



PROJECT NEST BOX

2024 Edition



Project Nest Box supplies recycled bird nest boxes to K-12 schools in North America, fostering student-nature connections.

Table Of Contents



Welcome Message

Project Nest Box Introduction

03

Project Timeline

Installation & Monitoring Schedule for Nest Boxes

04

The Process

Registration, Construction & Site Selection Overview

05

Eastern Birds

Placement Recommendations for House Sparrows, House Wrens, Chickadees, Bluebirds, and Swallows

06

Western Birds

Western Bluebird, House Wren, Mountain Bluebird, Violet-Green Swallow, Tree Swallow, and Black-Capped Chickadee

07

FAQ

Frequently Asked Questions (FAQ) for Project Nest Box Implementation and Management

08-10

Installation & Assembly

Step-by-step directions for installation and assembly

11-15





Welcome To Project Nest Box

Welcome to Project Nest Box, where students embark on an exciting adventure into the world of our feathered friends! This school program brings the magic of local bird species' nesting habits right into the classroom.

So, why be a part of this avian extravaganza? Because these birdwatching escapades are not just for fun – they're for a feathered cause! By joining Project Nest Box, you're contributing to the epic tale of bird conservation, ensuring our chirpy friends continue to enchant us with their melodious tunes. So, grab your binoculars, put on your birdwatching cap, and let the feathery festivities begin





Project Timeline

March/April

- Build boxes - Install posts as soon as the ground is soft.
- Mount boxes on posts (see instructions) - Recommended by the second week of April.

April

- Begin monitoring the Nest Boxes two Weeks after installation.
- Set Earth Day (April 22) as a target date to begin monitoring.

April through July

- Monitor the boxes bi-weekly.
- Report your observations online at: http://www.birdscanada.org/dataentry/nw_login.jsp

September/October

- Clean out the boxes, removing any nests and debris to prepare for the spring nesting season.
- Drive your posts and mount your boxes now so they will be ready for the next migration.





The Process



1 Constructing the Boxes

- Construct your nest boxes using the easy-to-follow assembly instructions found on our website. The instructions are available in both English and French.

2 Selecting the Site Location

- Select your nest box site locations using the suggestions on this page and the adjoining map illustrating a typical school yard.

3 Installing Nest Boxes on Posts

- Mount the boxes to the posts as indicated on the installation instructions found on the last page of this guide.

4 Field Note Sheets

- Bird Studies Canada has developed standard forms for use while in the field monitoring the boxes. Samples of these forms are found below. Submit data on the Project NestWatch website at https://naturecounts.ca/nc/pnw/nw_data.jsp

5 Registering and Submitting Data

- Transfer data from the field note sheets to Bird Studies Canada's online Nest Record Scheme
- On your first visit to the site, register at <https://naturecounts.ca/nc/pnw/register.jsp>
***Please note: there is no fee to participate.**



Eastern Birds



Swallow

- Nests in most boxes, regardless of location.
- Avoids woodland and prefers areas along the boundary fence or open spaces.



Bluebird

- Prefers open areas with scattered trees.
- Locate boxes along boundaries, especially near farms or parkland with grassland.



Chickadee

- Prefers areas with scattered trees and shrubs, nests in woodland too.
- Place boxes along the boundary in well-planted gardens or near woodland.



House Wren

- Uses boxes along school boundaries near well-treed gardens.
- Avoids exposed locations, may fill nearby nest boxes with twigs.



House Sparrow

- Common in urban areas, uses almost any box except in dense woodland.
- Nest boxes will contain a mass of materials, including grass and plant stems, feathers, and general debris



Western Birds



Tree Swallow



- Prefers nesting in natural tree cavities, including old woodpecker holes.
- Avoids areas with heavy human activity, noise, or competition.



Violet-Green Swallow



- Prefers nesting in tree cavities and nest boxes.
- Avoids areas with heavy human activity or disturbances.



Mountain Bluebird



- Prefers nesting in open habitats like meadows and hilly areas.
- Avoids densely wooded areas and locations with significant human disturbance or development.



House Wren



- Favors nesting in various concealed locations such as tree cavities, shrubs, or nest boxes.
- Avoids areas with high human activity or disturbance.



Western Bluebird



- Nests in cavities of woodlands or areas with scattered trees.
- Avoids densely wooded habitats and locations with significant human activity or disturbance.



Black-Capped Chickadee



- Commonly nests in tree cavities, often within deciduous or mixed woodlands.
- Avoids locations with excessive disturbance or high human activity.

Frequently Asked Questions & Helpful Hints

Q: In the monitoring instructions, it's recommend to use a small mechanics mirror or bicycle mirror. What is the mirror used for?

A: Use the mirror to help you to see inside the nest. This will help you to accurately count the number of eggs or baby birds.



Q: Can I touch the eggs? I can't see all of the eggs. I am concerned that the eggs are cold.

A: Yes, however, touch the eggs only if you need to. While we do not recommend that you pick up or handle the eggs, you may touch the eggs very gently to count them or if you are unsure if they are cold or warm. Gently touching the eggs will not deter the mother from caring for them. However, using the mirror is the recommended way to count the eggs and babies. If you have been observing the nest box and have not seen any adults in the vicinity for some time and are concerned that the mother has not returned to the nest to care for the eggs, you may want to gently touch the eggs to check for warmth. If they are cold, leave the eggs in place and note on your monitoring sheet and online recording that the eggs were cold. You will discover on subsequent visits if they were truly cold as they will remain un-hatched for weeks and you will not see adult activity at or near the box. Still leave the eggs in the nest and remove them with the nest when you clean out the boxes in the Fall.

Q: Can I touch the baby birds?

A: No, we do not recommend that you touch the baby birds in the nest. Using the mirror is the recommended way to count the eggs and babies.

””

Q: What should I do if the adult bird doesn't leave the nest when I open the box?

A: Close the door, stand aside and give the bird a few minutes to see if she will leave on her own. If not, you may want to come back a bit later. (Don't forget to secure the box door with the locking screw before leaving the area.)

Before opening any box, remember to give a very gentle tap on the side of the boxes to give the bird a chance to leave before you open the boxes. Stand aside to give the adult room to fly out.

””

Q: It has been unseasonably hot/cold. Can I still check the box?

A: If the temperatures outside have changed dramatically over a short period of time (ie: cold snap in the spring or extreme heat wave in the summer) wait to check the boxes until the temperature become more seasonal. The adult birds will be working hard at maintaining a good temperature inside the box (incubating or cooling their young as required) and opening the box may affect their hard work. Also, it is not recommended to open the boxes during strong winds.

””

Q: What should I do if I see a young bird fallen out of the nest? *

A: Although this may be difficult to accept, the general rule in such a case is to refrain from doing anything and hope for the best. Most attempts to save the bird (especially a bird that may not need to be saved in the first place) will do more harm than good. Therefore, examine the situation carefully before attempting anything. It is not uncommon that birds will wander a short distance from the nest during the last days before fledging, and if parents are around, they will continue to care for them. Look at the feathers, especially the wing feathers to see if they are well opened. If so, it is best to leave the bird where you find it, unless there is an immediate risk such as a cat nearby, in which case you may try to find a secure place on a higher branch near where you found the bird. If the bird is younger (e.g., feathers not completely opened and not covering the entire body), you should attempt to place the young back in its nest. If the nest is too high, you can try building a little improvised platform (e.g., a small plastic container lined with small twigs) and placing it on a branch. Then, leave the nest alone and if you want to observe the parents coming back, do so from a distance.

What you should **NOT** do:

- Wait around the nest to see if the parents will come back. If you are visible, they will not come back.
- Try to feed the bird yourself. A diet that is not perfectly adapted will kill the young. Moreover, young birds need to be fed several times every hour, all day long: you will not be able to keep up.
- Give water. Young birds do not drink in nature, but receive their water from the food they eat. Remember that the longer you stay with the young, the smaller will be its chances of surviving.
- From Bird Studies Canada's FAQ page <http://www.birdscanada.org/volunteer/pnw/index.jsp?targetpg=nwfaq&lang=EN#e>

””

Q: How long do I need to monitor the boxes after the birds have left?

A: Once the baby birds have left the nest, generally mid-July, you may stop monitoring the nest. Some birds, such as Eastern Bluebirds and House Wrens, can have two broods in a season, and House Sparrows can have up to three broods - the final broods in late July or August. If you can, continue to monitor these nests until the final brood has fledged.

Questions About Data Entry

Nest Location, Step 2, Entering the Nest Box Coordinates

Q: On the "Nest Location" page of the data entry, Step 2, I selected "find coordinates here" to enter the Latitude and Longitude of our nest boxes but the map put me in central Ontario even though I entered my postal code. What should I do?

A: The postal code does not affect the 'Coordinates' section of the data entry. The coordinates need to be entered separately. Bird Studies Canada has an online map which will easily help you determine the exact Latitude and Longitude of your nest boxes. These coordinates aid BSC with the accuracy of the data.

To find your exact Latitude and Longitude, click on "find coordinates here" located below your postal code. A map will pop-up. The red 'you are here' balloon defaults to central Ontario. Using your mouse, click and drag the map, moving the map until your location is in the center of the view. The red balloon will automatically move to the center of the screen. (You cannot drag and drop the balloon.) Use the '+' sign on the left side of the map to zoom in as close as you can to your exact location, moving and centering the balloon as you go. (Click "Satellite" at the top right of the map to get a topographical view).

Once you have located the nearest to exact location of the nest box, jot down the Latitude and Longitude as indicated above the map (this is in case the next step doesn't work). Then click the "Transfer" button at the top right of the map to transfer the coordinates to your page or alternately, transfer the coordinates to the page yourself in the spaces provided.

Change of Species

Q: The nest in our box started out as one species (ie: Tree Swallow) and now has a different bird in it (ie: House Sparrow). How do I fill out the online data sheets?

A: You must fill out a separate sheet for each species that occupies each box. You started your first sheet by selecting the species (ie: Tree Swallow) from the drop-down list. You must finish that sheet by noting the outcome for that species.

In the "Nest outcome" section of the database (located at the bottom of the page in 'Step 3: Visits'), finish the sheet by selecting the code for the stage "E: At egg Stage", "J: At young stage" or "X: At egg or young stage" combined with either "P: Predation" or "U: Usurped from nest by other bird species" (ie: your code combination may be "JP"). Then start a new sheet for second species (ie: House Sparrow).

Q: I have other questions about the online monitoring system. Where can I go for answers related to the data entry?

A: Bird Studies Canada (BSC) has help related to their data entry.

Go to: <http://www.birdscanada.org/volunteer/pnw/> and click on "Instructions" or click the 'Help' tab while in the data entry pages.

Also see BSC's Frequently Asked Questions accessed from the same link.

Nest Box Installation

TOOLS REQUIRED:

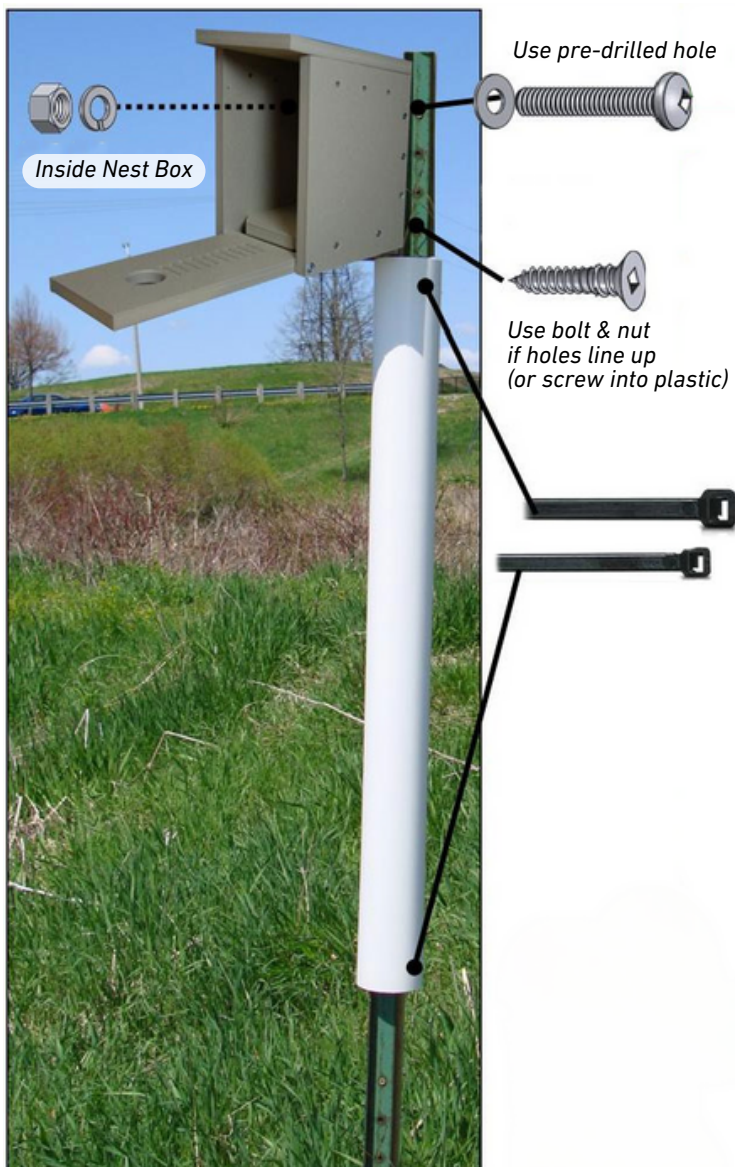
- Cordless Drill and 7/32" Drill Bit
- #2 Robertson Screwdriver (red handle)
- Flat Screwdriver - to open nest box doors
- Adjustable Wrench - to tighten nuts & bolts
- 2" diameter Drivall Post Driver
(may need assistance to locate this item)

NOTE: Contact your local Municipality who may supply steel posts.

MATERIALS REQUIRED:

- 4" diameter 3' long smooth Plastic Tube (PVC pipe)
 - keeps predators from invading nest boxes
- Bird Nest Box with pre-drilled holes
- One Robertson#8 1- 1/4" Wood Screw
- Two Robertson#10-32 11/4" Machine Screws(bolt),
- Two Flat Washers, Two Lock Washers, and Two Nus
- Two UV Black Multi Purposo Ties 7.5" 1191mm
- 8' long metal Fence Post or U-Post with pre-existing holes

IMPORTANT: Locate all underground services before driving the post into the ground.



1 **Pound the post** vertically into the ground with the Orivall ensuring that the end of the Post with the most holes is at the top. Go at least 2 feet deep and have 5 feet of the post exposed.

2 **Drill two holes** into the plastic tube-1" from the top and 1 from the bottom. Drop the plastic 1 tube over top of the Post and let it rest on ground for the time being

3 **Using a bolt and washer**, attach the nest box to the Post by matching the upper pre-drilled hole found on the back nest box panel with the top hole on the Post. Secure the box by tightening the bolt with a washer and nut from the inside of the box.

If the lower pre-drilled hole on the back panel matches up with a hole on the Post, use the second bolt, washers and nut and attach as above. If the holes do not match up, screw the wood screw through a hole in the Post directly into the nest box.

BE SURE THAT THE NEST BOX IS SECURED FIRMLY TO THE POST

4 **Raise the plastic tube** to fit snugly below the nest box. Thread the black multi-purpose ties through the pre-drilled holes in the tube and the nearest holes in the post. **Secure firmly.**



Bird Nesting Box Assembly Instructions

Back



Bottom



Left Side



Right Side



Top



Front (Door)



Bag of Screws



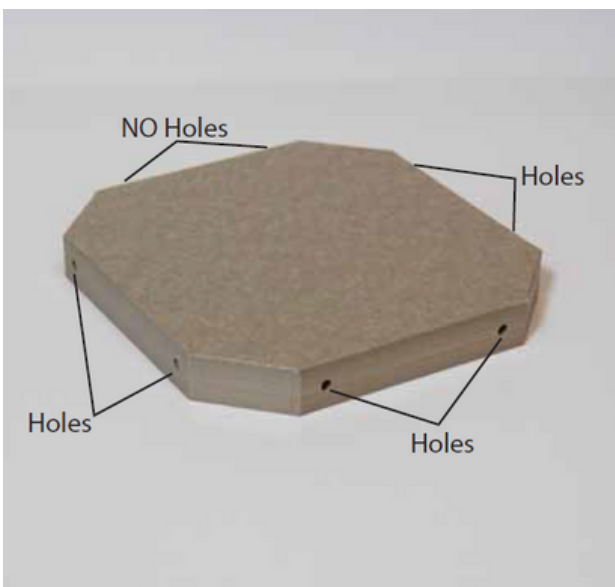
Bag contains:

- 17 Robertson Screws
- 2 Large Robertson Bolts

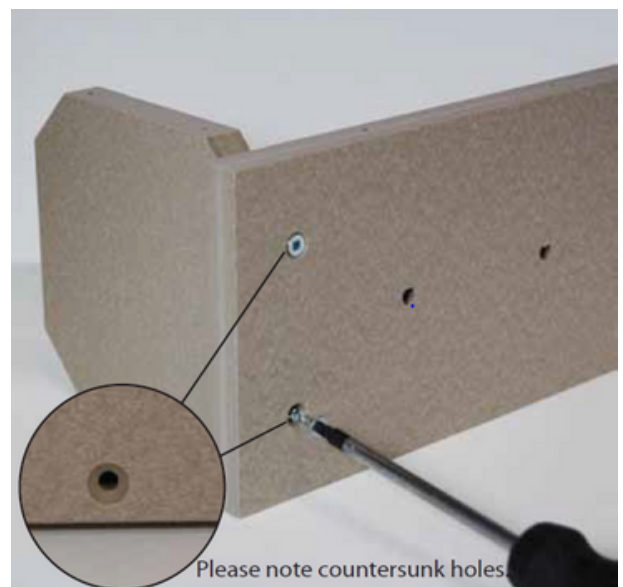
Tools Required:

#2 Robertson Screwdriver
(not supplied)

Step 1: Place the Bottom panel on a flat surface. Please note that there are holes drilled on 3 of the 4 edges of the Bottom panel. The side with no holes will be at the front of the bird house.

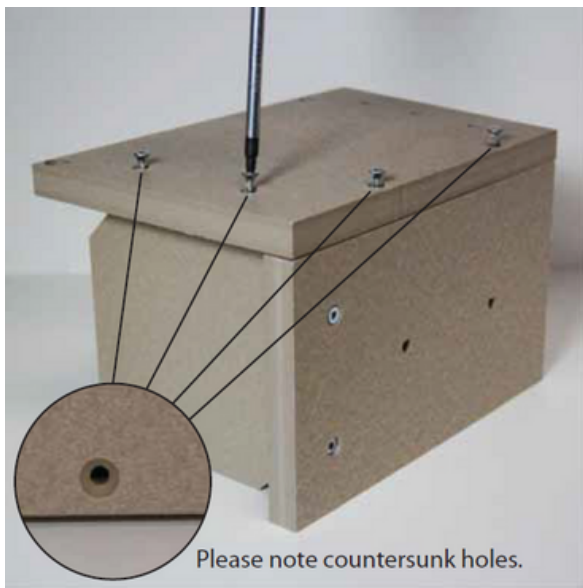


Step 2: Line the Back panel up with the Bottom panel so that it sits opposite the side with no holes drilled. Use the Robertson screwdriver to insert 2 Robertson Screws through the Back panel into the Bottom panel.



Bird Nesting Box Assembly Instructions

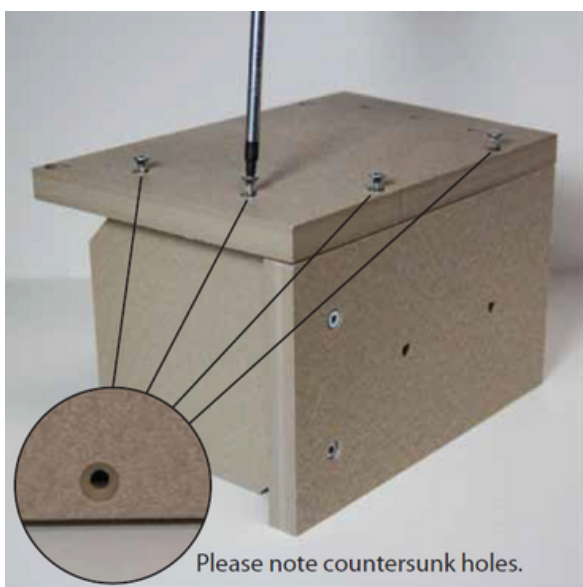
Step 3: Turn the bird house on its side (refer to photo) and lay the Right Side panel on top of the bird house. Line up the 4 countersunk screw holes with the holes on the Back and Bottom panels of the bird house. Use the Robertson Screwdriver to insert 4 Robertson Screws through the Right Side panel in to the Back and Bottom panels.



Step 4: The bird house should now look like this.



Step 5: Turn the bird house over so that the Right Side panel is now resting on the table. Repeat the process in step 3 for the Left Side panel.



Step 6: The bird house should now look like this.

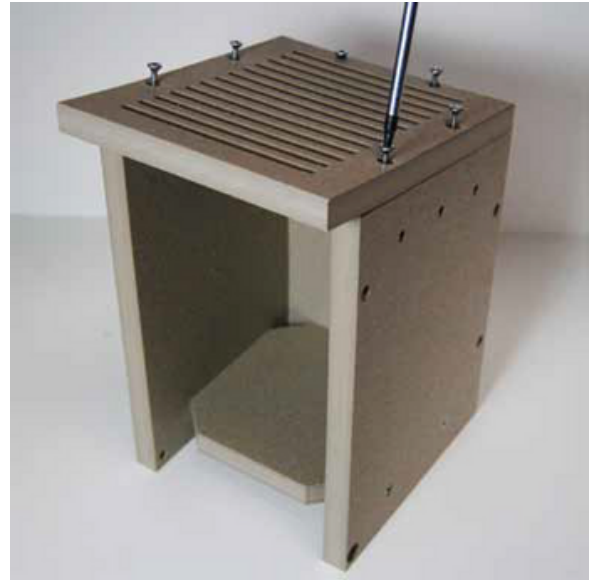


Bird Nesting Box Assembly Instructions

Step 7: Turn the bird house back over so that the Bottom panel is resting on the table.



Step 8: Place the Top panel onto the top of the bird house. Be sure to have the grooves facing up. Insert 6 Robertson Screws through the top panel into the Left, Right and Back panels.



Step 9: Make sure all screws are tightened and that your bird house looks the same as the picture below.



Step 10: Find your Front (Door) panel with the hole and "ladder" pattern. The side with the short "ladder" will be on the outside of the birdhouse and the side with the long "ladder" will be on the inside of the birdhouse.



Bird Nesting Box Assembly Instructions

Step 11: Place the Front(Door) panel into the front of the birdhouse so that the large holes on the side of the Front panel line up with the large holes in the Left and Right Side panels. Insert the Large Robertson Bolts through the large holes in the Left and Right Side panels into the Front panel.



Step 12: Open the door to your bird house to be sure that everything is working properly.



Step 13: Using a permanent marker, write a number on one side of your box. Write the same number on the inside of the door. If the number on the outside fades, you will still know which box you are monitoring. Numbering your boxes ensures that your records remain consistent throughout the monitoring season. Be sure to put a different number on each box.

Step 14: The hole at the top of the Left Side panel of the bird house is used to “lock” the birdhouse to keep raccoons and other predators out. Remember to bring your Robertson Screwdriver out with you when you go to monitor the bird houses or you won’t be able to get in!

