

WOODWORKING FOR NATURE



A PROGRAM OF LAND CARE NIAGARA



EASTERN BLUEBIRD BOX

Installation and Management Instructions

Introduction

Throughout the years, vast areas have been cleared for developmental purposes, resulting in the loss of habitat for birds. Specifically, old trees have been removed, and wooden fence posts have been replaced with metal ones, which reduces the supply of natural cavities for cavity nesters [3]. This in combination with the introduction of non-native aggressive bird species permitted the Eastern Bluebird (*Sialia sialis*) to be out-competed [3]. This caused a drastic reduction in their population, leading to the implementation of conservation efforts.

Where tree cavities and snags numbers are limited, artificial nest boxes are capable of enticing birds to occupy the area. These nest box structures provide a secure nesting place for occupants. They are better than natural sites, because artificial nesting structures can be constructed to resist predators, parasites, and extreme weather events [1]. Bluebird boxes, for example, can be made to have a small entrance hole to exclude unwanted species occupancy. These other or unwanted species of birds include the House Wren, House Sparrow and the European Starling, as they compete against the Bluebird for nest cavities. The ideal habitats for Bluebirds are open woodlands, edge habitats, and short grasses with plenty of perching sites from which the birds can locate prey [1].

Nest Box Construction

Design: Boxes are designed to allow water to flow over the roof and prevent water from entering the structure. Holes can be made in the bottom to prevent flooding and allow the box to dry more quickly; this depends on the design of the box. The boxes are also designed to be easily accessed by monitors or researchers.

Mounting Bluebird Nest Box

- Nest boxes should be mounted on a metal pole at approximately 5 feet (1.52m) off the ground
- Greasing or waxing the poles deters predators such as raccoons, snakes, hawks ect., however this requires reapplication. Constructing a predator guard resolves this problem with multiple different design including a cylindrical metal stove-pipe-shaped baffle, PVC pipe guard, and sheet metal guard all of which attached to the pole.
- Fastening the nest box to the pole can be done using pipe clamps and various other materials that you may have around unused.

Location and Placement

The location of a nest box is one of the most important considerations in not only attracting birds, but also in optimizing their chances for successful nesting. Several sources reveal that the bluebirds, as well as other species, have distinct preferences to habitat, nest box orientation, urbanized areas, vegetation height, and even artificial cavities.

Habitat Preferences: Bluebird prefers habitat in open country surrounded by trees on which they can perch on [1]. Understory and ground vegetation should be minimal as well [1]. Despite being a field species, Bluebirds tend to have a higher fledging survival rate in areas of dense forest and close trees [1].

Position of Entrance Hole: An analysis strongly suggests that Eastern Bluebirds show a significant preference for nest boxes whose entry hole faces in an easterly direction or 45 degrees northeast to 180 degrees south [3,5].

Placement of Multiple Bluebird Nest Boxes: Several authors reported on the value of using paired nesting boxes [5]. Due to Bluebirds being highly territorial, it is usually unproductive to mount nest boxes closer than 91.44 meters apart which will lessen Bluebird to Bluebird conflict [5]. However, by placing paired nest boxes a few feet apart, a territorial pair of tree swallows will chase other tree swallows from the vicinity of their nest, and in doing so they keep the other box available for Bluebirds [5]. Therefore when installing multiple boxes, pairing boxes 6.1 to 7.6 meters were recommended to manage Bluebird-Swallow competition [5].

Monitoring and Maintenance

Monitoring: Check your nest box at a minimum two times a week during the summer nesting season, preferably during the morning hours. Be sure to record your findings of the nest box location and contents as these are important to Bluebird management. Do not open the nest box when young are 12-13 days old as in doing so could result in the nestling leaving the box prematurely when they are not capable of flying.

Maintenance: Nest boxes should be cleaned out after each brood of young leave the nest. This includes removing the nest and washing out the interior with a 10% bleach to water solution. Ensure that it is thoroughly rinsed with water and let air dry. To extend the life of your nest box, you can store it inside a shed or garage from October to March and remount it early spring.

Keep us informed on the success of the structure and share with us on our facebook page!

References & Further Information

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