



We have been experimenting with this project over the past 5 years. It has been during the 4th and 5th year that we have actually had LEWO's use our nest boxes. The area of our project is approx. 1/2 mile x 1 mile in size.

We have gone to building our boxes out of Brekinridge siding. With all of the construction around here, we have taken advantage of pieces of wood that end up in the scrape piles. After the houses are built we do paint the outside with non-caustic gray paint. Tends to help protect the wood for longer periods of time. Before this, we did use 1 inch Cedar.

Measurements for the nest boxes.

back of box

width = 7 1/4 inch

length = 22 1/4 inch

front of box

width = 7 1/4

length = 20 inches

entrance site is 2 inches from top of front panel in center of panel, and measures, 2 inches in diameter.

side of box x 2

(the sides are angled with the tallest measurement at the back of the box)

back of side = 23 inches

front of side = 21 1/4 inches

three Large holes are drilled in the top on both of the sides of the boxes to allow for ventilation in the nest boxes. These measure 1/2 inch in diameter each.

Floor of box

width = 7 1/4 inches

length = 6 inches

(floor of box is not flush with the bottom of the box, but sits up about 1 inch)

roof of box

width = 12 inches

length = 9 1/2 inches.

We first began by putting up nest boxes on Snags, but found these were falling over quickly and ended up losing nest boxes! **We then went to putting the nest boxes on live trees only.**

Height of nest boxes on trees.

We first began by putting up nest boxes at heights of 7, 11, 15 feet. We wanted to see if this played a variable in selection. It did not! All have been used. We no longer place the boxes at a height of 15 feet. Too risky for volunteers to check on these boxes. Most are now placed at 11-12 feet.

All Nest boxes face North East.

The entrance holes at the beginning of this project varied as well. We used 2 inch, 2.5 inch and 3 inch sized holes. None of this mattered either in selection by the LEWO's, so we went to all 2 inch entrance holes. Hopefully it also serves to keep out some would be predators.

Bark on boxes.

About the third year into this project we decided to add bark to the outside front of the nest boxes. I have a flicker box at home that was built by a friend and decided maybe this is what we needed to attract the LEWO's to use the nest boxes. Well...the next year we did indeed have LEWO's using the nest boxes. During the 4th year of our project, 8 out of 16 nest boxes were used and by LEWO's and 7 of those raised young. Did the bark make a difference??? It is hard to say, but I did witness some interesting and important activity by the LEWO's that led us to place bark on all the additional nest boxes we added this past year.

Last year and this year I watched the LEWO's use the bark as a tool to store food, and for use in feeding the nestlings! I wish I had a video camera and could have caught this on tape! It is amazing to watch, but obvious when you think about how LEWO's use the bark of trees to cache food, and to break up bugs and keep them in a place while feeding bits of pieces of food to the nestlings! It also has allowed the LEWO to "sit" on front of the nest box without hanging onto the entrance hole only. It provides an advantage point to hold onto the bark to look around for predators or others before entering into the nest box.

Mixed wood shavings in nest boxes.

Lewo's are not primary excavators, but often do like to change the appearance of the inside of the cavity a bit, so we have always placed approx. 4 inches of mixed wood dry shavings in the nest boxes. I believe it also serves to keep the eggs/young protected a bit from the cooler spring nights. I have seen LEWO's take out bits of the shavings after box selection has occurred.

Nesting dates.

Typically, the LEWO's arrive here in Bend, the first week in May. This year, 2007, the birds were already at nest boxes and had selected them by April the 27th. Usually, it takes a few days for this to happen, so the birds probably arrived earlier during that last week in April. Only about 1/4 of the birds had arrived by this date.

5/9/07

36 individual birds seen. This week seemed to be mating week. Several birds were seen mating while I spent about two hours on site. All were mating on top of the nest boxes. :>)

5/17/07

16 nest boxes in use by LEWO's

5/31/07

18 nest boxes in use. One nearby Kestrel box in subdivision in use as well!

nestlings heard inside nest boxes.

6/19/07 14 nest boxes with nestlings. 2 other adults had mated later, and nestlings were not heard in two of the boxes at this early date.

July 2nd, first nestling fledges.

July 11th, many fledglings outside of boxes, learning to flycatch from parents, or being fed. Fun to watch! One nest box was still feeding young. The other later box had fledged. I watched a family of 6, 2 adults and 4 young check out a recently fledged Am. Kestrel that had hatched from a snag nearby. Everyone was so curious, especially, the young LEWO's. The birds would fly about the Kestrel in haphazard movements, and sit close, just watching this young bird while it called. The Parent LEWO's sat close by, keeping an ever watchful eye. The Parents of this young family actually chose a nest box that had first been chosen by the Parent Kestrels of this young bird. The LEWO's won the nest box, despite being activity challenged for ownership by the Kestrels! The Kestrel ended up nesting in the snag located about 50 feet away...a site were LEWO's nestes last year.

July 13th.

More young fledglings foraging on their own. Again fun to watch! Sitting on the tops of pine trees with bugs flying all about them. Often it would take several flies through the air to catch a bug, but they were being successful. Some of the families have already left the area, but I did still see several families hanging around the areas of their nest boxes.

Oddly, I also saw territory behavior on nest boxes that hadn't been used during the breeding season. Several adults would sit on the tops of nest boxes and begin drumming and calling out!! HMMM. Not certain what this is all about yet!

This small patch of forest has proven to be successful for us. Partly I believe there were so many LEWO's present in the area before the snags began falling down, and we already had nest boxes in place when they returned during the spring for mating and the snags were no longer available to them in the numbers in prior years. We have two other areas where nest boxes are located, but have not been successful in these locations. I believe we put up nest boxes too late in one of the areas, and the snags were already mostly gone. Birds had begun to diminish in numbers at this location prior to our putting up nest boxes. The third location has thousands of snags still standing, yet the numbers of birds located here has dropped dramatically. I saw at the most 6 individual birds at this site. About 4 years ago another fire occurred close by and I believe the birds have moved more into this newly burned area. Maybe the snags are larger in size??? Not certain. I haven't had time to get out there to check out the area.

We typically close up the nest boxes with tape early in the spring to prevent other birds who are earlier nesters from using the nest boxes. We are not able to drive into the project area till April 1st, as it is winter deer habitat, but on April 1st, I drive in, clean out the boxes, put in new shavings for the spring time and seal up the boxes with tape. During the last week in April, I return and take off the tape. This year, luckily the tape didn't stick as several of the nest boxes already had LEWO's going in and out of them!

Our plans for next year in 2008, are to put up a few more boxes in the successful project area, and to possibly add more nest boxes in the areas where we have not seen successful use of them, along with continued monitoring of the boxes we already have in place.
