

# We Did It: More than 30,000 bluebirds were fledged in the 2010 season, one year early!: Annual Report I

By Kent D. Hall, Ph.D.: Coordinator of Data Collection & Analysis

This year, for the first time, I have taken over the complete job of data collection and analysis and writing of the Annual Report (I & II this year). I would like to thank Dr. Peter Dunn, Associate Professor of Biology at UW-Milwaukee, for his many years helping BRAW with data analysis and co-writing the Annual Report. Much of the format I will use for data analysis was developed by Dr. Dunn. The BRAW Directors appreciate his guidance and direction over those many years and wish him well.

In 2006 I took over data collection for BRAW as a result of the passing of Joe O'Halloran. I felt Joe had laid a great foundation for BRAW as he had collected evidence documenting the importance of spacing, use of predator guards and small, shallow nest boxes. But, by that time, I had completed 5 years as Coordinator of the Audubon Bluebird Trail (1,267 boxes/5663 bluebirds fledged for the 2010 season) and felt that I could bring the perspective of better management practices learned from a large trail and

the insights from working with a large group of monitors (74 this season).

I used a multipronged approach. I first went to the BRAW Directors and challenged them to set a goal of: 1) becoming the top bluebird producing state (now three years in a row with the 4th almost certain to come) and 2) fledging 30,000 bluebirds by the 2011 season (accomplished that goal one year early this season). The BRAW Directors enthusiastically endorsed these goals, without which they would never have happened.

I called this program: **Operation Top State (OTS)**. It needed several elements to succeed: 1) Education of bluebird monitors (on-going): I worked on this goal by: a) writing a "how to" manual we call the Informational Packet (illustrated by Patrick Ready; now in the 3rd Edition) b) publishing articles in the Wisconsin Bluebird (on-going) and b) visiting monitors throughout Wisconsin to help them install trails (30,000+ miles traveled, 2,500+ nest boxes installed or sited and 100+ trails developed (ends in Spring, 2011). 2) We had to figure out a way to construct inexpensive

nest boxes with mounting posts that could be used by monitors in the field. This was calculated to be one of the quickest ways to increase production. Of course, there had to be a way to both finance and build them. I found inexpensive wood and mounting posts here in Stevens Point, was able to find an excellent place to make them (Wood Laboratory at UW-Stevens Point), developed a work crew to build them (led by Bob Lane, chief carpenter) and raised the money for purchase of supplies (\$10,000+ raised, including money from 5 Garden Expo booths).

**And it worked!!** But now you need to know the other side of the story. And that means you and you and you. Without the cooperation of literally hundreds of people (Figure 1), our goals would never have materialized. It has been my sincere pleasure to have worked with so many dedicated people during these last four years—certainly one of the highlights of my life. And everything centered around a single magnificent animal, *Sialia sialis*, and its cavity nesting competitors, the Tree Swallow, chickadee and wren. Thanks to everyone for your hard efforts during this 4-year stretch. But, as you will see below, I think the best is yet to come. We are now positioned to produce even more bluebirds in the future. I will stop going into the field to install trails as of Spring, 2011, but we still have several hundred boxes & mounting posts available for distribution to interested persons. And I will continue my work with the Audubon Bluebird Trail and BRAW in my capacities as V-P and Coordinator of Data Collection & Analysis.

So what have we accomplished? Figure 2 & Table 1 show that this season we set **new records** for Eastern Bluebirds (EABL's) fledged (30,716), Tree Swallow's (TRES's) fledged (12,267) and total boxes monitored (9,632). The differential between EABL's and TRES's fledged was the highest ever: 18,449 more EABL's than TRES's.

Our improved management



Figure 1. Nest box trail developed by Kent Hall at Mee-Kwon Golf Course, Ozaukee County. This trail is currently monitored by Ellen Lafouge, right foreground.

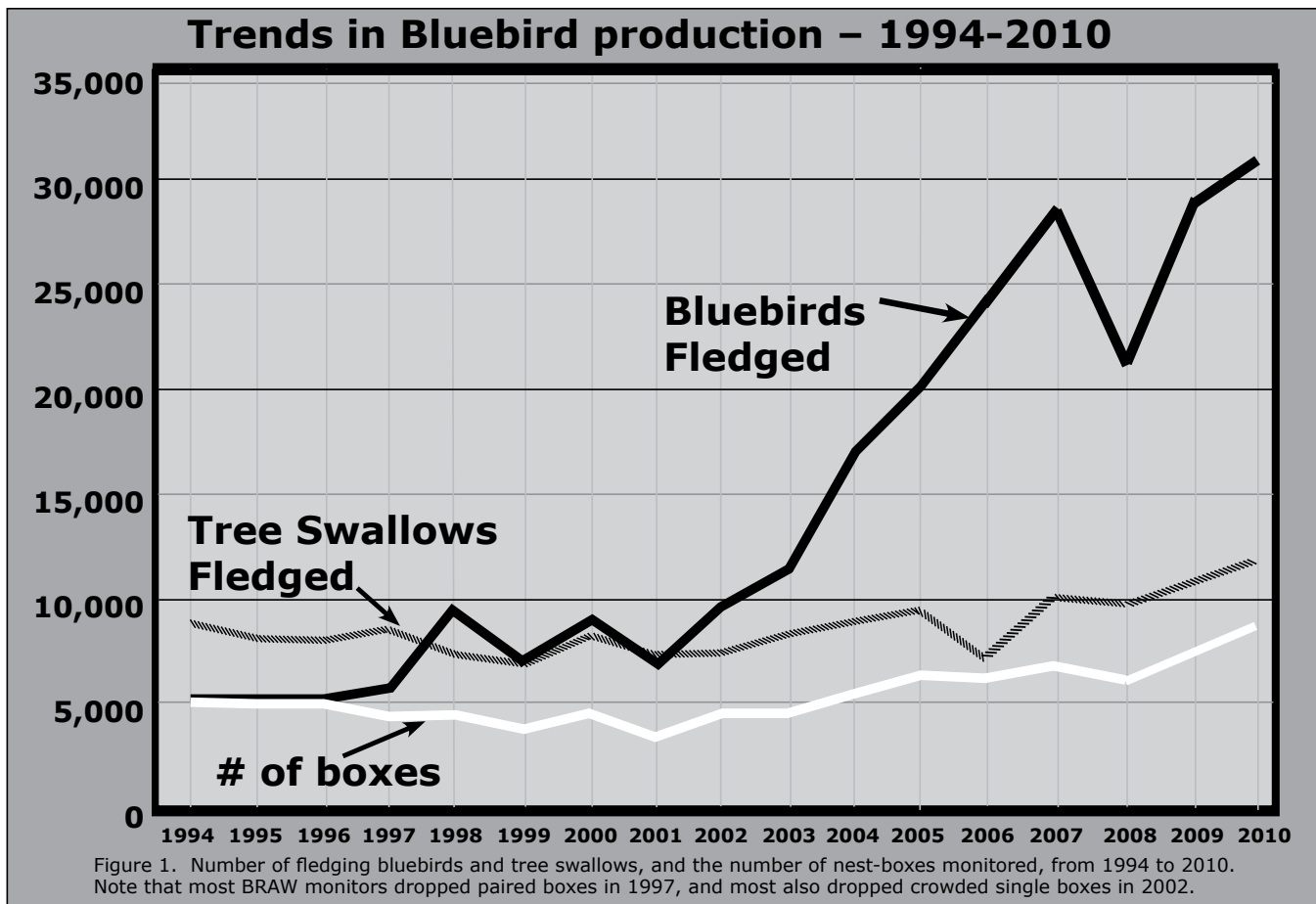


Figure 2. Trends in Bluebird Production for BRAW (1994-2010)

successes are shown from several statistics in Table 1. Since I assumed responsibilities for data collection in 2006, we have increased EABL's fledged/season by 9,669 (49%) and our EABL occupancy (boxes with at least one bluebird egg) by 16.2%. I believe the latter figure is mainly due to the most important aspect of EABL production, **nest box location**. During the OTS Initiative, we have worked very hard to select good habitat sites and have encouraged monitors to

move their boxes by May 1 in the 2nd season, if the box has not attracted EABL's (and assuming no other songbirds are nesting in them).

What makes EABL occupancy so impressive this season is that we have 2.2% more occupancy than last season in spite of: 1) an increase of 933 boxes (most of these boxes were "first year" boxes that typically attract fewer EABL's and more TRES's) and 2) a drop in production/box by 3.3% (3.3 to 3.19; since occupancy rate

increased, this drop is most likely due to the **inclement weather** experienced throughout WI this season, especially in Western WI). Since 2006, TRES's have increased by 5,693 (86.6%), but their production/box has stayed remarkably steady at 1.3/box for the past four seasons. For the first three seasons after I took over data collection responsibilities, our ratio of EABL's: TRES's produced, tilted in favor of TRES's. We reversed it in 2009

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Table 1. Comparison of Eastern Bluebird & Tree Swallow fledging success, BRAW reports & BRAW monitors in 2006-2010. Fledglings per box is based on the total number of monitored boxes. Box occupancy is the number of boxes with at least one egg /total boxes monitored x 100.

Year	Bluebirds fledged	Bluebirds Fledged per box	Swallows fledged	Swallows fledged per box	Ratio of Bluebirds to swallows	Total Boxes Monitored	% Bluebird Box occupancy (+1 Eggs laid)	Total BRAW Reports	Total BRAW Monitors
2010	30,716	3.2	12,267	1.3	2.50: 1	9,632	60.2	466	748
2009	28,814	3.3	11,054	1.3	2.61: 1	8,699	58	405	640
2008	21,379	2.9	9,864	1.3	2.17: 1	7,387	56	323	499
2007	28,244	3.6	10,051	1.3	2.81: 1	7,861	50	267	409
2006	21,047	3.5	6,574	1.1	3.20: 1	6,021	44	195	245

## 30,716 Bluebirds fledged!!!!

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(2.61:1) and it held relatively steady in 2010 (2.50:1). As the number of new boxes put up on trails declines and we improve our locations, I anticipate improvement in this ratio. And what about the success of **OTS**? In addition to the total bluebirds fledged and the nest box occupancy previously mentioned, there are the total increase in BRAW reports: +61 this season (+15%) and +271 over the past 4 years (+239%) and BRAW monitors: +108 this season (+17%) and +503 over the past 4 years (+305%). And these numbers of monitors do not even include the hundreds of school children that monitor nest box trails on their school grounds and turn their data into BRAW.

### Future Production:

As exciting as it is to pass our 30,000 fledged goal, there are even better prospects ahead. These things are evident: 1) bad weather at peak nesting is not going to occur every year as it did this year (caused a loss of at least a thousand fledglings); 2) if the nest boxes we currently have in place hit the maximum production of 3.6 in 2007, we could produce another 4,000 EABL's and 3) the number of new boxes will be markedly reduced next season, assuring that the "new location factor" will not be as important next season as it was this season. The bottom line is: better weather, better locations of boxes and familiarity of nest sites by bluebirds could all combine for a substantial improvement in production next season and beyond.

**Form 21:** Perhaps the least enjoyable aspect of bluebirding is sending in your Form 21's to me. This season we made a major change in the way I expected the data to be reported. This was done because the previous

Form 21 resulted in erroneously submitted data. Many people sent in data recording bluebird nests built after chickadees or TRES's fledged as "2nd bluebird nests" when they should have been recorded as "first bluebird nests" in the box. There was no certain way to detect such errors in the submitted data. Moreover, there was no way to tell how many bluebirds were fledged from 1st, 2nd or 3rd fledged nests—something



Jeff & Lynn Dodge

important to me. Finally, there are rare but predictable numbers of EABL nests that produce four clutches of eggs per season (6 on the Audubon Bluebird Trail this season). The old Form 21 had no place to record these data, so they were never used. The new Form 21 eliminates these three problems. And it provides data on egg and chick mortality (also important to me), that has never been available before. Some people suggested that the Form 21 would cause monitors to stop sending in their data. There have been only two people of which I am aware that used the complexity of the Form 21 as an excuse for not sending in their data. And, since they were offered help by me, I suspect other reasons for their behavior. On the contrary, we set new records for all categories dependent on the Form 21. The facts are: 1) monitors handed in their data in record numbers and

2) handed them in on time (only one was received after the October 10 deadline). I thank the monitors for their dedication to BRAW by both reporting their Form 21's and doing so in a timely manner. Does that mean that all monitors handed in their data accurately? No, of course not! But it is relatively easy to detect errors on the new Form 21 and I could then email or call the monitor and obtain the accurate data. The bottom line

is: the 2010 data ended up to be **more accurate** than in any of the other five years I have served as Data Collection Coordinator for BRAW and that is of major importance to me. But I am still not satisfied. The BRAW Directors will continue tweaking the Form 21 to improve its ease of interpretation while keeping the basic data collected the same. On Aug. 1, 2011, I will send all BRAW monitors from this season "tutorial sheets" which "walk you through" the data recording process. The tutorial sheets were introduced at the Annual State Convention, and

produced no negative feedback. These sheets should eliminate almost all questions about accurately completing the new Form 21 and raise the accuracy of our reports to the next level.

**Annual Report II:** In the Spring Issue of the Wisconsin Bluebird I will provide a 2nd article for the Annual Report. It will include information about EABL and TRES production in different counties and egg & chick mortalities in different counties. In addition, I will recognize persons who monitored "Trails of Honor" (10+ boxes with 2-3.18 birds produced/box) and "Trails of Excellence" (10+ boxes with 3.19+ birds produced/box). I will also list all monitors by county, the 1,000 fledgling county club and the 100 nest box club. Until then, bask in the glory of a job well done with bluebird production in Wisconsin. **No state does it better!**