## HOUSING GUIDELINES FOR THE BIRDS

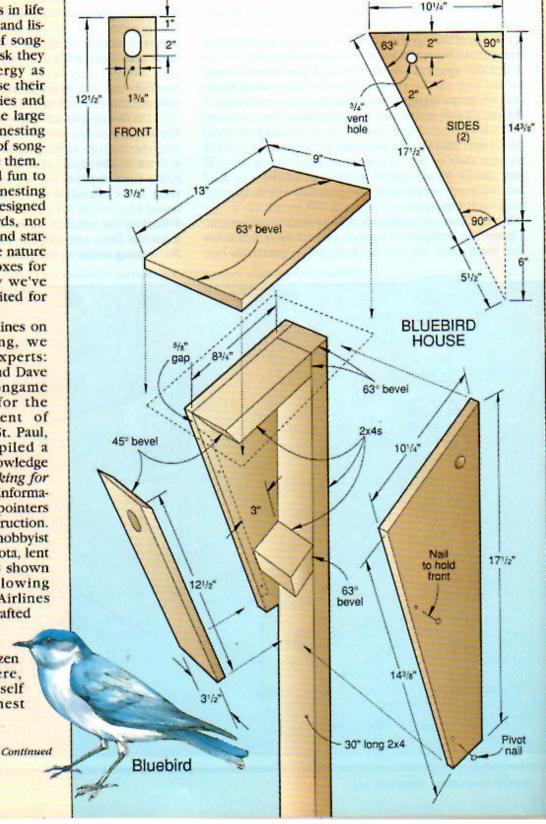
ou'll find few things in life as pleasant as watching and listening to the activity of songbirds. From dawn to dusk they display boundless energy as they nest, feed, and raise their families. But today's cities and suburbs usually lack the large old trees that provide nesting cavities for the dozens of songbird species that require them.

Luckily, it is easy and fun to simulate these natural nesting spots with birdhouses designed specifically for songbirds, not pesty house sparrows and starlings. You can even give nature a hand by providing boxes for waterfowl. That's why we've included a nest box suited for wood ducks.

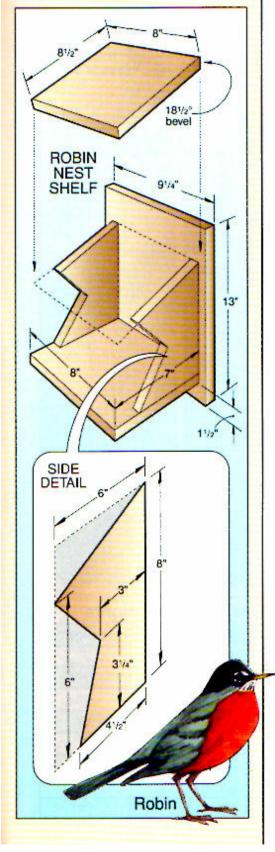
For advice and guidelines on proper home building, we turned to a pair of experts: Carrol L. Henderson and Dave Algren. Carrol, nongame wildlife supervisor for the Minnesota Department of Natural Resources in St. Paul, Minnesota, has compiled a decade of songbird knowledge for his book Woodworking for Wildlife (see ordering information on page 72). His pointers will guide you in construction. Dave, a woodworking hobbyist from Stillwater, Minnesota, lent a hand with the plans shown here and on the following pages. A Northwest Airlines pilot, Dave has handcrafted more than 26,000 birdhouses!

If you follow the dozen guidelines listed here, you'll guarantee yourself some of nature's finest entertainment.

Happy building!



There's probably no better project to introduce a child to woodworking than a birdhouse. And to get ready for the songbirds' spring house hunt, now's the time to start.



## 12 IMPORTANT DO'S AND DONT'S

Don't build a house just for "birds." Build houses, nesting boxes, and other structures with specific types of birds in mind because each species has different size and entrancehole requirements. See the chart on page 72 for suggested dimensions and allowable entrancehole sizes for songbird species. (A hole cut to the correct size keeps unwanted birds out. For instance, sparrows will enter holes 114" and larger.) Drill all holes-entrance and ventilation-at a slight upward angle to prevent rain from blowing in.

Wood is the preferred material for birdhouses. Metal does not provide heat insulation. But use only pine, cedar, redwood, or cypress—not treated wood or plywood—for functional birdhouses.

Assemble cedar and redwood birdhouses with galvanized screws or concrete-coated or ring-shank nails. If you don't, the joints will eventually loosen. For pine houses, use standard fasteners.

Always build the birdhouse so that the sides enclose the floor. This keeps rain from seeping into the sidewall/floor joint. To slow deterioration of the floor, recess it 14".

5 Make the front edge of the birdhouse roof overhang at least 2". The overhang protects the entrance hole from rain and keeps predators from reaching in from above.

So that you can clean out birdhouses semi-annually (before and after nesting season), always build them with a hinged side or roof. Use rust-proof hinges and either screw closure or a pair of roofing nails and wire to discourage raiding by raccoons.

Drill at least four %"-diameter drain holes in the bottom of a house (except on some special designs for bluebirds and wood duck nest boxes). Drain holes allow rain and condensation to escape. Clear them every time you clean the house.

For ventilation in all birdhouses (except duck boxes), drill at least two %" holes near the top on both sides. Wood provides great insulation, but interiors can overheat.

Never put a perch on a birdhouse. Perches encourage sparrows and European starlings, which compete with—and often kill—songbirds.

10 Do not paint, stain, or treat with preservative the inside of a birdhouse. You may coat the outside back of a birdhouse (the most prone to rot) with preservative, or paint the entire exterior.

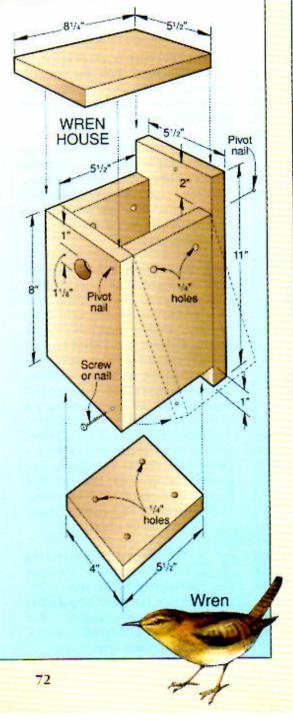
11 Firmly attach all houses to a support post, building, or tree. If you think that cats and/or raccoons will be a problem with a post mount, discourage them with sheet-metal shields tacked to the post. Or, smear the post with grease. Wren houses can swing suspended from an eave or tree limb with a two-point suspension system.

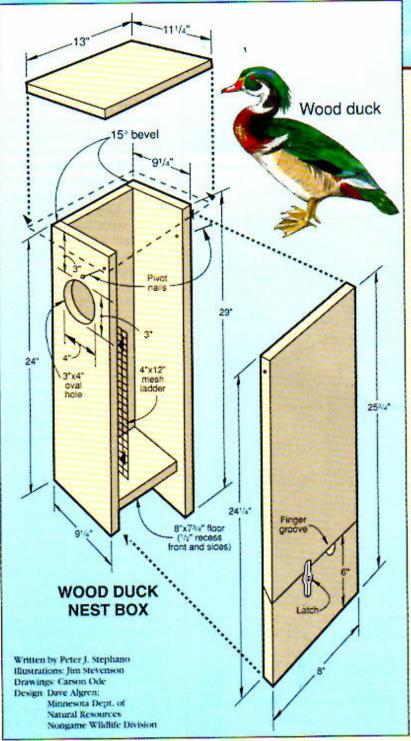
How high to mount a birdhouse? Most songbirds nest in a range of from 4-15' above the ground. Remember, though, that you need to reach it for cleaning. And remember to provide shade for at least part of the day.

12 To avoid territorial fights, space houses for songbirds at least 20' apart. Space bluebird houses 100 yards apart. Purple martins and wildfowl, such as wood ducks, don't defend their territories.

## FOR THE BIRDS

For more information on birds, birdhouses, and nesting boxes, order a copy of Woodworking for Wildlife, and for complete information on bird feeding, see Wild About Birds, the DNR Bird Feeder Guide, both by Carrol L. Henderson and published by Minnesota's Bookstore, 1992, 1995. The books cost \$10.95 each plus \$2 postage, from Minnesota's Bookstore, 117 University Ave., St. Paul, MN 55155 or telephone 800/657-3757.





Entrance-hole sizes and hole heights		
Bird	Entrance-hole size	Height
Bluebird	13/8×21/4" oval	7"
Wren	1" diameter	7"
Chickadee	11/8" diameter	7"
House finch	2" diameter	4"
Nuthatch	11/4" diameter	6"
Warbler	11/4" diameter	7"
Titmouse	11/4" diameter	6"
Wood duck	3×4" oval	18"