

# Creating Safe Nest Boxes

## *Fundamentals of a good birdhouse*

Many birds rely upon nest cavities (holes) in trees. Some of these species include woodpeckers, owls, swallows, bluebirds, chickadees, and some ducks. Today, cavities are limited due to competition from European Starlings and House Sparrows, and lack of standing dead trees. Nest boxes, if managed and constructed properly, can provide valuable cavities for many different bird species.

When constructing and placing nest boxes for Songbirds, it is important not to be doing more harm than help. Know what birds you are trying to attract and always think about:

- Design
- Placement
- Predation
- Monitoring
- Cleaning



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Western Bluebird  
3/12/05, Stanhou Mesa

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Western Bluebird (left) and Tree Swallow (right) are common inhabitants of nest boxes.

### How You Can Create Safe Nest Boxes:

- **Design:** Appropriate size and shape of a nest box keeps the occupants safe and excludes European Starlings and House Sparrows, which are non-native species. Include ventilation holes or slits in the top or side of the box. Entrance holes should be less than 1 1/8" in diameter. Box should be approximately 14" tall with the hole near the top. This design prevents predators from reaching the eggs or young birds. A hinged side will allow for cleaning and monitoring.
- **Placement:** Nest boxes should be at least 100 yards away from livestock feeding areas to reduce competition from House Sparrows. Individual box placement often varies by species' habitat needs. Do not place nest boxes in areas with outdoor cats or where pesticides are sprayed.
- **Predation:** Install a Noel predator guard (see Cornell Birdhouse Network in Resources) on the nest box post to prevent predators from climbing to the nest box hole. Do not use nest boxes with perches because they make places for jays and House Sparrows to sit before entering the box to prey on nesting birds or young.
- **Monitoring:** Know what is using your nest box! Monitor the box and contribute your data to the scientific community through the Cornell Birdhouse Network.
- **Cleaning:** Nest boxes should be cleaned after the breeding season. Remove all old nesting material since it is compacted and possibly contains parasites. Use a brush to remove all old nesting materials completely and then clean the box with a 10% bleach-water solution. Now it's ready for the next brood!

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### Specifications for Common Western Cavity Nesting Species

	Entrance hole diameter (inches)	# of eggs laid	Color of eggs	Incubation Period (days until hatched)	Chick Period (days chicks in box attended by adults)
<b>Songbirds</b>					
Ash-throated Flycatcher	1 ½	4-5	Creamy white, blotched with lavender and brown.	15	14-16
Bewick's Wren	1 ¼	5-7	White, flecked with brown and/or purple.	12-14	14
Black-capped Chickadee	1 ¼	6-8	White with fine, reddish-brown spots.	12-13	16
Chestnut-backed Chickadee	1 ¼	6-8	White or cream in color; sometimes unmarked, or speckled reddish brown and brown.	12-14	22-23
House Sparrow <i>(Undesirable: invasive, non-native)</i>	≥ 1 ⅛	4-6	Dull gray with brown spots.	10-13	14-17
House Wren	1 ¼	6-8	White (may be tinted pink or gray); heavily marked with lavender and/or brown spots.	13	12-18
Mountain Bluebird	1 9/16	5-6	Glossy, pale blue.	13	18-21
Mountain Chickadee	1 ¼	5-7	White with reddish dots	12-14	18-21
Oak Titmouse	1 ¼	6-8	White; unmarked or faintly marked with reddish brown.	14-16	16-21
Tree Swallow	1 ½	4-6	White (may be pinkish).	13-16	20
Violet-green Swallow	1 ½	4-6	White (may be pinkish).	13-14	16-24
Western Bluebird	1 9/16	4-6	Light blue.	13-14	17-18
White-breasted Nuthatch	1 ¼	5-8	White, pinkish-white, or cream-colored; heavily spotted with reddish brown	12	14

#### Additional Resources:

Cornell Birdhouse Network ([www.birds.cornell.edu/birdhouse/](http://www.birds.cornell.edu/birdhouse/))

Klamath Bird Observatory ([www.KlamathBird.org](http://www.KlamathBird.org))

North American Bluebird Society ([www.nabluebirdsociety.org](http://www.nabluebirdsociety.org))

OSU's "Build Nest Boxes for Wild Birds" (<http://extension.oregonstate.edu/catalog/pdf/ec/ec1556.pdf>)

"The Birder's Handbook" by Ehrlick, P.R., et al., PRBO Conservation Science ([www.probo.org](http://www.probo.org))