

## Selecting a House

In the bird house business, there's no such thing as "one size fits all." Decide which bird you want to attract, then get a house for that particular bird. Look through any book or catalog and you'll see bird houses of all sizes and shapes, with perches and without, made of materials you might not have thought of: recycled paper, gourds, plastic, rubber, pottery, metal and concrete. The proper combination of quality materials and design makes a good birdhouse.



*photo: Bill French/  
USFWS*

## Materials

Wood is just about the best building material for any birdhouse. It's durable, has good insulating qualities and breathes. Three-quarter-inch thick bald cypress and red cedar are recommended. Pine and exterior grade plywood will do, but they are not as durable.

It makes no difference whether the wood is slab, rough-cut or finished, as long as the inside has not been treated with stains or preservatives. Fumes from the chemicals could harm the birds.

There's no need to paint cypress and cedar, but pine and plywood houses will last longer with a coat of water-based exterior latex paint. White is the color for purple martin houses. Tan, gray or dull green works best for the other cavity nesting species. The dull, light colors reflect heat and are less conspicuous to predators. Don't paint the inside of the box or the entrance hole.

Regardless of which wood you select, gluing all the joints before you nail them will extend the life of your bird house. Galvanized or brass shank nails, hinges and screws resist rusting and hold boxes together more tightly as they age.

Resist the temptation to put a metal roof on your bird house. Reflective metal makes sense for martin houses up on a sixteen-foot pole, but when it's tacked onto the roof of a wood chickadee house, the shiny metal is more likely to attract predators.

Natural gourds make very attractive bird houses. They breathe, and because they sway in the wind they are less likely to be taken over by house sparrows and starlings.

Grow your own gourds and you'll have dozens to choose from in the years ahead. If you don't have the space to grow them, a coat of polyurethane or exterior latex (on the outside only) will add years to the one you have.



Properly designed pottery, aluminum (for purple martins only), concrete and plastic houses are durable, but don't drop them.

Be sure to provide ventilation, drainage, and easy access for maintenance and monitoring. Concrete (or a mix of concrete and sawdust) offers protection other houses cannot: squirrels can't chew their way in.

### **Design**

How elaborate you make your bird house depends on your own tastes. In addition to where you place the box, the most important considerations are: box height, depth, floor dimensions, diameter of entrance hole and height of the hole above the box floor.

Refer to the following chart before building your nest box, keeping in mind that birds make their own choices, without regard for charts. So don't be surprised if you find tenants you never expected in a house you intended for someone else. Now that you have the correct dimensions for your bird house, take a look at how to make it safe: ventilation, drainage, susceptibility to predators, and ease of maintenance.

### *Ventilation*

You should provide air vents in bird boxes. There are two ways to provide ventilation: leave gaps between the roof and sides of the box, or drill  $\frac{1}{4}$  inch holes just below the roof.

### *Drainage*

Water becomes a problem when it sits in the bottom of a bird house. A roof with sufficient slope and overhang offers some protection. Drilling the entrance hole on an upward slant may also help keep the water out. Regardless of design, driving rain will get in through the entrance hole. You can assure proper drainage by cutting away the corners of the box floor and drilling  $\frac{1}{4}$ -inch holes. Nest boxes will last longer if the floors are recessed about  $\frac{1}{4}$  inch.

### *Entrance Hole*

Look for the entrance hole on the front panel near the top. A rough surface both inside and out makes it easier for the adults to get into the box and, when it's time, for the nestlings to climb out.

If your box is made of finished wood, add a couple of grooves outside below the hole. Open the front panel and add grooves, cleats or wire mesh to the inside. Never put up a bird house with a perch below the entrance hole. Perches offer starlings, house sparrows and other predators a convenient place to wait for lunch. Don't be tempted by duplexes or houses that have more than one entrance hole. Except for purple martins, cavity-nesting birds prefer not to share a house. While these condos look great in your yard, starlings and house sparrows are inclined to use them.

### *Accessibility*

Bird houses should be easily accessible so you can see how your birds are doing and clean out the house. Monitor your bird houses every week and evict unwanted creatures such as house sparrows or starlings.

Be careful when you inspect your bird boxes—you may find something other than a bird inside. Don't be surprised to see squirrels, mice, snakes or insects. Look for fleas, flies, mites, larvae and lice in the bottom of the box. If you find insects and parasites, your first reaction may be to grab the nearest can of insect spray. If you do, use only insecticides known to be safe around birds: 1 percent rotenone powder or pyrethrin spray. If wasps are a problem, coat the inside top of the box with bar soap.



Here's how to check your nest boxes for unwanted visitors:

Watch the nest for 20–30 minutes. If you don't see or hear any birds near the box, go over and tap on the box. If you hear bird sounds, open the top and take a quick peek inside. If everything is all right, close the box. If you see problems (parasites or predators), remove them and close the box.

A bird house with easy access makes the job simple. Most bird houses can be opened from the top, the side, the front or the bottom. Boxes that open from the top and the front provide the easiest access. Opening the box from the top is less likely to disturb nesting birds. It's impossible to open a box from the bottom without the nest falling out. While side- and front-opening boxes are convenient for cleaning and monitoring, they have one drawback: the nestlings may jump out. If this happens, don't panic. Pick them up and put them back in the nest. Don't worry that the adults will reject the nestlings if you handle them. That's a myth; most birds have a terrible sense of smell.

If you clean out your nest boxes after each brood has fledged, several pairs may use the nest throughout the summer. Some cavity-nesting birds will not nest again in a box full of old nesting material.

In the fall, after you've cleaned out your nest box for the last time, you can put it in storage or leave it out. Gourds and pottery last longer if you take them in for the winter. You can leave your purple martin houses up, but plug the entrance holes to discourage starlings and house sparrows.

Leaving your wood and concrete houses out provides shelter for birds, flying squirrels and other animals during winter. Each spring, thoroughly clean all houses left out for the winter.



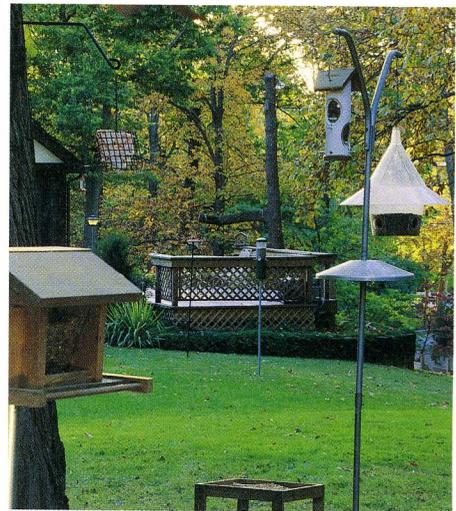
### *Limiting Predator Access*

Proper box depth, and roof and entrance hole design will help reduce access by predators, such as raccoons, cats, opossums, and squirrels. Sometimes all it takes is an angled roof with a three-inch overhang to discourage small mammals.

The entrance hole is the only thing between a predator and a bird house full of nestlings. By itself, the  $\frac{3}{4}$ -inch wall is not wide enough to keep out the arm of a raccoon or house cat. Add a predator guard (a  $\frac{3}{4}$ -inch thick rectangular wood block with an entrance hole cut in it) to thicken the wall and you'll discourage sparrows, starlings, and cats.

### **Bird House Placement**

Where you put your bird house is as important as its design and construction. Cavity-nesting birds are very particular about where they live. If you don't have the right habitat, the birds are not likely to find the house. You can modify your land to attract the birds you want to see by putting out a bird bath, planting fruit-bearing shrubs, including more trees or installing a pond with a waterfall.



Once you've matched up the right bird house with the appropriate habitat, you have to know where to put the nest box. Should you hang it from a tree limb, nail it to a fence or mount it on a pole or a tree trunk?

Most species require a fairly narrow range of heights for nest boxes. After checking the table in this brochure, pick a height that's convenient for you. After all, you will want to watch what goes on and keep the box clean. If you want to watch chickadees from your second floor window or deck, fifteen feet is reasonable but it's a lot easier to clean out a box at eye level.

Here are some tips on where to put bird houses:

don't put bird houses near bird feeders.

houses mounted on metal poles are less vulnerable to predators than houses nailed to tree trunks or hung from tree limbs.

use no more than four small nest boxes or one large box per acre for any one species.

put about 100 yards between bluebird boxes and 75 yards between swallow boxes. (If you have both species, pair the houses with one bluebird box 25 feet from a swallow box.)

don't put more than one box in a tree unless the tree is extremely large or the boxes are for different species.

if you have very hot summers, face the entrance holes of your boxes north or east to avoid overheating the box.