

Ontario Eastern Bluebird Society Nestbox Survey - 1998

William Read

Since 1987, the Ontario Eastern Bluebird Society (OEBS) has conducted a survey of the results from nestbox trails operated throughout Ontario. This report summarizes the data obtained from the 1998 survey.

Methods

A survey was distributed to all known operators of EABL nestbox trails in Ontario and to all members of the Ontario Eastern Bluebird Society. The forms requested standard information regarding the operation and nesting success of the nestboxes. The data reported was incorporated directly into the attached summary table (Table 5) which is arranged on a county basis.

Because not every form was complete, it was necessary to make some estimates for the missing data based on the information that was supplied. For example, if a respondent indicated six successful nestings, but made no estimate of total fledged young, an estimate of (3.5×6) or 21 fledged young was used. On the other hand, no estimates were made for the other categories if they were not reported on the survey.

Results

A total of 6515 EABL's were recorded fledging from the 1998 nestbox surveys. Eighty-three reports were received for 1998. The number of monitored nestboxes increased to 7329 from the 1997 total of 5298. (Table 4)

In order to arrive at a figure that more accurately represents EABL breeding success in 1998, I examined the 44 surveys that recorded both numbers of EABL pairs and fledged young. A total of 651 EABL pairs fledged 3489 young or 5.36 young per pair in 1998. This figure was used to calculate the number of EABL pairs, if not recorded on survey sheets.

The 1998 Nestbox Survey represents a total of 1225 EABL pairs in Ontario. If EABL pair information was not recorded on survey forms, the figure was estimated using an average of 5.36 young per EABL pair per nesting season. In calculating the number of pairs of EABL's, the number of fledged young reported was divided by a factor of 5.36 to establish the estimate of EABL pairs. This calculation is made only if the respondent did not include the number of EABL pairs on the survey form.

Eight hundred and seventy-three EABL's and one thousand four hundred and sixty-three tree swallows were reported banded during the 1998 season. Banding was carried out by David Lamble, Bill Read, Bob Hubert, Dave Raynor, Rick Ludkin, Bill Petrie and Elizabeth Kellog.

Table 1 - Banding Totals

Name	EABL	TRES
Bob Hubert	242	
Elizabeth Kellog	101	400
David Lamble	72	932
Rick Ludkin	9	
Bill Petrie	8	
Dave Raynor	147	131
Bill Read	294	
Totals	873	1463

Nestbox Survey - Other Species

Occupation (number of nestings only - not fledged young) of nestboxes by the usual other bird species occurred with 285 House Wrens, 2342 Tree Swallows, 18 Blackcapped Chickadees and 16 House Sparrows.

Fledged Young Calculation Per EABL Pair for 1998 (Table 2)

In 1998, 651 pairs fledged 3489 young or 5.36 fledged young per pair. This calculation is made using the 1998 surveys that included both fledged young and number of Eastern Bluebird pairs. It does not represent the total fledged young for 1998.

This figure is the highest ever calculated since the survey began in 1987.

Table 2 - Fledged Young Per Pair per Breeding Season - 1989-1998

Year	EABL pairs	Fledged Young	Fledged Young per pair
1989	894	3804	4.26
1990	793	3081	3.81
1991	794	3345	4.21
1992	801	3121	3.90
1993	553	2076	3.75
1994	516	1944	3.7
1995	510	2328	4.56
1996	519	2365	4.56
1997	396	1607	4.06
1998	651	3489	5.36
Total	6427	27,160	4.23

Table 3 Percentage of Attempted EABL Nestings which were Unsuccessful as Reported on OEBS Surveys from 1988-1998

Year	Attempted Nestings	Successful	Unsuccessful	%
1988	2112	1608	504	23.86
1989	2321	1985	336	14.48
1990	2548	1977	571	22.41
1991	2393	1956	473	18.26
1992	2065	1574	491	23.77
1993	1140	805	335	29.28
1994	1107	864	243	21.95
1995	1250	1051	199	15.95
1996	1241	1080	161	12.97
1997	999	813	186	18.62
1998	1416	1216	200	14.12

Table 4 - Fledged Young Per Monitored Nestbox As Reported on OEBS Surveys 1987 - 1998

Year	Boxes Monitored	# of Surveys	Fledged Young	EABL's Fledged per monitored nestbox
1987	* 7503	101	4910	0.65
1988	8809	153	6352	0.72
1989	11426	175	8260	0.72
1990	9209	148	7307	0.79
1991	8784	134	8138	0.93
1992	7605	133	5770	0.76
1993	6561	119	3677	0.56
1994	4999	102	3681	0.74
1995	5653	89	4980	0.88
1996	5718	92	4611	0.81
1997	5298	79	4434	0.84
1998	7329	83	6515	0.89

* Bluebird Nest-Box Trails in Ontario and their Usefulness for Bio-effects Monitoring of Agricultural Chemicals. Technical Report Series No. 202, Ontario Region 1994. Canadian Wildlife Service, Martin K. McNicholl, William F. Read, D.V. (Chip) Weseloh

Table 5 - Summary of the number one presumed cause of lost eggs or nestlings as recorded on 52-1998 Surveys

Cause	No. Occurrences	%
Weather	13	25.0
Raccoons	12	23.1
House Sparrows	10	19.2
House Wrens	3	5.8
Blowflies	3	5.8
Squirrels	2	3.8
Mower Fatalities *	1	1.9
Tree Swallows	1	1.9
Crows	1	1.9
Genetics	1	1.9
Eggs Abandoned	1	1.9
Unknown	1	1.9
Cooper's Hawk	1	1.9
Vandalism	1	1.9
Mice	1	1.9
Total	52	99.8%

* Lawn mower or tractor mower hits nestbox pole breaking eggs. Adult female EABL then removes all the broken eggs from the nest.

Weather continues to be the number one presumed cause of lost eggs or nestlings with raccoons and house sparrows second and third. There is very little that can be done to stop weather related nestling mortality, but with proper monitoring and predator control, nestling losses caused by raccoons and house sparrows can be almost completely eliminated.

EABL's were reported on 1998 survey forms from the following areas over the winter of 1997-98. Sightings only - no numbers reported.

Don Smith, Sarnia	February 24, 1998	
Hank Zuzek, Beamsville	January 5, 1998	overwintered
Henry Bauer, Fenwick	February 19, 1998	
R. Glen Lundy, Niagara		All winter
R. Martin Bird, Brighton	December 12 and 13, 1997	
Hazel Bird, Harwood		All Winter - First overwintering record
Dave Wilson, Lynden		All Winter
Al Robinson, Simcoe	February 21, 1998	
Lou and Sue Kociuk, Port Rowan		All Winter
Doug Harrison, Aylmer		overwintered
Bob Hubert, St. Thomas	January 1, 1998	overwintered
Eleanore and Peter Davies, London	December 6, 1997	
Essex County, Essex County Field Naturalists		All year round
Don Wills, Caledonia		Sightings all winter

Acknowledgments:

We would like to thank the following people or groups for their contributions. Without their help, this summary would have not been possible. The names do not consider family teams or naturalist groups whose members were not individually identified.

Algoma	Erwin Meissner
Brant	Donald Wills, Peter & Nancy Reisiger, Bill Read, CWS
Bruce	M.J. Doll, Dennis & Gwen Lewington, Doug Martin, Lorne Smith, Co-Op Effort Gord Kingsmill, Ron Yorke
Dufferin	Leo Smith, George & Kittie Fells, J. Sheldon Anderson
Durham	Mike Sullivan
Elgin	Bob Hubert, Joe Hurst
Essex	Essex County Field Naturalists
Grey	Co-op effort, Lorne Smith, Patricia Burgon, David & Sharon Turner, Brad de St. Aubyn, Ernie Nicholls, Gerard S. Powers
Haldimand-Norfolk	Anne H. Davidson, Alan Robinson, Ken Crabbe, Don Bull, Wilfred H. Martin, Lou & Sue Kociuk, Loretta Mousseau, Lorraine Precius
Halton	Halton Bluebird Club, Michael M. West
Hamilton-Wentworth	George Coker, Christel Charlton, Dave Wilson, Roy Allen, Glanbrook Conservation Club
Hastings	John & Janet Foster
Huron	Tom Hunt, Thomas Lobb
Lambton	Don A. Smith, Mike Bouman
Lanark	Jeff Mills
Manitoulin	George Third, Clayton Van Horne, Mark Denomme
Middlesex	Eleanor & Peter Davies, Don Gutoski, Francis H. Pulham, Roger J. Richards
Muskoka	J. Robert Burton, Muskoka Field Naturalists Co-op Effort
Niagara	Hank Zuzek, Henry Bauer, R. Glen Lundy, Robert Eberly
Northumberland	Hazel Bird, Elwood M. Jones, Marie & Heinz Ott, R. Martin Bird, Presquile Brighton Naturalists, Elizabeth Kellog
Ottawa-Carlton	Michael & Dorothy Shaw, Ottawa Duck Club, Jim Sauer, Dale Crook, Barc Dowden
Oxford	Douglas Harrison
Peel	Phyliss Graydon
Perth	Lynda & Wayne Buck, Hilbert Mohr
Peterborough	Garnet Graham
Renfrew	Howard H. Wickett, John W. Clark
Simcoe	R.W. Adams, Gord Luker, Sandy Agnew, Lois & Fred Fallis
Timiskaming	Lloyd Taman
Victoria	Don Parkes, Herb Furniss, Tom & Louise Horne
Waterloo	Norm Shantz
Wellington	David R. Lamble, Bryan Wyatt, Roy Allen, Susan Blue, Pauline & Leonard Longtin

Table 5. Summary of Responses for Eastern Bluebird nestbox questionnaire for Ontario - 1998

County or District	Survey	Boxes Monitored	Boxes on Trail	Boxes Used	Nestings Successful	Young Fledged	Unsucc. Nestings	Eggs Blue	Eggs White	Nesting Natural Cavities	EABL Pairs Rep.	House Wren	TRES Nestings Succ. / Unsucc.	Black capped Chickadee	House Sparrow	Banded EABL	Banded TRES
Algoma	1	60	60	4	4	19	20	1238		3	150	51	297	37			
Brant	3	656	656	52	268	1027	7	270			74	7	184	4	2	294	
Bruce	4	649	649	43	55	388	9	24			92	2	43	9			
Dufferin	5	621	636	36	137	496	1	41			8		27	6		147	131
Durham	1	38	38	77	8	34	4	95			43	2					
Elgin	2	121	121	15	30	228	20	365	1		52	54	116	12	7	242	
Essex	1	227	227	48	54	232	4	8			245	74	656	6			
Grey	5	1912	1912	1	15	1306	2	41	9		32	35	43	2		9	
Haldimand-Norfolk	9	161	161	10	11	170	1	49			7	2	19	1			
Halton	2	46	46	7	9	41	6	197	7		30	8	97	6			
Hamilton-Wentworth	5	297	297	41	44	171	0	7			2		7	5			
Hastings	1	40	40	2	2	6	1	20			10	8	17	2			
Huron	2	62	62	13	14	52	11	126	8	2	13	2	6	1			
Lambton	2	98	164	8	12	62	5	106			14	6	30				
Lincoln	1	30	30	15	19	74	4	102			18	1	21	2			
Manitowlin	3	116	116	19	21	94	2	44	9		6	2	14	3	4		
Middlesex	4	58	58	5	7	34	8				30	1	49	8			
Muskoka	1	90	150	31	34	119	5	124	4	1	24	1	29	5	2		
Niagara	4	58	105	21	36	141	18	149	9	3	90	12	115	3		101	400
Northumberland	5	496	632	58	125	444	15	464			74	8	106		1	8	
Ottawa-Carlton	2	263	263	82	82	337	10	359			43		90				
Oxford	1	180	180		63	268						2	2				
Peel	1	7	7			0											
Perth	1	34	34	6	9	32		44		1	7		6	10			
Peterborough	1	12	12	1	1	4		4			1						
Renfrew	2	33	33	8	8	32	1	37			6		16	4			
Simcoe	4	74	74	17	19	81	11	114	5		21	3	15	1			
Timiskaming	1	86	86	15	17	59	5	79			15		23	19			
Victoria	3	191	191	60	63	268	13	404	8		51	1	59	9			
Waterloo	1	85	94	22	28	121	11	188			22		36				
Wellington	5	528	533	16	21	175	6	131		6	41	4	220	107		72	952
Totals	83	7329	7667	663	1216	6515	200	4830	60	18	1225	285	2343	262	18	873	1463

Because not every survey was complete, it was necessary to make some estimates for the missing data based on the information that was supplied. For example if a respondent indicated six successful nestings, but made no estimate of the total fledged young, an estimate of 3.5x6 or 21 fledged young was used. On the other hand, no estimates were made for the other categories if they were not reported on the survey.