

BIRD NEST BOXES

Over 85 species of birds in North America use a cavity – like a hole in a tree – for their nest. Some birds like woodpeckers will excavate new cavities while others like wrens and flycatchers will nest in old cavities. Many species of cavity nesting birds, like woodpeckers, have declined over 50% in the last twenty years due to cutting down of trees, especially dead trees called snags. You can make the difference for cavity nesting birds by putting up nest boxes, letting dead trees stand (if safe), and not trimming during nest season from March to August. Always look for bird or animal nests before cutting.

DESIGN

Nest boxes should be designed for specific species:

- Inside dimensions
- Size of entry hole
- Distance from floor to entry hole
- Location placement
- Distance placed above the ground

Design Tips

- Use materials that are easy to clean and long lasting like recycled plastic.
 - Solid wood $\frac{3}{4}$ " thick (not particle board)
 - Recycled plastic $\frac{1}{2}$ " thick
- Create ventilation holes or vents near the top to keep the interior cool.
- Use a slanted roof for rain to drain off.
- Make drainage holes in floor.
- Put a fledgling ladder inside under the entry hole for baby birds to grip by cutting grooves into the material or securing a small piece of metal or plastic screen.
- Place a [predator guard](#) around the entry hole to prevent predators from accessing.
- No perches outside – the birds don't need them and they give predators a place to grip.
- Do not paint or stain the inside.

Placement

Locate the nest box in the habitat where the animal would normally nest like a tree, field, shrub, woods, etc.

- Put up new nest boxes in February before nesting season begins.
- Put up several nest boxes to limit competition, especially among wrens, bluebirds, and swallows.
- Space nest boxes at least 25 feet apart away from high human activity areas.
- Face the entry hole to the southeast or southwest and never facing a road.
- Place a [baffle](#) on the pole or a sheet of metal around a post or tree to prevent predators like snakes from accessing the nest box.



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Design Guide

Species	Floor Size (in)	Height Front (in)	Hole (in)	Floor > Hole (in)	Mount Height (ft)	Habitat	Comments
Cavity Nesters							
House Wren	4x4	7	1	5	4-10	Old fields & thickets	
Carolina Wren	4x4	7	1 3/8	5	5-10	Old fields & thickets	
Black-capped Chickadee	4x4	9	1 1/8	7	5-15	Open woods & edges	Add 3" wood chips
Tufted Titmouse	4x4	9	1 1/4	7	5-15	Woods & edges	Add 3" wood chips
White-breasted Nuthatch	4x4	9	1 3/8	7	5-15	Woods & edges	Add 3" wood chips
House Finch	5x5	8	1 1/2	6	5-10	Backyards & porches	Will nest in hanging baskets
Eastern Bluebird	4x4	10	1 1/2	8	4-6	Open land with scattered trees	
Tree Swallow	5x5	7	1 1/2	5	5-15	Open land near water	Escape ladder inside under hole*
Downy Woodpecker	4x4	9	1 3/8	7	5-20	Forest openings & edges	Add 3" wood chips
Hairy/Red-headed Woodpecker	6x6	12	2	10	8-20	Forest openings & edges	Add 4" wood chips
Northern Flicker	7x7	17	2 1/2	15	10-15	Forest openings & edges	Add 5" wood chips
American Kestrel	8x8	16	3	3	10-30	Open land with scattered trees	Add 3" wood chips
Eastern Screech-Owl	8x8	16	3	3	10-30	Farmland, orchards, woods	Add 3" wood chips
Barred Owl	14x14	26	8	8	15-30	Mature bottomland forest	Add 3" wood chips
Wood Duck	12x12	22	4	4	5 over water & 15 over land	Wooded swamps, bottomland	Add 3" wood chips & escape ladder inside under hole*
Open Nesters							
American Robin	6x8	8			6-15	Backyards & Porches	Place on side of building
Eastern Phoebe	6x6	6			8-12	Backyards & Porches	Place on side of building
Barn Swallow	6x6	6			8-12	Open areas & Farms	
Multispecies							
Chickadee, Titmouse, Nuthatch, Wrens, Downy Woodpecker	4x4	8	1 1/4	6	4-20	See above	Add wood chips
Bluebird/Tree Swallow	5x5	8	1 1/2	6	5	See above	
Hair and Red-headed Woodpecker, Saw-whet Owl	6x6	11	2 1/2	9	15-20	See above	Add wood chips

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Flicker, Screech-owl, Kestrel	8x8	16	3	13	12-20	See above	Add wood chips
*Escape ladder consists of grooves carved into inside of front panel or hardware cloth stapled under hole. Sources: Shalaway (1995); Terres (1994); Pistorius (1981).							

Nest Material

- Put nest material like dryer lint and 4" or smaller pieces of string into a wire cage or mesh bag and hang from tree branches.
- Break twigs into 3" to 6" lengths and scatter on the ground.

For more information about nest materials, breeding period, eggs, incubation period, broods, and fledge time download the [Wild Birds Unlimited Nesting Behavior Chart](#).

Maintenance

- Leave nest boxes up all year – many birds like bluebirds, chickadees, nuthatches, titmice and woodpeckers will roost in them during winter to stay warm.
- After nesting season ends in the fall remove old nests and clean with a solution of 1 part vinegar and 9 parts water, let dry and refill with nest material like wood chips.

RESOURCES

- [Coveside Conservation Nest Boxes](#)
- [Audubon Eastern Bluebird](#)
- [Purple Martins](#)
- [Wild Birds Unlimited Nest Boxes](#)
- [Wild Birds Unlimited Nesting Behavior Chart](#)
- [Woodworking for Wildlife](#)