

POINT/COUNTERPOINT

Paired Nest Boxes vs. Widely Spaced Single Nest Box Experiment

By Mary Roen

I live in Western Wisconsin, close to the border with Minnesota. I belong to the Bluebird Restoration Association of Wisconsin (BRAW), the Bluebird Recovery Program of Minnesota (BBRP) and the North American Bluebird Society (NABS). It is interesting that BRAW and BBRP differ quite markedly in their recommendations for setting up bluebird nest boxes. BBRP advocates pairing of nest boxes 15 feet apart or less, with at least 500 feet between pairs, to reduce the competition between bluebirds and Tree Swallows. The idea is that bluebirds can use one box of the pair, and the Tree Swallows (or Chickadees, House Wrens or other species) can use the other box of the pair. In this way, one box of each site should be available for bluebirds. (There is a chance that both nest boxes of a pair could be used by species other than bluebirds, but in my experience this has rarely happened.)

BRAW advocates widely spaced single nest boxes, each being at least 100 or more yards apart, stating that this increases bluebird nesting and fledging success. Since this did not seem to be the case on my trail, I decided 2 years ago, to try an experiment to find out.

I had nest boxes at my parent's crop farm that were separate from the rest of my trail, to use for the experiment. All but one are Gilwood nest boxes, to minimize variables. In 2007, I had 2 single nest boxes and 2 pairs of nest boxes there, for a total of 4 possible sites for bluebirds, as it is not expected that bluebirds will nest in both boxes of a pair since they defend a territory. As you can see in the chart, 27 blue-

birds and 11 Tree Swallows fledged from these nest boxes. In 2008, I separated all but one pair of nest boxes, along suitable habitat, so there was one pair of nest boxes, and 7 widely spaced single nest boxes for a total of 8 possible sites for bluebirds. From this arrangement, 23 bluebirds and 27 Tree Swallows fledged. The statistics are also displayed in the chart. In 2009 I re-paired all the nest boxes so I had 5 pairs of nest boxes, for 5 available sites for bluebirds. From these 5 sites, this year, 32 bluebirds and 11 Tree Swallows fledged. This is a significant improvement over last year.

I will continue to monitor this over the next few years, but for me, on my trail, pairing of nest boxes has increased the number of bluebirds fledged. On the 32 paired sites of my whole trail this year, 187 bluebirds have fledged, which is 5.84 bluebirds per site. 80 Tree Swallows have fledged, for 2.5 Tree Swallows per site. To continue to attempt to increase the number of bluebirds fledged per site, I will be moving three pairs of boxes that were non-productive this year to better locations for next year.

Everyone may not get the same results as I have obtained from my experiment, but it showed that pairing of nest boxes did increase bluebird success on my trail in Western Wisconsin.

BRAW's Response:

Regarding Mary Roen's article: Paired Nest Boxes vs. Widely Spaced, Single Nest Boxes. I received 361 nest box reports from Wisconsin bluebird monitors this season and Mary Roen is the only person that still admits to pairing boxes in WI. Mary has been influenced by the Bluebird Recovery Program of Minnesota in which pairing is the current ideology (that is, not based on science).

Mary's data in her article suffers from two major problems: 1) small sample

size and 2) lack of data from several years of data collection. The currently recommended principle of spacing by BRAW, on the other hand, comes from data collection and analysis from tens of thousands of boxes collected over a ten year period (mainly from the efforts of Joe O'Halloran who preceded me, in my current position). Until Mary addresses these problems, her conclusions will be tentative, at best.

Currently, BRAW leads the nation in bluebird production (3 consecutive years if we end up leading in 2009). A major reason is our increased production per box compared to Nebraska (2nd place) and Minnesota (3rd place). In the last published data from Minnesota that I saw, they produced slightly over 16,000 bluebirds compared to 28,814 in Wisconsin in '09. But of special importance was the fact that they produced only 1/2 the number of bluebirds/box that we did. This means that it cost them twice the amount of time and money that it takes the average monitor in WI to produce the same number of bluebirds.

Finally, it should be noted that Mary's data do not compare favorably with data collected by other monitors in St. Croix Co. There were four other monitor reports besides Mary's from this county. There were 61 boxes reported with 214 fledglings = 3.51/box = 20.2% above Mary's production level of 2.92/box. In fact, two of these trails produced 5.3 and 4.45 bluebirds/box, well above that of Mary's production.

I commend Mary for making the effort to compare singly spaced boxes vs. paired boxes. But until she compares equal numbers of nest boxes (paired vs. singles—50 sites@) for at least a three year period, I can not accept her data analysis as meaningful.

Kent D. Hall, Data Collection Coordinator, BRAW

Year	Pairs of Boxes	Single Boxes	Sites for Eastern Bluebirds	Number of Eastern Bluebirds fledged	Number of Tree Swallows fledged	Eastern Bluebirds fledged per site	Tree Swallows fledged per site
2007	2	2	4	27	11	6.75	2.75
2008	1	7	4	23	27	2.87	3.37
2009	5	0	5	32	11	6.4	2.2