

# OKLAHOMA NESTBOX PROJECT

## Summary for the 2008 Season



Photo taken by A. Freeman. "It is somewhat of a rarity for me to see all of the fledglings from one box so close together. They were high up in the locust trees close to the box they fledged from just the day before. They allowed me just this one shot and then scattered in all directions." April 30, 2008

## Lands and Wildlife Diversity Program

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INTRODUCTION

The Oklahoma Nestbox Trails Project was initiated in 1985 to enhance habitat for cavity-nesting birds in Oklahoma and reverse the population decline noted for the Eastern Bluebird (*Sialia sialis*). The project depends entirely upon volunteers to place the boxes in suitable habitat, monitor usage, control competition from House Sparrows, alleviate predation problems and report the nesting season's results. The Oklahoma Department of Wildlife Conservation's Wildlife Diversity Program would like to especially give credit to those trail reporters who take the time and have the dedication to establish extensive trails and report on them. The database of the Oklahoma Nestbox Trail Project provides a "window" into the conservation of cavity-nesters particularly bluebirds in Oklahoma.

The Wildlife Diversity Program would also like to express our sincere gratitude to the **Oklahoma Bluebird Society** (OBS) for promoting bluebird conservation in Oklahoma. Thirty-three percent (10) of the bluebird nestbox reports we received for the 2008 breeding season listed they were affiliated with OBS. If you wish to learn more about bluebirds please consider joining this important conservation organization. They have already made a significant contribution to conservation by encouraging trail monitors to provide us with their data. Membership includes receiving their excellent newsletter, *The Hole Story*, which provides good information about monitoring bluebird nesting activities and habitat enhancement. Heart-warming stories provided by members will offer inspiration! A membership form is included in your packet.

Of special note to the Oklahoma Nestbox Trails Project are the nestbox trails monitored by state and federal agencies. Since 1995, the Natural Resources Branch of Fort Sill has been monitoring 2 trails with a total of 110 nestboxes (more or less). Kevin McCurdy, wildlife biologist on Fort Sill performs the monitoring task with enthusiasm in the arid region the trails are located and his trails have yielded new confirmed breeding species for the region including Ash-throated Flycatchers and Tree Swallows to the Oklahoma report. Two nestbox trails are monitored and maintained on Oklahoma Department of Wildlife Conservation (ODWC) installations by employees and volunteers. The four nestboxes located at the Oklahoma Fishery Research Laboratory on south base at the University of t Oklahoma, was established in 1991 and has been faithfully monitored by Fisheries Technician Keith Thomas. The second trail, located on the new Arcadia Conservation Education Area (ACEA), was established in 2005 and includes 25 nestboxes provided by boy scouts. Damon Springer, ACEA manager, coordinates the placement of the trail and repairs and/or relocates nestboxes as needed. Damon also coordinates the monitoring of the trail which is conducted jointly by the Oklahoma Master Naturalists and ODWC staff.

The staff of the Oklahoma Wildlife Diversity Program wishes to extend our sincerest "thank you" to all trail monitors who know the work, the joy and the frustrations of maintaining a bluebird trail. Thank you for helping bring back the Eastern Bluebird.

## RESULTS

The number of nestbox trail reports received for the 2008 breeding season (39) reflected an increase from the 2007 (31), which was down significantly from the previously year (48). Accordingly, the number of nestboxes monitored increased (628) as compared to 2007 (545). Nineteen (19) counties are represented for the 2008 breeding season, a significant increase over the 14 counties in 2007 but a decrease from 2006 where 21 counties were represented.

Table 1 provides a ten year comparison (1998-2008) of survey results. Please note that the comparison focuses primarily on Eastern Bluebird breeding activities.

The top four species in frequency of nesting attempts and occurrence on trails were the **Eastern Bluebird, Carolina Chickadee, Tufted Titmouse** and the **Carolina Wren**. Thirteen (13) identified bird species were reported nesting in nestboxes. Nesting attempts of these cavity-nesting bird species by year is provided in Table 2. In 2008, the House Sparrow was again an unwelcome species on the list. However, NOT ONE CHICK fledged out of the 5 nesting attempts reported with a total of only 15 eggs laid! This demonstrates how continual monitoring helps to alleviate competition from these non-native species. Congratulations!

As in previous years, not all nesting attempts were monitored throughout the breeding season, and therefore, the number of eggs laid, hatched, and young fledged represent the minimums for the species (Table 3). Monitors reported at least **1,530 Eastern Bluebirds** fledged from **434 clutches**. Figure 1 is a map of Oklahoma showing bluebird data by county for the 2008 breeding season. Included are the number of monitored nestboxes and the number of fledgling bluebirds reported by county.

### DISCUSSION

the data, based on submitted reports, reflects the Eastern Bluebird breeding success rate for 2008 is 3.5 fledged per clutch. This demonstrates an increase from 2007 (3.1 fledged per clutch) but is in accordance with previous years.(See Table 1.) It is also noteworthy that monitors reported much less House Sparrow activity than previously experienced with their nestboxes.



Darold Hunter

The **total number of fledgling bluebirds reported** to the Oklahoma Nestbox Trails Project since 1985: **57,113**

TABLE 1. Ten year comparison of breeding success reported for Eastern Bluebirds using

monitored nestboxes.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Counties Reporting</b>	31	21	24	25	22	21	21	28	21	15	19
<b>Reports Submitted</b>	52	46	47	47	40	44	51	71	48	31	39
<b>Species*</b>	12	11	11	11	7	9	10	12	10	12	13
<b># Nestboxes Monitored</b>	1280	963	871	803	714	780	767	973	744	545	628
<b>Nesting Attempts</b>	1458	1075	879	703	650	664	110	734	754	386	467
<b>Clutches</b>	1290	1053	811	649	588	641	612	736	715	367	434
<b># Eggs</b>	5958	4622	3592	2847	2611	2863	2676	3309	3253	1653	1885
<b>Eggs/Clutch</b>	4.6	4.4	4.4	4.4	4.4	4.5	4.4	4.5	4.5	4.5	4.3
<b># Chicks</b>	4444	3704	3002	2019	1998	2250	2165	2708	2519	1203	1609
<b>Chick/Clutch</b>	3.4	3.5	3.7	3.1	3.4	3.5	3.5	3.7	3.5	3.3	3.7
<b>Chicks/Eggs</b>	75%	80%	83%	71%	76%	78%	81%	82%	77%	73%	85%
<b># Fledged</b>	4395	3383	2789	1907	1879	2128	2092	2551	2317	1133	1530
<b>Fledged/Clutch</b>	3.4	3.2	3.4	3	3.2	3.3	3.4	3.5	3.2	3.1	3.5
<b>Fledged/Eggs</b>	74%	73%	77%	67%	72%	74%	78%	77%	71%	68%	81%
<b>Fledged/Hatched</b>	98%	91%	93%	94%	94%	94%	97%	94%	92%	94%	95%

\* Includes all species reported using the monitored nestboxes.



TABLE 2. Nesting Attempts by Year.

Species	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Eastern Bluebird</b>	1390	1075	879	686	690	664	654	734	634	386	467
<b>Carolina Chickadee</b>	53	36	47	49	39	40	59	92	60	38	53
<b>House Sparrow</b>	143	118	78	90	70	105	89	59	38	76	13
<b>Bewick's Wren</b>	19	8	13	6	11	16	17	20	4	11	8
<b>Carolina Wren</b>	22	6	12	6	5	11	9	7	6	1	15
<b>House Wren</b>	6	3	3	2	1	0	0	7	2	1	3
<b>Tufted Titmouse</b>	45	31	71	20	18	40	27	32	22	22	29
<b>White-breasted Nuthatch</b>	1	0	1	1	0	0	0	0	0	0	1
<b>Great-crested Flycatcher</b>	5	7	4	6	5	4	4	2	5	3	5
<b>Tree Swallow</b>	0	0	1	0	0	0	0	4	4	4	6
<b>Eastern Phoebe</b>	0	0	0	0	0	5	2	0	2	2	2
<b>House Finch</b>	0	1	0	1	0	0	0	0	0	0	0
<b>Eastern Wood-Pewee</b>	0	1	1	1	3	0	3	0	0	0	0
<b>European Starling</b>	0	0	0	1	4	4	1	2	0	0	8
<b>Ash-throated Flycatcher</b>	0	0	0	0	0	0	1	1	0	2	0
<b>Prothonotary Warbler</b>	0	0	0	0	0	0	0	0	0	1	2



TABLE 3. Nesting Success by Species in 2008.  
PC = per clutch

Species	Clutches Monitored	Eggs Laid		Eggs Hatched		Young Fledged	
		Total	PC	Total	PC	Total	PC
<b>Eastern Bluebird</b>	<b>434</b>	<b>1885</b>	<b>4.3</b>	<b>1609</b>	<b>3.7</b>	<b>1530</b>	<b>3.5</b>
Carolina Chickadee	50	274	5.5	214	4.3	212	4.2
Tufted Titmouse	27	161	6.0	128	4.7	109	4.0
House Sparrow	13	15	1.2	5	0.4	0	0
Carolina Wren	14	57	4.1	43	3.1	40	2.9
Bewick's Wren	11	39	3.5	37	3.4	37	3.4
House Wren	3	13	4.3	13	4.3	13	4.3
Tree Swallow	6	31	5.2	26	4.3	25	4.2
Great-crested Flycatcher	4	16	4.0	13	3.2	12	3.0
White-breasted Nuthatch	1	0	0	0	0	0	0
Eastern Phoebe	2	7	3.5	7	3.5	7	3.5
Prothonotary Warbler	2	0	0	0	0	0	0
European Starling	8	0	0	0	0	0	0

## COMMENTS

Following are the comments provided by the trail reporters. Thank you so much for taking the time to provide some thoughts, ideas, and concerns:

- Sparrows were a problem again this year. Tore out many nests. Finally the bluebirds & wrens starting nesting. One nest in each box and then they left. (Woodward)
- Something unusual/unknown happened on second nesting attempt; 2 healthy babies (17 days old) disappeared due to unknown cause, (I know this because I looked at them at 6:30 pm on May 26 and they were in the box and on May 27 at 6:30 am they were gone). The parents could not believe it either, they made numerous trips to the box all day looking for their babies. No obvious known predators. I have removed, cleaned and stored boxes for this season. I do not leave them out in winter. (McCurtain)
- This is our first year. We live out about 3 miles from town. Wanda Hebard got us started. I have 4 boxes out. We are excited. (Payne)
- Snake got 3 babies. (Payne)
- Every year they (Eastern Phoebe) nest on my porch light fixture. I had 3 bluebird boxes but not bluebirds. (Payne)
- When I see sparrows I shoo them off! (Payne)
- Destroyed cowbird egg in Carolina Chickadee nest, then nest was abandoned. Killed 5 male & 2 female house sparrows with trap. Male & female Prothonotary Warbler started a nest & then abandoned it. (Pawnee)
- With both clutches the parents stopped coming and the chicks died. In the second clutch one survived & I took it to Wild Care here in Norman. I called a week later & it was still alive. Not sure if disease, predatory birds or poisoning due to pesticides killed them. We own an organic lawn. So sad telling our little children that all our bluebird babies are dead...twice! (Cleveland)
- Eastern Phoebe nested on vent pipe on cabin. Had 2 clutches with 8 eggs & 8 fledglings. (Osage)

- This was perhaps the most successful year for our bluebirds since we established our trail in 1987. Out of 43 nesting attempts only one was unsuccessful. Now that's a rare occurrence on our trail! But just the fact that we had a record number of fledglings made this an outstanding year for our bluebirds. (Beckham)
- We probably lack the expertise to identify birds other than bluebirds. Many eggs are almost identical and if mother bird is present she is difficult to see within the box and if she flies out it is too quickly to accurately identify. Although 10 boxes is the official count of boxes, #7 box is missing; so only 9 are used. Because of the boxes already being marked we chose not to re-number to avoid confusion. (Cleveland)
- Had a great year, fledged 22 by May first because of early warm weather. I did not have one sparrow nest this year! (Beckham)
- Checked trail at least twice each week during nesting season – 6 houses had 2 successful nests each. (Wagoner)
- I have been ill most of the year and unable to monitor the trail satisfactorily but it looks as if they didn't need my help. No sparrow invasion! (Oklahoma)
- Raccoon got 4 of my baby bluebirds! (Creek)
- Trapped and eliminated 16 house sparrows as compared to 63 house sparrows in 2005, 51 in 2006 and 54 in 2007. No explanation for big drop in house sparrows!! (Wagoner)
- Fewer eggs this year but more fledged. (Osage)
- Carolina Wren nested in flower pot on front porch. Eastern Phoebe used 2 year old nesting shelf on south side on house in the shade. (Cleveland)
- was a great year for baby birds in my yard--No Snakes or raccoons trying to get them. Also a very great year for other birds nesting in trees and shrubs in my yard--2 Mockingbird nests in Burford holly bushes..2 Blue Jay nests in Oaks..at least 2. (Cleveland)
- I did not get back to clean the box out after the birds fledged. When I checked today, there were already two new eggs in it. (Comanche)
- Bird house was very close to house, I could sit on patio and watch everyday, I also had a camera in the box and could watch on TV. I feed the birds mealworms, they have been the joy of my spring and summer, they seem to know me and I know their song. (Stephens)
- Numbers may still be down because of all the rain last year. Some habitat work was done to clear out the Mesquite Trees which may have caused the numbers to decrease. This was done to make the land more diversified. (Comanche)
- Thanks to Dennis and Carol Stayer who check this trail every week during the nesting season. They do great work. (Comanche)
- So far this year we have raised 6 broods of bluebirds. Question, will these birds stay in our area? Also how many more boxes do we need to put up? Since we have had our trail we generally raise 4 to 6 broods. (Okmulgee)
- Kelsey has just finished 3rd grade at Asher Elementary school. She has also just finished her 1st year of the Adventure level of Camp Fire USA. One of the emblems that a Camp Fire member can earn is the Save the Bluebirds emblem. Doing this report for you helped her obtain the emblem. (Pottawatomie)
- In 2007 there were 5 nests and a total of 23 fledglings. In 2006 there were 4 completed nests and 19 fledglings. Having the 3 boxes in the 2.5 acre yard provides the necessary protection. We also have humming birds and road runners. (Payne)

## 2009 UPDATE

Enclosed please find a survey form that can be used to submit 2008 results. You may also submit your data online at the following location on ODWC's website:

<http://www.wildlifedepartment.com/amateurbiologists.htm>

and then click on "Bluebird Nestbox Survey".

Happy Bluebirding in 2009!

HEY BLUEBIRDERS! DID YOU KNOW THAT...

In September 2008, the Lazy E Arena was transformed into the state's largest indoor and outdoor recreation event - Oklahoma Wildlife Expo. In 2008, over the three day event more than 35,000 people from across Oklahoma and even some from neighboring states converged at the Lazy E for three days of outdoor and indoor fun!



**So, what is the Oklahoma Wildlife Expo and**

### **WHY SHOULD BLUEBIRDERS CARE?**

It's an outdoor experience where visitors fish, shoot, kayak, mountain bike, see and touch wildlife, learn about recreation in the great outdoors. And it's **FREE!**

Presented by the Oklahoma Department of Wildlife Conservation and a coalition of conservation organizations, agencies and sponsors, Expo celebrates our great state's natural diversity and opportunities for the sporting enthusiast. From camping and outdoor skills to shooting sports and fishing, from bird-watching to kayaking, Expo visitors have an opportunity to try their hands at three days of fun in the outdoors.

**New in 2007** was the first ever make-and-take offered at Expo -**BLUEBIRD BOXES!** The outdoor activity was limited to the first 20 families that arrived at the booth site. Needless to say, every time slot was full at least 30 minutes before the activity! Each family was provided pre-cut lumber, screws, nails and cordless screwdrivers. A brief but very informative presentation was given by Mike Porter from the Sam Noble Foundation (of which many visitors listened even though they could not make a bluebird house!) and then the fun began!!!! **Over 260 bluebird boxes were constructed and taken home by the proud families that put them together.** Visitors and participants were provided a hand-out produced by the Sam Noble Foundation.

Keith Thomas deserves a huge pat on the back for thinking up this idea and seeing it through even to applying for grants and contacting lumber companies for contributions. However as

you can imagine once the construction of the bluebird house starts, many volunteers are needed to help offer encouragement and an extra hand.

We would also like to acknowledge **Tom Hobza and his wife** who represented the **Oklahoma Bluebird Society** and volunteered many, many hours to helping families build their on bluebird nest box!!!!

**If you would be interested in volunteering at the Bluebird House Make-and-Take at the 2009 Wildlife Expo, please contact Mel Hickman to request a volunteer application:**

**Phone number: 405-424-0099 or email: [mhickman@zoo.odwc.state.ok.us](mailto:mhickman@zoo.odwc.state.ok.us)**

We can guarantee that you will enjoy the experience and the hospitality offered by ODWC to our volunteers!

Wildlife Expo 2009 is **September 25 – 27<sup>th</sup>**.

For more information check out [www.wildlifedepartment.com](http://www.wildlifedepartment.com) and click on “Expo” in the lower right corner.

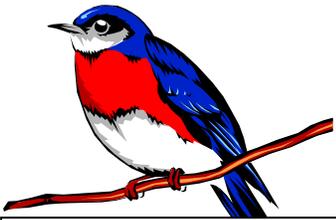
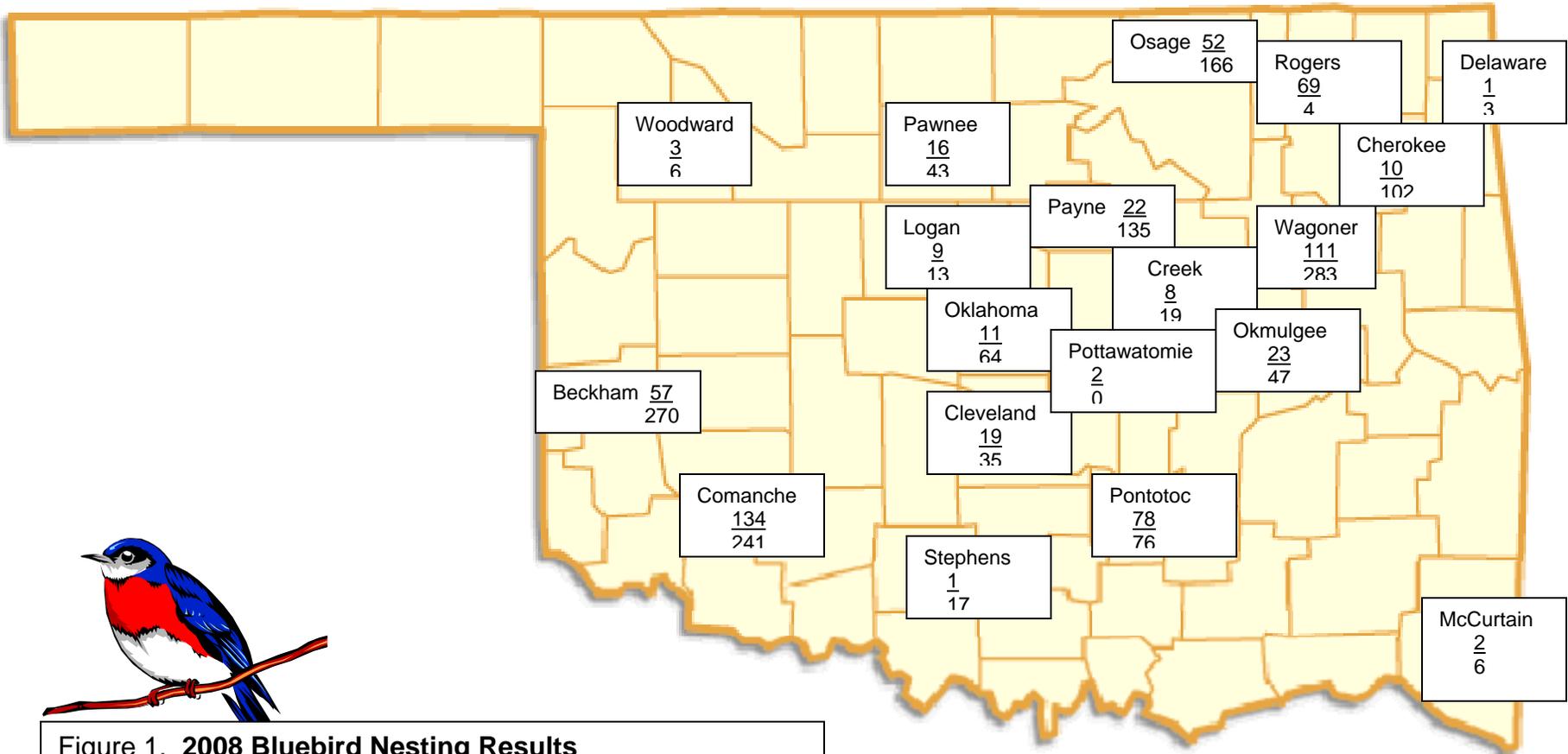


Figure 1. 2008 Bluebird Nesting Results

The top number is the number of nestboxes monitored;  
 Bottom number is the number of bluebirds fledged