

## Tree Swallow Internship Summary – All Grids

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Clutch sizes in the BBO Tree Swallow grids are large, with each grid averaging more than 5 eggs per clutch (Table 1). In the Spiral and Road grids, which were by far the most productive by success rate and young fledged, each nest produced an average of 4 young, with a nest success rate of approximately 80% (Table 1). In all three grids, the average hatch date was in the middle of June, although the Spiral grid saw hatch dates several days later than the others.

In the Spiral and Road grids, chicks that hatched had a more than 90% chance of successfully fledging, suggesting good feeding conditions. However, the Road grid saw nest box utilization rates far below that of the other grids, despite having the highest success rate and fledge count of all three grids. It is possible that the road represents a source of disturbance significant enough to dissuade nesting, but not enough to impact overall nesting success. It should also be noted that the Spiral grid had 7 of its 92 nest boxes used by House Wrens, only 2 broods of which were successful, fledging a total of 8 young. One nest box in the Road grid was also used by Mountain Bluebirds, which were successful and fledged 5 young. This utilization is discounted in the table below.

The New (Weir) grid, despite having the highest average egg count, also had the lowest success rate. The chief cause of nest failure in both the New and Road grids are unknown, but failure was assumed by the lack of fecal sacks in the nest. Conversely, the main cause of nest failure in the Spiral grid was predation, although several of its nests were also presumed failed from the lack of fecal sacks.

Overall, the Tree Swallow grids remains productive. Future effort can be recommended to understand the causes of low nest success in the New/Weir grid and the low rate of nest box utilization in the Road grid.

**Table 1. Summary of nesting data for Tree Swallows in Spiral, Road and New Grids in 2020**

	<b>Spiral</b>	<b>Road</b>	<b>New</b>
<b>Average Egg Count Per Brood</b>	5.93	5.6	6.21
<b>Average Hatch %</b>	77.2	79.9	79.9
<b>Average Fledge Count Per Brood</b>	4.0	4.45	2.94
<b>Average Fledge % Of Those Hatched</b>	92.9	99.5	69
<b>Average Hatch Date</b>	Jun-14	Jun-10	Jun-11
<b>Utilization Rate</b>	96.7	64.6	96.1
<b>Success Rate</b>	79.8	80	59.2
<b>Total TRES Fledged</b>	357	187	147