inside of the box with a 2 percent bleach solution to kill any parasites that may be left in the box.

Actively monitoring and maintaining your Tree Swallow nest boxes throughout the breeding season will likely pay off in healthier and more numerous fledglings.

References

Robertson, R.J., B.J. Stuchbury, and R.R. Cohen. 1992. "Tree Swallow." In *The Birds of North America*, No. 11 (A. Poole, P. Stettenheim, and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Attracting the Beneficial Tree Swallow

by

M. Allan Daly
Extension Educator
Maryland Cooperative Extension

Kirk W. Myers
Assistant Program Coordinator
National Youth Science Foundation

Reviewers

Dave Martin
Extension Educator
Maryland Cooperative Extension
Baltimore County

Shannon Potter
Extension Educator
Maryland Cooperative Extension
Harford County

Darrin Magee
Executive Director
National Youth Science Foundation
Seattle, Washington

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, University of Maryland, College Park, and local governments. Thomas A. Fretz, Director of Maryland Cooperative Extension, University of Maryland.

P2002