Nest-Box Guide for Virginia’s Cavity-Nesting Birds

Virginia is home to many unique bird species that rely on cavities for nesting and raising their young. Normally, these birds would take full advantage of any natural holes in dead standing trees (i.e. snags), many of which are made by woodpeckers that create their own nesting cavities each year, or from branches that have broken free and created an opening. Therefore, unless they pose a safety risk, it is critical to leave snags standing.

However, natural cavities have become limited where snags have been removed. Nest-boxes can be used as a surrogate cavity to attract many of our cavity nesting bird species. Over the years we have been able to refine the designs of nest-boxes to maximize the likelihood that a target species will be able to successfully use the box.

**Eastern Bluebird**
- **Dimensions:** 9"x5.5"x5.6"
- **Entrance Size:** 2.25"x1.37"
- **Height From Ground:** 4-6'
- **Space Between Boxes:** 300'
- **Orientation:** East
- **Habitat:** Grassland, Open Woodland
- **Attach To:** Pole, Fence Post

**Prothonotary Warbler**
- **Dimensions:** 8"x5.5"x5.5"
- **Entrance Size:** 1.25"
- **Height From Ground:** 4-12'
- **Space Between Boxes:** 235'
- **Orientation:** Towards water
- **Habitat:** Wetland
- **Attach To:** Dead or Live Tree, Pole

**Wood Duck**
- **Dimensions:** 24"x8"x9.25"
- **Entrance Size:** 3"x4"
- **Height From Ground:** 6-30'
- **Space Between Boxes:** 600'
- **Orientation:** Toward Water
- **Habitat:** Wetland
- **Attach To:** Pole in Water or on Bank

**Eastern Screech-Owl**
- **Dimensions:** 17.37"x9.62"x11.25"
- **Entrance Size:** 3"x4"
- **Height From Ground:** 10-30'
- **Space Between Boxes:** 100'
- **Orientation:** Any
- **Habitat:** Forest, Open Woodland
- **Attach To:** Live Tree, Pole

**House Wren**
- **Dimensions:** 8"x5.5"x5.5"
- **Entrance Size:** 1"
- **Height From Ground:** 5-10'
- **Space Between Boxes:** 100'
- **Orientation:** Any
- **Habitat:** Forest, Open Woodland, Shrub
- **Attach To:** Dead or Live Tree, Building, Pole

The box specifications above come from Cornell University’s NestWatch Program. www.vaworkinglandscapes.org - Illustrations are by Nick Garnhart
- Predator guards are an important way to protect the birds inside the box. There are many designs that are not necessarily depicted here, but many involve a slippery baffling, hardware cloth, or both.
- The exact diameter of the entrance hole is not only important for accommodating your target species, but also for excluding predators.
- Critically important: the inside face of a nest-box should never be smooth; either etch out notches in the wood, install an interior perch, or add hardware cloth to act as a ladder. Birds often need something to grip in order to leave the box.
- Opening the nest-box during the nesting season can pose a serious risk to the birds and eggs inside. It is best to leave the box closed and enjoy the activity around the box from a distance.
- Nest-boxes should be cleaned out once a year to reduce the likelihood of parasites and disease. Be sure to do so outside the nesting season, which is different for each species.

American Kestrel
Dimensions: 17.37"x9.62"x11.25"
Entrance Size: 3"x4"
Height From Ground: 10-30'
Space Between Boxes: .5 Miles
Orientation: South/East
Habitat: Grassland, Open
Woodland
Attach To: Pole

Barred Owl
Dimensions: 23"x13"x13"
Entrance Size: 7"
Height From Ground: 12-15'
Space Between Boxes: .5 Miles
Orientation: Any
Habitat: Forest
Attach To: Live Tree, Pole

Chimney Swift
Dimensions: 8-12"x2.5"x2.5"
Entrance Size: 11.2"
Height From Ground: 8-12'
Space Between Boxes: n/a
Orientation: Upwards
Habitat: Grassland, Town, Open
Woodland
Attach To: Building or Freestanding Tower

Barn Owl
Dimensions: 16"x12.37"x22.75"
Entrance Size: 4.5"x3.75"
Height From Ground: 8-25'
Space Between Boxes: 100'
Orientation: Any
Habitat: Grassland, Open
Woodland
Attach To: Building, Pole, Silo

Purple Martin
Dimensions: 6"-12"
Entrance Size: 2.12"
Height From Ground: 10-20'
Space Between Boxes: 10'
Orientation: South/West
Habitat: Wetlands, Ponds, Grasslands, Urban
Attach To: Pole

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