

OKLAHOMA NESTBOX PROJECT

Summary for the 2007 Season

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 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 2007 breeding season listed they were affiliated with OBS. If you wish to learn more about your 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. The database of the Oklahoma Nestbox Trail Project provides a "window" into the conservation of cavity-nesters particularly bluebirds in Oklahoma. 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. Three nestbox trails are monitored and maintained on Oklahoma Department of Wildlife Conservation (ODWC) installations by employees and volunteers. The 26 nestbox trail, 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. (More about Keith later!). 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 15 nestboxes at the Byron State Fish Hatchery is maintained and monitored by volunteers from the Byron Hatchery Watchable Wildlife Area. During 2007, volunteers Darold and Maella Hunter, documented the first nesting of Tree Swallows since 1997 in Alfalfa County. The previous documented nest had been confirmed at the Salt Plains National Wildlife Refuge.

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 2007 breeding season (31) reflected a significant decrease from the 2006 (48), which was down significantly from the previously year (71). Accordingly, the number of

nestboxes monitored decreased (545) as compared to 2006 (744). Fourteen (15) counties are represented for the 2007 breeding season, a decrease over the 21 counties in 2006. Table 1 provides a ten year comparison (1997-2007) 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**, **House Sparrow**, **Carolina Chickadee** and the **Tufted Titmouse**. Twelve (12) identified bird species were reported nesting in nestboxes. Nesting attempts of these cavity-nesting bird species by year is provided in Table 2. In 2007, the House Sparrow was again an unwelcome species on the list. However, only 3 chicks fledged out of the 76 nesting attempts reported with a total of only 6 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 **1,133 Eastern Bluebirds** fledged from **367 clutches**. Figure 1 is a map of Oklahoma showing bluebird data by county for the 2007 breeding season. Included are the number of monitored nestboxes and the number of fledgling bluebirds reported by county.

DISCUSSION

For many years to come, Oklahomans will remember the rainfall during the summer of 2007. Between June 1 and July 30, statewide rainfall amounts were at a 187% departure from normal. Though the rainfall was needed to end a 2-year drought the resulting flooding caused unusual problems for those not expecting to be unable to get to bluebird trails because of washed out roads and low-water crossings! However the good news is that the data, based on submitted reports, reflects the Eastern Bluebird breeding success rate for 2007 (3.1 fledged per clutch) is not significantly lower than in previous years.(See Table 1.)



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

55,583!

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Counties Reporting	24	31	21	24	25	22	21	21	28	21	15
Reports Submitted	40	52	46	47	47	40	44	51	71	48	31
Species*	9	12	11	11	11	7	9	10	12	10	12
# Nestboxes Monitored	1081	1280	963	871	803	714	780	767	973	744	545
Nesting Attempts	1072	1458	1075	879	703	650	664	110	734	754	386
Clutches	980	1290	1053	811	649	588	641	612	736	715	367
# Eggs	4221	5958	4622	3592	2847	2611	2863	2676	3309	3253	1653
Eggs/Clutch	4.3	4.6	4.4	4.4	4.4	4.4	4.5	4.4	4.5	4.5	4.5
# Chicks	3731	4444	3704	3002	2019	1998	2250	2165	2708	2519	1203
Chick/Clutch	3.8	3.4	3.5	3.7	3.1	3.4	3.5	3.5	3.7	3.5	3.3
Chicks/Eggs	88%	75%	80%	83%	71%	76%	78%	81%	82%	77%	73%
# Fledged	3655	4395	3383	2789	1907	1879	2128	2092	2551	2317	1133
Fledged/Clutch	3.7	3.4	3.2	3.4	3	3.2	3.3	3.4	3.5	3.2	3.1
Fledged/Eggs	87%	74%	73%	77%	67%	72%	74%	78%	77%	71%	68%
Fledged/Hatched	97%	98%	91%	93%	94%	94%	94%	97%	94%	92%	94%

* Includes all species reported using the monitored nestboxes.



TABLE 2. Nesting Attempts by Year.

[illegible]

TABLE 3. Nesting Success by Species in 2007.

Species	Clutches Monitored	Eggs Laid		Eggs Hatched		Young Fledged	
		Total	PC	Total	PC	Total	PC
Eastern Bluebird	366	1653	4.5	1203	3.3	1133	3.1
Carolina Chickadee	36	213	5.9	168	4.6	166	4.6
Tufted Titmouse	22	123	5.6	97	4.4	92	4.2
House Sparrow	4	6	1.5	3	0.7	3	0.7
Carolina Wren	1	2	2	2	2	2	2
Bewick's Wren	10	53	5.3	43	4.3	42	4.2
House Wren	1	6	6	6	6	6	6
Tree Swallow	4	24	6	13	3.2	13	3.2
Great-crested Flycatcher	3	9	3	1	0.3	0	0
Ash-throated Flycatcher	2	9	4.5	4	2	4	2
Eastern Phoebe	2	4	2	4	2	4	2
Prothonotary Warbler	1	2	2	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:

-I'm amazed at how they survived that horrible ice storm. Ice for days, was from ½" to ¾" on everything. Huge trees were broken in half and even uprooted. (Wagoner County)

-I lost 10 babies during a March 15th freeze. I've decided to start cleaning out house wren nests, I think I lost bluebird eggs due to them. (Beckham County)

-Sparrows are always a problem. However I have Martin Houses so they seem to be more of a problem with them. I use a trap purchased from Purple Martin Society that work GREAT! (Comanche County)

-No predators or unwelcome species this season. Slow start to season, first egg laid March 24th, but a long season...last bluebird fledged on September 3rd. (Okmulgee County)

-I had a lot of trouble with sparrows this year. I tore numerous sparrow nests out before the bluebirds finally built a nest. Then they left and I had 2 wrens build nest. (Woodward County)

-Late freeze, heavy rains and more house sparrows reduced bluebirds fledged from 216 in 2006 to 111 this year on the same trail. Trapped and eliminated 54 house sparrows. (Wagoner County)

-First time since 1991 no bluebird nesting attempts in the 3 boxes...reason unknown...weather, too hot, too rainy, city noises, etc.! (McCurtain County)

-I did not have a single sparrow invasion this year. (Oklahoma County)

-Rough year – lost a lot of birds to late cold spell this spring. Seemed to have more problems with snakes and coons this year. (Osage County)

-Found 2 dead adult bluebirds in different boxes. Both of them had head wounds. Suspect sparrows. Had 1 pair of bluebirds that nested 4 times using the same box each time. The female would incubate the eggs at least 20 days at which time I would crack them. She laid a total of 19 eggs and none of them were fertile. Any suggestions? (Beckham County)

-This is the first time I have EVER put up a box! So excited about the large number of babies!! (Cleveland County)

-Eight eggs (in two different boxes) were abandoned and unhatched following a hard freeze in April. A bull snake was found in one nestbox. All that was left was a few feathers from 4 babies. Will use predator guards next year. (Payne County)

-The only reliable data collected on Fort Sill this year due to floods, and more floods, and rain and rain. Thanks to my volunteers. Data is incomplete because of the rain and floods that wiped out crossings. Unable to get to boxes due to flooding. I was able to check about three times and get some data. Worst year since I have been at Fort Sill for rain and floods. (Comanche County)

2008 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 2008!



HEY BLUEBIRDERS! DID YOU KNOW THAT...

In September 2007, the Lazy E Arena was transformed into the state's largest indoor and outdoor recreation event - Oklahoma Wildlife Expo. In 2007, over the three day event more than 37,000 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 200 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. The fact sheet is included in this packet.

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.

If you would be interested in volunteering at the Bluebird House Make-and-Take at the 2008 Wildlife Expo, please contact Mel Hickman to request a volunteer application:

Phone number: 405-424-0099 or email: 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 2008 is **September 26 – 28th**.

For more information check out www.wildlifedepartment.com and click on “Expo” in the lower right corner.





Figure 1. 2007 Bluebird Nesting Results

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

