

**Ontario Eastern Bluebird Society Nestbox Survey - 1995**  
*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 1995 survey.

**Methods**

A survey form 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 x 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**

Record numbers of Eastern Bluebirds fledged from most trials in 1995. A total of 4980 EABL's were recorded fledging from the eighty-nine nestbox surveys. If we had received the same number of surveys as 1989, the fledged young total would probably approach or exceed that year's total.

Eighty-nine reports were received for 1995, a decrease of 13 over 1994. The number of monitored nestboxes increased to 5653 from the 1994 total of 4999 (TABLE 2).

The 1995 Nestbox Survey represents a total of 1084 EABL pairs in Ontario. If EABL pair information was not recorded on survey forms, the figure was estimated using an average of 4.8 young per EABL pair per nesting season. This value has been found typical in earlier studies of EABL's.<sup>1</sup> In calculating the number of pairs of EABL's, the number of fledged young reported is divided by a factor of 4.8 to establish the estimate of EABL pairs. This calculation is made only if the respondent did not include the number of EABL pairs.

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<sup>1</sup> Unpublished report, W. F. Read

In order to arrive at a figure that more accurately represents EABL breeding success in 1995, I examined the 39 surveys that recorded both numbers of EABL pairs and fledged young. A total of 510 EABL pairs fledged 2328 young or 4.56 young per pair in 1995. This figure is much higher than the value of 3.77 recorded in 1994 and more accurately represents breeding success in 1995.

Six hundred and fifty-two EABL's and one thousand four hundred and twenty-two tree swallows were reported banded during the 1995 season. Banding was carried out by David Lambie, Bill Read, Bob Hubert and P.J. Nairaway.

Occupation (number of nestings only - not fledged young) of nestboxes by the usual other bird species occurred with 206 House Wrens, 1301 Tree Swallows, 21 Black-capped Chickadees and 27 House Sparrows. The number of House Wren nestings dropped to 206 from 319 in 1994.

#### Fledged Young Calculation Per EABL Pair

Fledged young calculation per EABL pair - in an earlier unpublished report (W.F. Read, 1988) I calculated that on average each EABL pair would produce 4.8 fledged young over one breeding season. In 1995,<sup>2</sup> 510 pairs reported 2328 fledged young or 4.56 fledged young per pair. On my own CWS trail, 78 pairs produced 374 young or 4.79 young per pair. Don Wills from Caledonia who had a remarkable year in 1995 reported 452 fledged young from 79 pairs or 5.72 young per pair. Both Don's and my own trail totals were included in the calculation for 1995 of 4.56 fledged young per pair. Without these two trails the fledged young total per pair drops to 4.25.

In the future, I will be examining all trails. From 1987 - 1995 to come up with an average figure for fledged young per pair per breeding season. It is very important that individual trail operators include on their nestbox survey the number of pairs of EABL's on their trail.

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2. On those 39 surveys that recorded both fledged young and the number of EABL pairs on their trails.

**TABLE 1 - Percentage of Attempted EABL Nestings which were Unsuccessful as Reported on OEBS Surveys from 1988 - 1995**

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	15.92

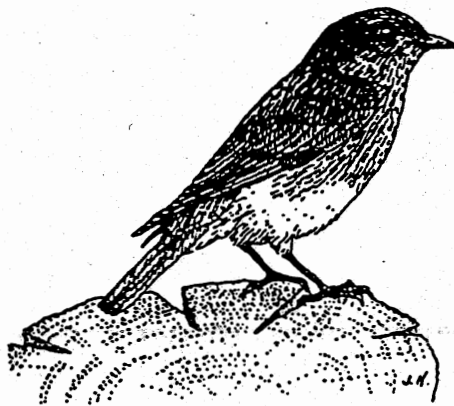
**TABLE 2 Fledged Young Per Monitored Nestbox As Reported on OEBS Surveys 1987 - 1995**

Year	Boxes Monitored	Number of Surveys	Fledged Young	EABL's Fledged Per Monitored Nestbox
1987	1 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

1. 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 3** Summary of the number one presumed cause of lost eggs or nestings as recorded on 56 1995 Surveys

Cause	No. Occurrences	%
Weather	12	21.4
Raccoons	9	16.1
House Sparrows	8	14.2
House Wrens	8	14.2
Humans	6	10.7
Unknown	4	7.1
Squirrels or Chipmunks	4	7.1
Blowflies	2	3.6
Snakes	1	1.8
Tree Swallows	1	1.8
<b>Total</b>	<b>56</b>	<b>99.8%</b>



## Summary

A much milder winter throughout much of North America in 1994-95 meant that more EABL's than usual were able to over winter<sup>1</sup> successfully and return in the spring to their breeding grounds. The January 1995 mean temperature of  $-3.5^{\circ}\text{C}$  was almost  $10^{\circ}\text{C}$  warmer than January 1994's  $-13.2^{\circ}\text{C}$  and  $3.8^{\circ}\text{C}$  warmer than the long term average of  $-7.3^{\circ}\text{C}$ .<sup>2</sup> This pattern extended over most of Eastern North America.

Most nest box trail reports indicated a large increase in the number of pairs that returned to their nesting grounds in 1995. On my own Canadian Wildlife Service trail, the number of pairs increased by 41.8% from 55 in 1994 to 78 in 1995.

The much milder weather in March 1995, meant that most Eastern Bluebird pairs arrived much earlier and were able to establish territories 3 to 4 weeks before the tree swallows arrived.

This much milder spring resulted in record early EABL nestings.<sup>3</sup> Very little weather related nestling mortality occurred in May (in Southern Ontario) which meant that most EABL's were able to successfully fledge young on their first nesting. Table 1 shows the percentage of attempted EABL nestings which were unsuccessful at 15.92%, the second lowest since 1987.

The number one presumed cause of lost eggs or nestlings as recorded on 56 1995 surveys, was again weather at 21.4%, but this was a significant drop from the 1994 survey percentage of 46.6% (see TABLE 3). This statistic is an indication of an excellent breeding season. Because of the warm weather, both during the previous winter and during the breeding season, the EABL population has increased substantially. It is my assessment that bluebird numbers are approaching those recorded from 1989-1991, only a lack of reporting especially on the Bruce Peninsula has kept survey numbers down.

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1. OEBS 1995 Fall Newsletter - Page 1.
  2. As recorded at the Waterloo-Wellington Environment Canada Weather Office.
  3. OEBS 1995 Fall Newsletter - Page 2.

**Acknowledgments:**

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