



NEST BOX MAINTENANCE

Nest box installation and maintenance has been a popular BMN activity for the past 25 years. Many of our members look forward to participating in the annual nest box cleaning sessions. The club has over 300 nest boxes located across Colony Farm, Minnehada Park, and Widgeon Slough. The main bird species we provide nest boxes for include Chickadee, Barn Swallow, Tree Swallow, Violet-green Swallow, Purple Martin, Wood Duck, and Merganser. More recently, BMN has installed some experimental boxes for Northern Flicker. In addition to bird nest boxes, we also have a few Flying Squirrel boxes. Each of the boxes are built to meet the specific requirements of the birds and wildlife.



In order for the animals to be attracted to and use the boxes, it is important that the boxes be maintained regularly and correctly in order to best meet the needs of the wildlife. For example, overfilling a box with bedding materials can discourage a bird from using the box, or could suffocate the nestlings. What may look cozy to you may not to a bird.

This document includes precautions and solutions when performing nest box maintenance.



Tree Swallow boxes at Widgeon Marsh



Tree Swallow nest box

WHY CLEAN A NEST BOX

Birds will not typically clean out old nests by themselves. They may build a nest on top of another previously used nest, but this may promote disease and parasite infestation, and increase the likelihood that a predator will be able to reach in and nab eggs/nestlings that are closer to the entrance hole. Cleaning out a nest box after each use enables monitors to know whether a box is used again and by what species.



Chickadee nest box

WHEN TO CLEAN A NEST BOX

Nest boxes can be cleaned as soon as the baby birds fledge, at the end of the nesting season, or well before the start of the next nesting season. BMN cleans next boxes between February and March each year.

HOW TO CLEAN A NEST BOX

- Have everything ready so you can work quickly (but carefully).
- Stand upwind to avoid inhaling dust and detritus.
- Remove any empty nest (it's a good idea to wear gloves) and put it into a plastic bag. Close the bag in case there are any insects/mites or larvae in the nest.
- Scrape (a hive tool, putty knife or paint scraper is useful) and brush out (with a stiff brush like those used to clean a grill) the interior.
- Wash your hands with soap and water or use hand sanitizer immediately afterwards (before eating, drinking, or touching your face or steering wheel.)

Information and images in this document were provided by a long-term BMN member and bird enthusiast, Kiyoshi Takahashi.

BEDDING MATERIALS

Avoid overloading the box with bedding materials as birds will top up their nests with their own preferred materials such as dry-grasses, moss and duck feathers to finish the nest. Overloading will cause the nest to lose firmness, and thus some birds, such as swallows, may sometimes abandon the nest. More importantly, overloading will risk raising the level of the nest closer to the entrance hole causing it to be more prone to predation. The recommended height of bedding materials is:



Too much bedding

- less than 1" for swallows and ducks
- nothing or only few strands of heavy grass stems for Purple Martins
- nothing for chickadees.

HANGING HOLE

The hanging hole on the back of older box models often causes rainwater to leak into the box. The location of the hole may also make it difficult to attach a box on a pole (box on far left of photo).

A back plate (on box on the right of photo) should be attached over the back of the box. This will seal the hole and the opening on the back of the box to avoid rain water seeping in.



Installation of a back plate

ENTRANCE HOLE

If the entrance hole appears to have been widened, possibly by a woodpecker or squirrel, either let the animal continue to use the box, or repair the hole. An enlarged hole may invite other invasive species such as the European Starling, or predators such as a weasel.

To repair the hole, attach an entrance piece to make the hole the proper size for the specific bird species. Refer to the table below for recommended hole sizes and height.



Repairing the hole size



Nest box dimensions for cavity nesting birds

Bird	Floor area	Entrance hole size	Height to hole
Chickadee	4" x 4"	1 1/8"	7"
Titmouse	4" x 4"	1 1/4"	7"
Nuthatch	4" x 4"	1 3/8"	7"
House wren	4" x 4"	1 1/8"	7"
Bluebird	4" x 4"	1 1/2"	8"
Tree swallow	5" x 5"	1 1/2"	5"
Downy woodpecker	4" x 4"	1 3/8"	7"
Hairy and red-headed woodpeckers	6" x 6"	2"	10"
Northern flicker	7" x 7"	2 1/2"	15"

Data from Audubon's "North American Birdfeeder Handbook"

INFESTATION

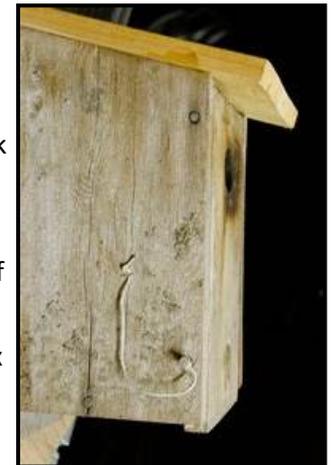


Wasp infestation

Paper wasps or bees may build a small beehive in the box. This will cause birds to either not build a nest in the box or abandon an existing nest. Sometimes wasps will build a hive later in the season after the birds have fledged the nest. The hive causes no harm to the birds but should be removed.

DOOR LOCK

Check to make sure the door of a box is locked. If the door is not secured or the lock is broken, repair it with either a stringed nail or insert a piece of wood or any object to secure it until nest box cleaning session the following season.



Stringed nail door lock



Some of the photos included in this document are of used older model boxes. Details on the latest bird box plans are available on the BMN web site.