

THE ONTARIO EASTERN BLUEBIRD SOCIETY

FALL NEWSLETTER - NOVEMBER 1990

2-165 Green Valley Drive, Kitchener, Ontario, N2P 1K3

Welcome to the Fall 1990 Newsletter. There are few birds that can capture the attention of bird watchers more than the Eastern Bluebird. A flock of 15 or 20 bluebirds against a backdrop of beech leaves can be quite spectacular. Since blue and orange are complimentary colours, it makes the blues and oranges more vibrant.

Eastern Bluebirds are late migrants, with the main migration in most parts of central and southern Ontario taking place from mid- to late October and into the first week of November, depending on weather. In northern Ontario, the migration can be as early as mid- to late September. There are good reasons for this late migration: There are still plenty of insects, such as grasshoppers, and wild berries are usually abundant at this time of the year. By leaving later, the EABL's can avoid migrating with most of the bird hawks that might prey on them as they travel, such as Sharp-shinned Hawks and Merlins.

Greg Sadowski, who surveys raptor nests in the Newmarket area, reported to me that he found EABL feathers in several Sharp-shinned Hawk nests. Being a hawk watcher and bander as well as a bluebirder, I don't begrudge the Sharp-shinned Hawks a few bluebird dinners: It's all part of the natural order and there are far fewer Sharp-shinned Hawks than Eastern Bluebirds. (Bluebirds have steadily increased throughout the 1980's, and Sharp-shinned Hawks prey heavily on Downy Woodpeckers as well--personal observation.) A pair of Sharp-shinned Hawks have nested in the pine plantation next to me since 1985 but are seldom seen, especially during the breeding season.)

It is of great advantage for bluebirds to migrate later in the fall, since most Ontario Sharp-shinned Hawks have already migrated south. Most Sharp-shinned Hawks migrate further south than Ontario bluebirds and travel north in the spring after most Eastern Bluebirds have already arrived.

It's hard to believe that another nesting season is over. All indications are that it was a successful one, but it didn't start out that way: Unseasonably cold, wet weather in late May and early June resulted in very high nest mortality across Ontario, a price that bluebirds pay for being early nesters. In most years, it is an advantage as they are able to produce two broods. The last time this happened was in the spring of 1984. Bluebirds quickly renested and in some cases were able to fledge a second brood. I had two pairs of EABL's that fledged young at the very end of August.

I will be better able to determine just how successful 1990 was when I start receiving the nestbox reports for this breeding season.

Wanted: Board of Directors

Since the OEBS was organized, I have been doing most of the work. Doreen Stahlee has been our Membership and Corresponding Secretary for

the past year. Doreen also helped put together the 1988 nestbox report; and with her help, we put out the newsletter and ran last year's annual general meeting. (The next annual general meeting will be held Saturday, April 13th, 1991, at the Royal Botanical Gardens in Burlington.)

It's time we expanded into a Board of Directors in order to distribute the workload more evenly and also to bring new ideas to the organization. We need a Vice President, Recording Secretary, Corresponding Secretary, Treasurer and at least two other directors-at-large. Interested individuals would have to attend meetings in the Kitchener/Hamilton area at least three times per year. Please contact me if you are interested in one of these positions.

Bill Read.

The following article was contained
in the June 1990 Bluebird Notes, published quarterly by the NCBS*.

"Protect Bluebirds Without Threatening Other Native Species
by Donna Dunn.

"Bluebirders can get mighty passionate about our avian friends; the whole purpose of our hobby is to improve the survival odds for the birds. Yet, do we ever go too far?

"While it's true that sparrows and starlings are intruders in the bluebird's realm--against which they have little natural defense--other enemies are part of the natural order. Man stepped in (and flubbed up) by importing foreign birds; therefore it is reasonable that man should again interfere when starlings and sparrows usurp the nesting space of the natives.

"In the same manner, habitat destruction is human doing. It is important for us to provide and protect nursery space and to take all precautions in order to avoid bluebird predation. However, we must be responsible about all forms of wildlife as we pursue our own cause.

"A snake is a monstrous villain when it has made a meal of our baby birds. But we of all people ought to realize that destroying (as opposed to removing) the snake can do more damage than we may realize.

"Remember that snakes, raccoons, raptors and other predators do not eat bluebirds out of vengeance. They eat birds and eggs the same way we eat trout or quail or anything else. True--we want to discourage and avoid these problems, but we don't want to hurt some other species.

"And while we're on the subject: All bluebirders must remember that ALL cavity nesters are at risk to habitat destruction and invasion by non-native birds. Chickadees, wrens, nuthatches, titmice ARE NOT predators of bluebirds, but are instead the victims of the same

* NCBS - Post Office Box 4191,
Greensboro, North Carolina, U.S.A., 27404.

pressures. Although it may be tempting to disturb the nesting attempts of certain native birds in order to encourage others, it is not legal, is not ethical, and is not true to the spirit of good conservation. They all need our protection. And what enjoyable tenants any of these birds can be!

"It is important to protect the safety of bluebirds by choosing box sites carefully, by monitoring regularly, by discouraging and removing pests. However, it is equally important to carefully consider our own impact on nature's balance."

Editor's note: By placing nestboxes in the appropriate location, many native and non-native nest competitors can be prevented. Nestbox design and good monitoring techniques also play a role in preventing competition. Many native species also need our protection and are threatened by many of the same problems that EABL's confront. House Sparrows and Starlings, which are non-native species, should be removed and not allowed to nest successfully in an EABL nestbox. Captured birds can be released (take House Sparrows at least 20 miles away from site of capture) or can be humanely destroyed.

Cowbird Parasitism in EABL Nestboxes by W. F. Read.

I encountered two instances of Cowbird parasitism in nestboxes this year. One was in a nestbox with House Wrens; the other, in an EABL nestbox where the entrance hole had been enlarged by some other animal. The Wrens fledged one Cowbird and three Wrens, while the EABL nesting produced only one fledged young.

The EABL nest contained two EABL eggs and one Cowbird egg. I removed the Cowbird egg after hatching and one of the EABL eggs was infertile. It is possible that the Cowbird may have removed one or more of the Bluebird eggs before laying its own.

I have only had one other instance of Cowbird parasitism and that was in 1989, with five EABL eggs and one Cowbird egg (the Cowbird egg was removed before hatching). Cowbird eggs look very similar to House Sparrow eggs and it is very difficult to positively identify them until after they have hatched. If you have encountered any evidence of Cowbird parasitism in nestboxes, I would like to hear about it.

Eastern Bluebird Banding Preliminary Results by W. F. Read.

Over the past three years, I have been involved in a study to determine the effects of organophosphate insecticides on EABL's and Tree Swallows nesting in apple orchards in southern Ontario.

This has given me an opportunity to band AHY and HY Eastern Bluebirds.** Adults are banded at the nestbox, using a special flap trap (see NABS Sialia, Volume 12, No. 4, pages 135-136). Some AHY females are banded while incubating, but this must be done at the extreme end

** Abbreviations used in this article:

EABL - Eastern Bluebird;

AHY - After hatch year; HY - Hatch year; SY - second year.

of incubation or they will abandon the nest.

I have some preliminary results that may be of interest to bluebirders:

- (1) A female AHY EABL renested in the same nestbox where she had been unsuccessful in an earlier attempt. All five young from the first nesting had died, probably because of cold weather.

It is commonly believed that EABL's will not nest in the same nestbox when the first nesting is unsuccessful; but this second nesting fledged five young.

- (2) Adult EABL's return to the same area in successive years if still alive; but young usually disperse to other areas, increasing the species' chance of being successful.

In 1990, I had one pair of EABL's where both had fledged from the same orchard the previous year. The female laid five eggs, from which two fledged; three eggs were infertile. What made this all the more interesting was the fact that both of these birds fledged the previous year from the same pair: the male from the first brood and the female from the second, making them siblings. They arrived in the orchard about the time of the second nesting, so probably attempted an initial nesting somewhere else. I have had a number of recaptures of SY birds returning to the same orchard where they fledged about the time of a second nesting.

- (3) I had another pair of EABL's, from an apple orchard just north of Hamilton, that were banded in 1989 as AHY birds and that returned to the same nestbox area in 1990 and fledged two broods, one of two young and the second of five young. The first brood was affected by the cold weather in May. Returning to the same area in successive years may be influenced by the success of that pair at that location the previous year.

- (4) In 1990, at this same orchard just north of Hamilton, I recaptured a female AHY bird that had first been banded as an HY female from a natural cavity in an orchard south of Paris on August 1st, 1988. This bird had probably attempted a first nesting somewhere else before arriving at this orchard, as it was around the time of a second nesting. This pair was able to produce two broods of four each, with the last young fledging around August 30th. I hope we can renew acquaintances in 1991.

The AHY female was also banded on May 30th, 1988, at the same natural cavity. She was recaptured in 1990 at a nestbox just south of Glen Morris, where she fledged two broods.

EABL adults which successfully fledge young do not move very far from their original nesting location and the fledged young stay in the immediate area (personal observation and banding results). First brood young may in some cases--depending probably on the size of the second brood--be driven out of the immediate area by adults feeding nestlings from the second brood, so as to ensure an adequate food supply; but they remain on the periphery of their territory or in other parts of the same orchard, keeping in

contact with the adults. In some cases, the adults allow first brood young into their territory; and this year, I witnessed a HY female from a first brood actually feeding nestlings from a second brood. Although I have read that this happens quite often, this is the first time that I have ever witnessed it and I have observed hundreds of nestings. Young from first broods will join the adults and young from second broods to form a small family group which migrates together in the fall.

- (5) One of my most interesting recaptures involved one of the oldest females and her offspring, a male.

Female 87261, banded in 1988 as an AHY female, was retrapped in 1989 (two successful nestings that year) in the same orchard. One of her offspring from 1988, a HY male, was also recaptured in 1989 in the same orchard, where he fledged one young on a second nesting. He was recaptured in 1990 in an orchard about 3 km to the east and fledged four young.

Female AHY 87261 was recaptured in August of 1990 in the same orchard where she nested successfully in 1988 and 1989. She only produced one young from this nesting and probably nested unsuccessfully somewhere else before returning home. All other nesting female EABL's were captured and banded earlier in the same orchard, so it was not a case of her eluding me.

I look forward to encountering both birds next year, although 87261 may be past her reproductive years.

Predatory Deer Mice by W. F. Read.

In the past, I haven't always had the heart to evict those cute little deer mice. The future may be different. This year, I opened a nestbox where I expected to see newly hatched Tree Swallows, only to find an adult deer mouse eating the head off a newly hatched Tree Swallow. Only the remains of Tree Swallows and one body was left. I am now wondering whether deer mice, along with chipmunks, may be responsible for other nest failures where a cause cannot be determined.

Deer mice can be a real nuisance, as their urine will ruin the nestbox and also prevent Tree Swallows and EABL's from nesting in them. If allowed to use the nestbox in the winter, deer mice will nest in it the following spring. It is best to evict them in late fall--so they can find another home before winter--and to leave the nestbox open so they will not reoccupy it.

Nestboxes placed along brushy fence rows with trees are especially undesirable. EABL's will nest in natural cavities along these brushy borders, but the nests tend to be at a much higher elevation, 20 to 25 feet in natural cavities, thus escaping some of these climbing predators (personal observation). As they are freeways for squirrels, chipmunks, raccoons, deer mice and other mammalian predators, if at all possible place nestboxes on top of metal posts or along fence lines that are as far out in the open as possible but within 100 metres of a tree.

EABL Conference 1991

The 1991 Ontario EABL Conference will be held **Saturday, April 13th** at the Royal Botanical Gardens in Burlington, Ontario (the same location as last year). The program has not been set, but in the morning, we hope to have key speakers dealing with research topics on EABL's, followed in the afternoon by workshops dealing with such topics as nestbox monitoring, how to prevent raccoon predation, whether paired nestboxes really work, nestbox design, etc. We will ask bluebirders to bring their nestboxes with them and we hope to include a write-up on each session for the next Newsletter (Fall 1991). Lunch will probably be at the Swiss Chalet. We will endeavor to make it an informal meeting, with lots of time to talk with other bluebirders.

Raccoon-Proof Box

One of the most troubling aspects on an EABL trail is predation by raccoons. It has been my experience that the wooden predator guard placed over the hole to increase the thickness is just not effective, especially when the female EABL builds a high nest. I have in the past recommended lowering the nest to make it difficult for raccoons to reach in and pull the nest apart, but this has to be done carefully (Read, W. F., Sialia 11(4):134).

These are not really solutions: Every nest would have to be carefully monitored; also, as the predator guard thickness is increased, it becomes less desirable for EABL's. Also, visiting nestboxes may actually increase the chances of predation by introducing human scent around the nestbox and by trampling the area underneath the nestbox.

Kevin L. Berner at the State University of New York, Cobleskill, N.Y. 12043, has been experimenting with different nestbox designs and predator guard attachments in order to make a recommendation on a particular design that may be effective against certain native predators, especially raccoons. Refer to the NABS Sialia Journals, Volume 12, No. 3 & 4, for the articles that Kevin has written on experimentation with different nestbox designs to prevent predation by mammalian predators.

The following article was written for the North Carolina Bluebird Society Notes and may prove useful in deterring predators. You might try a 1¼-inch DWV black plastic 45° elbow (79¢) instead of the one recommended in the article.

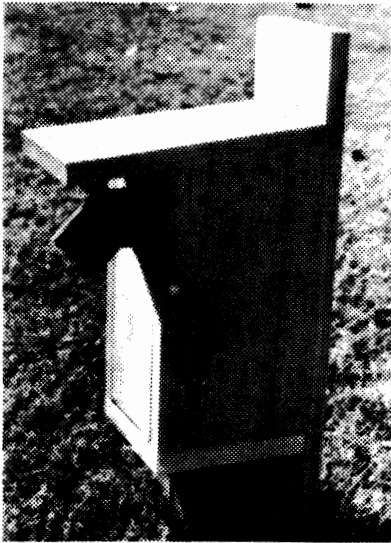
"For Trouble with Flying Squirrels, Try This Plastic Chute Attachment, by Willard Cash, Goldsboro.

"For those of you pestered by flying squirrels entering your bluebird nest boxes and playing havoc with eggs, young and brooding females alike, I have devised a box attachment that may help with or be a solution to your problem.

"The 1989 nesting season and the beginning of this season I find bluebirds, titmice and chickadees will readily accept the box addition.

"I have several boxes situated in areas that flying squirrels are

indeed a serious problem. Although the boxes are tree mounted I have no evidence of flying squirrel entry. As of this writing (April 19) I have three boxes with nesting activity. As yet I have not been able to really test it for sparrow acceptance. I'm in the process now of testing in sparrow territory.



by Willard Cash, Goldsboro

"The 45° 1½-inch elbow of PVC schedule 40 plastic pipe fitted in the entrance hole serves as a deterrent for raccoons and feral cats as well as the flying squirrel.

"Since the elbow extends out and down, the prowlers can't hold on to the slick surfaced material nor can they glide up into it.

"The inside diameter of the elbow is 1½ inches; the outside is exactly 2 inches.

"Fitting the attachment is quite easy since the plastic material can be easily drilled for small nails to be used to hold the elbow firmly in place. It is a good idea to make several cuts across the elbow's underside with a hacksaw blade so

the birds will have a rough surface to grip when attempting to enter the box. The PVC elbows are available at building supply houses and hardware stores at a reasonable price.

"Why not give this gimmick a try if you are confronted with this type of predator problem?"

Editor's note: Because of climbing predators, trees are not recommended for placing nestboxes.

1989 Nestbox Survey

The 1989 Nestbox Survey results are included in this Newsletter. A record 8,260 EABL young fledged from 11,426 nestboxes. I have heard from almost everyone who responded in 1988 and have received some new surveys.

This survey is an extremely important tool which enables us to monitor population trends from year to year. If you are aware of other nestbox trails in your area (even if only one box), please inform the trail operators of our survey and make sure they send in their surveys.

It is not necessary to count the eggs or to open the nestbox until the young have fledged if you prefer not to. You can record whether it was a successful nesting by observing the box from a distance with binoculars. The old nest should be cleaned out after fledging and this will also help you in determining success.

1990 Membership Fee Increase

We have had to increase the 1990 OEBS fee to \$8.00. The extra \$2.00 is needed to cover additional costs for mailing, photocopying, etc. As all work is volunteer, this money goes toward paying our costs and our expenses for the annual survey, the annual general meeting, education, etc.

Competition Between Tree Swallows and Eastern Bluebirds--Paired Nestboxes by W. F. Read.

Tree Swallows are a highly beneficial species to have on an EABL trail and are fully protected under the Migratory Bird Act of 1917.

They do, however, compete for available nestboxes since they are under the same pressures to find available nest cavities.

There has been much controversy concerning the pairing of nestboxes, i.e. putting two boxes close together so that Tree Swallows will nest in one box and defend the other against other Tree Swallows so that it will be left open for EABL's. I am personally not convinced that this is effective in achieving the desired result.

I have observed Tree Swallows nesting very close together. When there are many nestboxes in close proximity, this seems to increase the number of Tree Swallows competing for these nestboxes (personal observation, Leo Smith). This creates additional pressure for available cavities, as the Tree Swallows harass the EABL pair at a nestbox in large groups of six or more--the opposite of what was intended.

The 1987 and 1988 Ontario Nestbox Surveys ranked Tree Swallows "5" and "3" respectively as the Number One presumed cause of nest failure. Harassment by Tree Swallows may be a pressure that, combined with other factors--such as an inadequate food supply, mammalian predators, etc., that cause EABL's to abandon one nestbox and look for another. In my opinion, it is not a main factor in itself: EABL's are quite capable of defending a nestbox against Tree Swallows if they really want that nestbox. EABL's can be extremely aggressive when necessary.

In many cases where EABL's have been unsuccessful and Tree Swallows have taken over, we assume without examining other factors that the Tree Swallows were the cause of the nest failure--a kind of guilt by association. Let me explain.

I visited a nestbox early this year and found six EABL eggs. The two adults were nearby and the eggs were quite cold. (Incubation is sometimes delayed in extremely cold weather, but the female will usually keep the eggs from freezing.) On my next visit, Tree Swallows had built a nest over the EABL nest and eggs. We might assume that the Tree Swallows had forced the EABL's from the nestbox, but this was probably not the case: One of the adult EABL's may have been killed or may have died of natural causes, or possibly a mammalian predator had frightened the female off the nest. EABL's will readily leave a nestbox early in the nesting cycle, but the more time invested in the nesting, the less likely they are to leave; and if they have young, it is my experience that they will not leave unless the young are dead.

Remember that there are more Tree Swallows than EABL's and that Tree Swallows will quickly take over a nestbox that has been vacated, especially early in the nesting season.

At another location this spring, I found a Tree Swallow nest over an EABL nest with five dead young. It might be assumed that the Tree Swallows were responsible, but this would be highly unlikely; if the young were killed by House Sparrows, you would find severe peck marks on the tops of the heads. During the latter part of May and early part of June, most of Ontario experienced wet and unseasonably cold weather. This accounted for an unusually high nestling mortality and was probably the cause of this nest failure. Newly hatched young, three or four days old, usually survive because the female broods them and their food requirements are less. When young are eight or nine days old, they need enormous amounts of food to keep alive during extremely cold weather, as the female no longer broods them.

Your comments on the usefulness of paired nestboxes and the effects of Tree Swallow competition on EABL's would be appreciated.

Nestbox Placement by W. F. Read.

Proper nestbox location is the real key to being successful on a bluebird trail. Lawrence Zeleny, founder of the North American Bluebird Society, has stated that when bluebird trails are unsuccessful, the reason is probably poor nestbox location or failure to prevent House Sparrows from nesting. It is much better to build ten boxes and place them in suitable habitat than to build 1,000 boxes and put them up anywhere.

By far the most difficult aspect in setting up an EABL trail is finding the right location for your nestboxes. The easiest part is building the boxes.

Boxes that are not monitored and are placed in unsuitable locations actually do more harm than good. House Sparrows that use the boxes will fledge young that will look for boxes to nest in, making the situation worse for other native cavity nesting birds. Before you start setting up an EABL trail, give very careful thought to where you will place the boxes and how you will monitor them.

I would recommend for all nestbox operators to become members of NABS--the address is written below. Their 10th Anniversary Edition 1988 has compiled some of the best articles written about bluebirds over a ten-year period. I would recommend it highly.

North American Bluebird Society,
Box 6295, Silver Spring, Maryland, U.S.A., 20906-0295;
Membership: Regular--\$15.00 U.S.

Duck Nesting-Box Survey

The Long Point Bird Observatory, in cooperation with the Ministry of Natural Resources, has initiated a Duck Nesting-Box Survey. If you know of the success of other cavity nesters besides Eastern Bluebirds, contact the L.P.B.O. for an information package: Long Point Bird Observatory, P. O. Box 160, Port Rowan, Ontario, Canada, N0E 1M0.

ONTARIO - 1990 EASTERN BLUEBIRD NESTBOX SURVEY

NAME _____

ADDRESS _____

PHONE (____) _____

County where bluebird boxes are located: _____

If more than one county, number in each: _____

How many bluebird boxes did you monitor? _____ Total number of boxes on your trail: _____

How many times did you check your trail during the nesting season? _____

Number of boxes used successfully¹ by Eastern Bluebirds: _____

Number² of successful Eastern Bluebird nestings (broods): _____

Number of young EABL's fledged³: _____ Unsuccessful Eastern Bluebird nestings⁴: _____

¹ "Used successfully" means at least one bluebird was fledged. More than one nesting per box equals one box used successfully.

² Include all Eastern Bluebird nestings in each box; for example, two broods raised in one box equals two successful nestings.

³ A young bird is said to be fledged when it leaves the nestbox on its own power.

⁴ Include in this category if a nest was built or if eggs were laid but for some reason no Eastern Bluebirds fledged.

Blue White

Number of Eastern Bluebird eggs laid in boxes: _____

Number of EABL eggs known to have hatched: _____ Number of EABL eggs which did not hatch: _____

Number of eggs for which fate unknown: _____

Description of Box:

Top Opening: _____ Side Opening: _____ Front Opening: _____

Depth from bottom of hole to floor: _____ Inside dimensions: _____

Wood type and thickness: _____ Colour of box: _____

What sort of predator protection was used, if any? _____

Table 1. Summary of Eastern Bluebird breeding success in Ontario in 1989

County	No. of surveys	No. of boxes monitored	Boxes on trail	Boxes used by EABL	EABL nesting successful	EABL nesting unsuccessful	EABL eggs laid	House Wren	Other Species (Tree-Black-cap'd Swallow, Chickadee)	House Sparrow	EABL banded	TRSW banded	EABL in natural cavities	EABL pairs represented
Algoma	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Brant	1	1	1	1	2	5	769	53	338	4	10	0	0	1
Bruce	11	1006	1051	133	228	788	882	90	529	7	17	11	2	164
Dufferin	4	532	602	149	228	876	24	7	398	3	1	0	2	182
Durham	1	20	20	5	4	19	24	6	11	2	0	0	0	4
Elgin	6	215	215	36	73	267	255	3	46	2	171	1	1	56
Frontenac	1	10	10	3	3	9	15	0	1	0	0	0	0	2
Grey	16	1731	1733	73	239	997	83	90	529	7	17	1	1	208
Haldimand-Norfolk	12	250	263	73	86	344	277	7	27	3	2	1	1	72
Haliburton	1	22	22	0	0	0	5	6	11	0	0	0	0	0
Hallon	6	252	252	30	30	143	38	32	107	2	0	0	0	30
Hamilton-Wentworth	4	211	211	31	31	125	171	7	39	1	0	1	1	26
Hastings	3	62	62	8	8	34	33	10	34	1	0	0	0	7
Huron	4	206	216	15	30	95	63	15	0	3?	0	0	1	5
Kenora	3	58	58	4	3	25	15	0	32	0	0	0	1	5
Kent	1	20	20	5	5	20	20	0	0	0	0	0	0	5
Lennox-Addington	4	236	260	55	67	268	328	6	32	0	0	0	0	59
Lambton	2	101	178	24	23	116	167	24	24	0	0	2	2	24
Lanark	5	199	612	38	54	479	246	17	62	3	0	4	4	100
Leeds-Grenville	8	269	319	39	86	302	272	23	98	0	52	7	7	63
Lincoln	4	149	152	48	32	202	234	21	25	0	0	0	0	42
Manitowlin	1	4	4	1	1	4	5	0	0	0	0	0	0	1
Metro Toronto	1	10	10	1	1	5	9	16	11	0	1	1	1	1
Middlesex	2	38	38	7	7	23	5	0	47	0	0	1	1	5
Muskoka	4	43	93	7	6	16	28	3	4	0	1	0	0	3
Niagara	1	16	19	6	6	16	28	3	4	0	0	0	0	3
Nipissing	4	44	44	99	170	511	247	12	12	1	0	1	1	106
Northumberland	5	560	562	29	32	121	158	3	49	0	11	0	0	25
Ontario-Carlton	8	178	216	20	26	78	46	0	46	2	1	0	0	16
Oxford	6	305	313	20	26	78	46	0	46	2	1	0	0	16
Perry Sound	2	19	25	5	8	36	25	0	16	0	0	0	0	8
Peel	2	16	16	4	7	19	25	0	4	2	0	0	0	4
Perth	3	162	166	11	16	55	0	0	81	1	1	0	0	11
Peterborough	3	165	165	22	26	239	195	9	59	1	2	0	0	50
Prince Edward	1	2	2	0	0	0	0	2	0	0	0	0	0	0
Rainy River	3	1559	1860	224	236	941	859	29	404	29	2	108	1	196
Renfrew	3	180	182	41	51	168	199	2	41	3	3	0	3	35
Simcoe	1	287	305	32	32	126	155	1	91	1	0	0	0	26
Timiskaming	1	1036	1036	13	14	56	66	12	18	1	0	0	0	34
Thunder Bay	3	1036	1036	13	14	56	66	12	18	1	0	0	0	34
Victoria	2	72	130	55	66	249	350	1	43	0	4	253	4	52
Waterloo	9	697	329	10	10	42	61	7	29	0	1	945	3	61
Wellington	3	329	329	10	10	42	61	20	162	6	0	0	0	9
York	2	153	153	13	14	56	66	12	18	1	0	0	0	12
Total	175	11426	12622	1308	1985	8260	6405	430	2986	65	112	592	33	1723

Ontario Eastern Bluebird Nestbox Survey - 1989

Addendum to the 1989 Eastern Bluebird (EABL) Ontario Nestbox Survey Sheet issued with the Fall 1990 OEBS Newsletter.

Statistical information in this summary sheet was taken directly from the 1989 EABL nestbox survey forms received by the author.

Estimates were made for EABL fledged young if they were not included on the survey forms. For example, if a respondent indicated six successful nestings, but made no estimate of total fledged young, I would estimate (4 x 6) or 24 fledged young EABL's. Estimates were not made in other cases. For example, if egg totals were not included on nestbox survey forms, then no estimate would be made on the respondents' survey forms. This is why the egg total is actually lower than the EABL fledged young total. The egg total would probably be around 12,500 if all trail operators counted and recorded on their survey sheets the eggs laid. (See article on nestbox monitoring and banding in the Spring 1990 OEBS Newsletter.) In order to analyze data in a statistical manner, individual survey forms would have to be examined.

The information collected and analyzed on the summary sheets is a good indicator of population changes or trends from year to year. The survey started in 1987 and will continue as one of the major objectives of the OEBS.

Ontario Eastern Bluebird Nestbox Survey - 1989

W.F. Read

The Eastern Bluebird has increased substantially in Ontario during the past decade (1980-1990) and may be at a higher population level than at any time since the late 40's or early 50's. (Discussions with senior naturalists.)

This increase can, in my opinion, be attributed to a number of factors:

- 1) the increase in well managed nestbox trails in all areas of Ontario by dedicated blue birders.
- 2) an absence of abnormally cold wet weather during the breeding season.
- 3) an absence of abnormally cold weather in their wintering areas in the Eastern U.S.
- 4) a decline in the population of House Sparrows' which can be attributed to changing farming practices in Ontario over the past 40 years has lessened competition in rural areas between House Sparrows and Eastern Bluebirds.
- 5) the adaptability and resilience of the Eastern Bluebird.
- 6) the formation of organizations which promote Bluebird conservation in North America. In particular, the NABS and in Ontario the OEBS.

Well managed predator proof nestbox trails have allowed EABL's to fledge more young than is necessary to sustain the population at its current level and these additional birds have enabled the population to increase from year to year. This has been achieved because of the dedication and perseverance of long time trail operators over many years. Proper nestbox design and site location along with continual monitoring to determine success rates and discourage nestbox competitors are important ingredients on a nestbox trail.

Several programs in Ontario have been undertaken to establish EABL nestbox trails. Unfortunately, with many of these projects the boxes were placed in unsuitable locations and monitoring was not carried out to determine success rates or deter House Sparrows from nesting in them. This kind of trail is unproductive and even detrimental to other native cavity nesters.

Cold wet weather during the early part of the breeding season can result in high nest mortality. This happened in 1984 and again in 1990.

Larger populations are less affected by natural weather related mortality and quickly rebound. Smaller populations take longer to recover.

Abnormally cold weather in their wintering areas may also cause a population decline. The winters of 1977 and 1978 were especially harsh and did have a dramatic effect on the Ontario population.

House sparrows have declined in Ontario over the past 40 years because of changing Agricultural practices. Around the turn of the century and into the early part of the 20th century, House Sparrows were abundant. Transportation was by horse and fields were worked by horse or oxen (approximately 80% of Ontario residents were on the farm) which created optimum conditions for House Sparrows. Eastern Bluebirds were also common to abundant at this time. There are several reasons for this; starlings had not spread from urban areas to rural areas in the numbers of today leaving many cavities still available for EABL's. Also, agricultural Ontario provided plenty of cavities in fence rows which were made of cedar posts, split rail fences and uprooted tree stumps. With changing fencing

practices., (T-bars and barbed wire began replacing some of the wood fences) and with starlings increasing rapidly and beginning to occupy rural areas in greater numbers, EABL's began to decline. The House Sparrows and Bluebirds were forced to compete for fewer and fewer available cavities. EABL's are very aggressive but do not fare well against House Sparrows and in most cases are driven off or end up being killed by the non-native male House Sparrow. House Sparrows have also declined during this period but their demise can probably be correlated with the decline in the number of horses in Ontario.

Eastern Bluebirds have proved very adaptable to man-made boxes and will disperse widely. They have an extensive geographical distribution at present in Ontario.

The 1989 totals indicate that 8,260 EABL's fledged from nestboxes, a considerable increase from 1988's total of 6,352. This total represents an increase of 30% in the number of fledged young from 1988. This can be attributed to more reports received and greater success rates on trails. A total of 176 reports were analyzed from 44 counties.

The number of monitored nestboxes reported increased substantially from 8,809 to 11,426, an increase of 29.7%. Fledged EABL's per nestbox monitored has remained the same at 0.72% in both 1988 and 1989.

The 1989 nestbox survey represents a total of 1,723 EABL pairs. This figure was obtained by using an average of 4.8³ fledged young per EABL pair in Ontario. Assuming 85% of trail operators responded to the survey, the actual population as represented by nestboxes could be as high as 2,027 pairs.

The increase in well managed nestbox trails throughout eastern North America will continue to be an important factor in the EABL's recovery.

Eastern Bluebirds have shown preferences for clear cut areas and forest fire burns in Boreal Forest areas of Ontario. One naturalist reported to me that in a burned out area in Rainy River District near the Minnesota border, the EABL was the most common passerine.

In pre-agricultural Ontario when much of the province was covered by Climax Forest the EABL would probably have been classified as rare.

Based on abundance estimates only, from the Ontario Breeding Bird Atlas (Cadman et al, 1987), a population range from 1,063 to 7,094 pairs of EABL's is possible in Ontario. Ontario's population will be at the upper end of this abundance estimate and may at present be considered uncommon rather than rare.

Population monitoring such as the OEBS nestbox survey will continue to be an important tool in assessing the status of the EABL in Ontario.

Literature Cited:

Cadman, M.D., P.F.J. Eagles and F.M. Helleiner (Eds). 1987. Atlas of breeding birds of Ontario. Univ. Waterloo Press, Waterloo.

1. OEBS Ontario Eastern Bluebird Society, 165 Green Valley Drive, Unit 2, Kitchener, Ontario Canada, N2P 1K3
2. NABS North American Bluebird Society, Box 6295, Silver Spring, MD, 20906-0295, USA
3. 4.8 fledged young per EABL pair average obtained by analyzing data from trail information (author).