

## **Tree Swallow Internship Summary – Road Grid**

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The Beaverhill Bird Observatory has tracked the nesting success rate of Tree Swallows in several grids of man-made nest boxes since 1984. The road grid is comprised of 66 nest boxes arranged on fence posts at regular intervals along Township Road 510 (Rowan's Route). Nest boxes were checked weekly from May 12 to July 23, 2020; during each visit I recorded the construction stage of the nest, how many eggs or nestlings were present, and the presence of any adult birds in the area. For nests with eggs and nestlings, the temperature of the eggs and age of the nestlings was also recorded. Nest boxes containing bird species other than Tree Swallows were monitored according to the same protocol.

Out of the 66 nest boxes in the road grid, 43 were occupied by Tree Swallows at some point during the season; making the occupancy rate of boxes by Tree Swallows 65%. Tree Swallows in the road grid had an average clutch size of 5.57 eggs per nest; the average number of offspring for these nests was 5.46. 81% of the nests with chicks were successful with the young fledging. One nest box in the road grid was occupied by a pair of Mountain Bluebirds which had a clutch size of 6 eggs, with 5 offspring that successfully hatched and fledged.

The presence of mice appeared to have a very significant effect on the nesting success of Tree Swallows in the road grid. Boxes number 1-14x had a significant number of mouse nests in them when the boxes were cleaned out at the start of the season, but after the swallows had arrived. These boxes had a much lower success rate and occupancy rate than the rest of the road grid as a result. In boxes 1-14x, there was only a 50% occupancy rate, and only 57% of these nests were successful. The average clutch size and number of offspring was lower for these boxes as well, with the nests having an average clutch size of 5 eggs and 4.75 offspring. The Tree Swallows occupying these nest boxes tended to do so later in the season, with boxes 1-14x being occupied roughly a week later than the other nest boxes in the grid. The later nesting could be due to the lateness of box cleaning to remove all the mouse nests. It is possible this habitat is more marginal for Tree Swallows to begin with, the ditches along these boxes had less water and would likely not be as rich in insects for the birds to feed on either. As well, mice could have been potentially preying on the eggs and young of the Tree Swallows nesting in these boxes, since their presence was noted at the start, and throughout the breeding season.