

Production of Eastern Bluebirds in Monitored Houses

Annual Report - 2011

Brice Prairie Conservation Association

By Leif L. Marking, Project Manager

Introduction: Bluebirds are cavity-nesting songbirds that are unable to create their own nesting cavities. Natural cavity availability declined significantly when non-native House Sparrows and European Starlings were introduced to this country over 150 years ago because they were victorious competitors for nest cavities and vicious predators of bluebird eggs and young. However, bluebird populations have been increasing since the birth of the North American



Bluebird Society (NABS) in 1978 followed by many state chapters such as the Bluebird Restoration Association of Wisconsin (BRAW). Our Brice Prairie Conservation Association (BPCA) members have recorded our bluebird production activities since 1992 and annually reported the

numbers to the above organizations. Technical information and instructions for producing bluebirds are available from websites of NABS (www.nabluebirdociety.org), BRAW (www.BRAW.org), and BPCA (www.briceprairie-conservation.org). The purpose of this report is to summarize the numbers of bluebirds produced by club members

this year, recognize increases or decreases over last year, identify problems that influenced production, and evaluate procedures to increase future production.

Procedures: We have selected the NABS-style house to promote bluebird production because the design is practical, they are easy to construct, maintain, and clean, and bluebirds readily occupy them. These cedar houses are mounted on 7-foot steel T-type fence posts that are covered

with a 5 ft. section of PVC pipe (1 1/2") for mammalian predator control. The houses are usually placed 200 yards or more apart to respect the territorial nature of bluebirds and to encourage maximum production of bluebirds. New houses are built without air vents, and vents are covered on existing houses to reduce mortality of eggs and young during sustained cold spells in early nesting and to prevent black fly mortality during second nesting. Site and habitat selection favors bluebird ecology with large, open, grazed or mowed areas where bluebirds can forage for insects. House Sparrow competition was diminished appreciably by avoiding active farm and livestock feeding operations. Houses were placed at least 200 feet from woods and thickets to minimize House Wren competition. Weekly observations were recorded in notebooks of choice, and those results were transferred to spreadsheets for calculations, evaluations,

Consolidated Nest Box Summary 2011

Brice Prairie Conservation Association – Individuals

Monitor's Name	Nest Boxes	Bluebirds Fledged	Bluebird Production Rate	Other Species Fledged			Total Other Species	Total Birds Fledged	Overall Production Rate
				TS	CH	WR			
John Adank	20	56	2.80				56	2.80	
Iler Anderson	113	456	4.04	178	16		194	650	5.75
Steve Anderson	1	4	4.00				0	4	4.00
Bill Balmer	12	24	2.00	6	15		21	45	3.75
Fred Craig	144	711	4.94	87	3	94	184	895	6.22
Gail Filzen	10	34	3.40	7			7	41	4.10
Dave Fonger	138	366	2.65	194		26	220	586	4.25
Brad Foss	8	35	4.38				0	35	4.38
Jason Ludwigson	13	33	2.54	5			5	38	2.92
Dick Marco	16	86	5.38	5			5	91	5.69
Amanda Marco	13	44	3.38	14			0	44	3.38
Leif Marking	172	594	3.45	24		37	61	655	3.81
John Smith	12	36	3.00	14		8	22	58	4.83
Kent Stephen	36	77	2.14	4			4	81	2.25
Pete Tabor	1	5	5.00				0	5	5.00
Leif Tolokken	23	114	4.96	19			19	133	5.78
John Wiggert	23	78	3.39	17		27	44	122	5.30
Associates	181	541	2.99	113		76	189	730	4.03
	936	3,294	3.52	687	34	268	975	4,269	4.56

Species Key: TS - Tree Swallow, CH - Chickadee, WR - Wren

Consolidated Nest Box Summary 2011

Leif Marking Associate Bluebirders

Monitor's Name	Nest Boxes	Bluebirds Fledged	Bluebird Production Rate	Other Species Fledged			Total Other Species	Total Birds Fledged	Overall Production Rate
				TS	CH	WR			
Jan/Jim Brady	10	55	5.50	14			14	69	6.90
Louis Benchina	14	19	1.36	4			4	23	1.64
Harry/Ellen Caulum	22	81	3.68			34	34	115	5.23
Verdel Dawson	12	55	4.58				0	55	4.58
Kathryn Engber	6	16	2.67	3			3	19	3.17
Lloyd Hoff	7	15	2.14				0	15	2.14
Morgan Jostad	13	42	3.23	10			10	52	4.00
Tim Knudson	13	29	2.23	23			23	52	4.00
John Leary	10	4	0.40	4			4	8	0.80
Gordon Romskog	24	71	2.96	20		37	57	128	5.33
Jean Ruhser	9	25	2.76				0	25	2.78
Fred Sheldach	16	64	4.00	5			5	69	4.31
Charlie Ustby	25	65	2.60	30		5	35	100	4.00
	181	541	2.99	113	0	76	189	730	4.03

and presentations. These spreadsheets accumulate numbers of eggs, numbers hatched, and count of bluebirds and other cavity-nesting songbirds fledged. Finally, the numbers are consolidated for each member's totals as well as individual and total production rates for all club members and bluebird affiliates.

Results and Discussion: We monitored 936 bluebird boxes this year,

65 fewer than last year. These boxes produced 3,294 bluebird fledglings, a decrease of 1621 compared to the previous year. Our bluebird production rate also decreased this year to 3.5 fledglings per box, primarily due to cold and rainy weather in the early nesting season and severe nestling mortality due to black fly gnat infestations. Several cold periods in April delayed bluebird nesting activities. Those delays favored tree swallows

using those boxes during the first nesting season. Then black flies destroyed hundreds of bluebird nestlings during June and July. Three heat cycles occurred in June and July when local temperatures peaked at 100 degrees or more, but few monitors reported heat mortalities. We are seeking methods to prevent black fly mortalities in the future.

We also produced 687 Tree Swallows, 268 House Wrens, and 34 Black Capped Chickadees. These cavity nesting species readily occupy the bluebird

boxes, especially if they are located on the edge of bluebird territory habitat. We have found that Tree Swallows may dominate boxes placed near the Black River, La Crosse River, smaller streams and ponds, and adjoining wetlands in those areas, so we get some relief for the bluebirds by avoiding those areas. The bluebirds prefer diversified agriculture, mowed, or grazed areas, and if the boxes are properly located and spaced the bluebirds will occupy them before the swallows (serious competitors) are capable of nesting in early spring.

My 13 bluebird associates produced 541 bluebird fledglings, 113 Tree Swallows, and 76 wrens as identified in the second table. These folks are not members of BPCA, but they like bluebirds and our technology for producing them, and they are willing to monitor and contribute to our efforts. Of course they realize their efforts also benefit the bluebird population so we are thankful. This associate concept encourages more people to get involved in serious monitoring and keeping good records. Three of the associates had bluebird production rates of 5.0 or above.

We attribute our success for producing bluebirds to providing a box with a cavity size and shape that appeals to them, selection of ideal habitat for box location, spacing the boxes at least 200 yards, providing predator prevention

(continued on page 6)

Bluebird Production in Houses of Different Types

By Members of Brice Prairie Conservation Association

Year	Number		Production Rate	Predominant House Type
	Houses	Fledged		
1992	29	62	2.1	Hill Lake
1995	42	80	1.9	Hill Lake
1996	54	109	2.0	Tree Branch
1997	65	145	2.2	Tree Branch
1998	78	212	2.7	Tree Branch
1999	91	265	2.9	Herman Olson
2000	101	324	3.2	Herman Olson
2001	142	544	3.8	NABS
2002	285	1,138	4.0	NABS
2003	506	2,001	4.0	NABS
2004	741	3,066	4.1	NABS
2005	880	4,233	4.8	NABS
2006	858	4,756	5.5	NABS
2007	916	5,399	5.9	NABS
2008	977	4,228	4.3	NABS
2009	1,019	5,252	5.2	NABS
2010	1,001	4,915	4.9	NABS
2011	936	3,294	3.5	NABS
	Total	40,023		

BPCA 2011 Report . . .
 continued from page 5

for every box, moving boxes that fail to attract bluebirds after one year, and monitoring weekly to ensure the cavities are available to bluebirds that are searching for a home. House Sparrows interfered with bluebird nesting in limited locations, but wrens again were the most important predator and competitor on our bluebird trails. Our technology for bluebird production is effective, and we feel satisfied and rewarded with the bluebird responses to our efforts and look forward to their return next spring.

