



# How to Build a Better Bluebird House

By Sue Olcott

Perusing a home and garden catalog or walking down the “bird” aisle at a garden center can present you with a bewildering array of nestbox designs for cavity-nesting birds -- especially bluebirds. Which one is better?

First, one must define “better”. Should better be what a bluebird prefers, or should it mean the box design in which a bluebird pair successfully raises their young to fledging (flying) stage in today’s challenging environment? The health of your local population of bluebirds depends on them successfully raising their young, so the second definition is the most sound.

Four researchers in Wisconsin made a start in answering the question, “Which is the best bluebird house?” Between 1968 and 1994, they tested four different types of bluebird nestboxes by collecting data on preferences and adult/egg/nestling survival on a total of 2,600 nesting



Monitoring bluebird boxes is a great educational activity.

Keith Weller/NRCS Photo

attempts. Bluebirds preferred the standard wooden nestbox with a sloping roof. The researchers discovered, however, that this style of nestbox did not protect the nestling or adults from predators (if no predator guard was used) or especially nestbox competitors, such as house wrens and house sparrows.

Their data showed that a wooden design with an open top covered with screening, dubbed the Bauldry nestbox, fledged more young because of less predation and competition. This box design mimics rotted-out wooden fence posts which bluebirds frequently used for nesting during the first half of the 1900s before many were replaced by fence posts made of metal or pressure-treated lumber. Researchers concluded that the open top deterred house wrens and house sparrows. The entrance hole was also higher on the side, deterring predators by making the nest too far away for

them to reach. The other two artificial nestbox designs – tin can and hollow post – were not used as much in the study and generally had lower production than the open-top design.

The story doesn’t end there, however. Other bluebird researchers tried to replicate this team’s results without success. Kevin Berner, a wildlife researcher in New York, studied the open-top box along with several other bluebird box designs. He documented that house wrens readily used open-top boxes. Researchers in Minnesota, Wisconsin and Missouri also found fault with the open-top design, especially in regards to higher mortality from wet and cold nests, and from the fact that it did not deter use by house sparrows and house wrens. Even though Bauldry used the open-top design with significant success, that success could not be replicated elsewhere.



Male eastern bluebird babysitting a newly fledged youngster.

Mark Shock

So what is the best bluebird box to install on your property? Based on the results of these studies, consider these guidelines ...

1. Use a traditional wooden box design sized for bluebirds with a predator guard on the post or at the opening. Make sure it is well constructed using wood at least ½-inch thick.
2. Position the box well away from shrubby and brushy areas preferred by house wrens.
3. If you live in an area with house sparrows, consider using the Gilbertson box design. It is made from four-inch PVC pipe, and is constructed to deter house sparrows by making the box too shallow for them. A predator guard is required for it. This design has been used with good results near a shopping mall in Morgantown, West Virginia.

Plans for these boxes may be obtained at [www.audubon-omaha.org/bbox](http://www.audubon-omaha.org/bbox). Plans for traditional boxes for bluebirds and other cavity nesters may be obtained from the WVDNR Wildlife Diversity Program by writing to them at: P.O. Box 67, Elkins, WV 26241 or send an email request to [wildlife@wvdnr.gov](mailto:wildlife@wvdnr.gov).

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Female bluebird inspects a potential nestbox.

Mark Shock

## Bluebird Nest Box

