Winterizing Bluebird Nest Boxes

By Harry Power III, Ph.D

At the end of each bluebird nesting season, boxes should be prepared for the next year. The two most important things to do are to:

1. Secure the box lids.
2. Remove the blowfly larvae.

1. Securing the lid is necessary to prevent the wicked winter winds from blowing the lid away, ruining the box as a nesting place for bluebirds returning in the spring. Boxes should be constructed to allow the lids to be tightly secured. Sometimes it helps to nail the lid shut for the winter; this also deters passersby who only want to see what is in a box, and then leave the lid partly open when they depart.

To nail a lid shut without damaging the box, it may be useful to carry a small hand drill when you close your boxes for the season, and make a small hole into which you can pound a nail of slightly larger diameter securing the lid to the rest of the box.

2. Blowfly larvae are bloodsucking ectoparasites (meaning they live on the outside of their hosts) that can slow the development of bluebird nestlings and sometimes cause their deaths. In the cold climate where most Mountain Bluebirds flourish, blowflies are important sources of stunted development and mortality in only some years. Unlike warmer climates where they may have lethal effects on a regular basis. But since it is impossible to predict the effects of blowfly damage for any future
season, it is important to minimize the chance that they will be present in the next season by eradicating them when you winterize your boxes.

Most bluebirders believe that this means that all nest material should be removed from the nest boxes at the end of each season to prevent any blowfly larvae from overwintering in that material as pupae.

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Unfortunately, there is a cost to removing all material. Late laying reduces the number of eggs birds lay, and decreases the chances that they will lay a second clutch later in the season. The reason for late laying in empty boxes is that birds use the presence of old nest material as an indicator that the nest cavity has been successfully used in the past, and therefore likely to be a safe place in which to nest now. Moreover, some of the old material is used in construction of new nests.

I have found that blowflies can be controlled without delaying the start of laying by removing only the parasite-affected portion of nests when I winterize boxes. This portion is found in the very bottom of the nest and is made up of fine, dusty, decayed material containing pupating larvae, very different in texture from the intact grasses making up the rest of the nest.
You can remove this “infected” portion of the nest by using a knife or screwdriver to pry the entire nest out of the box, and separating out the infected part with your hand (it easily comes loose and does not pose a health threat to humans, but you should always wash your hands thoroughly after handling birds or nests as a basic precaution). You should then return the remaining, parasite-free portion of the nest to act as an attractant for bluebirds returning in the spring.

About the Author:

Harry Powers in an Ornithologist. He grew up in Great Falls, MT and has been studying Mountain Bluebirds in the Little Belt Mountains south of Great Falls since he was in high school.