

Ontario Eastern Bluebird Society 1994 Fall Newsletter

Editor: Bill Read
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The OEBS Annual general meeting has been set for **Saturday, March 25, 1995** at the Royal Botanical Gardens in Burlington.¹

Welcome to the 1994 OEBS Fall Newsletter!

The 1994 nesting season was closer to normal and much better than 1993. Early reports indicate fewer returning EABL pairs but fewer nesting failures resulting in more fledged young than 1993. On my trail 67.4% of eggs layed resulted in fledged young in 1994 whereas in 1993 only 52.7% of eggs layed produced fledged young.

Mean Temperature °C		
	Actual	Normal
January 1994	-13.2	-7.3
February 1994	-9.6	-6.8
March 1994	-2.0	-1.5
April 1994	6.7	5.8
May 1994	10.9	12.5
June 1994	18.7	17
July 1994	20.3	19.9
August 1994	17.6	18.7
September 1994	14.9	14.3

The nesting season didn't start out quite that way. Early nestings were progressing quite nicely up until May 26th. There was considerable nestling mortality on May 26/27. May 26 was very cold and windy with 43 mm of rain, making it very difficult for adults to find enough insects to feed their young and themselves. In my field journal I recorded the following for May 26/94:

Morning: I'm wearing a toque, vest and patagonia jacket; wind out of the west - very cold.

3:00 p.m.: Bitterly cold with rain and strong west wind; probably 6-8° C ; started raining hard again.

This very cold day was followed by an even colder night. The Mt. Hope airport south of Hamilton announced a temperature of -6° C for May 26/27 when the wind chill factor was included. On the morning of May 27 at 6:30 a.m. I had to scrape off a thick coating of ice from my car windows before starting on my bluebird and tree swallow work for the Canadian Wildlife Service. Most of the season's EABL nestling mortality occurred during these 2 days. May 1994's mean temperature of 10.9° C was 1.6° C lower than the normal of 12.5° C. Temperatures in June and July were warmer than average making for ideal Bluebird weather. After May I had only one unsuccessful EABL nesting and that was a box that was hit by the grass mower breaking the eggs inside.

CWS Orchard Trail

	Eggs Layed	Fledged Young	Success Rate
1993	372	196	52.7%
1994	383	258	67.4%

Both figures include several instances of broken eggs caused when the grass mower hit the box. For 1994, if this is omitted the success rate rises to 69%.

¹Mark this date on your calendar. This date was chosen so as not to conflict with the LPBO Spring Meeting which will be April 1, 1995. We plan to focus on other cavity nesters and will be planning the agenda at an upcoming Board Meeting on October 1, 1994.

Tubex Tree Shelters - Concerns

In the OEBS Spring 1994 Newsletter I mentioned concerns about EABL's entering the tubex tree shelters and becoming trapped inside. Bluebirds continually examine cavities for potential nesting sites during the nesting season while on migration and on their wintering areas. This problem can be solved by placing a mesh net over the tubex but this mesh net is not currently available in Canada. I also requested OEBS members to investigate tubex tree shelters to determine the extent of the problem and said that I would reprint their results in the Fall Newsletter. Unfortunately no examinations of tree shelter plantations were made. If at some future date this information becomes available I will reprint the results in the newsletter. I wrote Tubex in England with my concerns and received the following reply:

Dear Mr. Read

Please be assured that we at Tubex share your concern about any threat to birds or other wildlife that may be posed by treeshelters.

When this possibility was first raised here in Britain, the Royal Society for the Protection of Birds (Europe's biggest conservation body) organised a nationwide survey of treeshelters assisted by the Forestry Commission. At the end of the project they concluded that any risks were far outweighed by the advantages that Tubex offer to birds by encouraging tree planting and aiding positive habitat management.

Nonetheless we agree that if any danger exists we should do our best to minimise it. We have reasoned that birds will not dive from the sky into a treeshelter, therefore if they are going to enter a shelter they must perch on the rim first. So if we can discourage perching we can prevent access to the shelter.

For this reason the mesh net we provide does not close over the top of the tube but instead slides over the rim and stands about an inch proud, presenting an unsteady edge that birds will not land on.

I am arranging for a few samples of this net to be sent to you and am copying this letter to the St George Company.

Yours sincerely

*Mark Potter
Forestry Director*

To date I have not been sent the samples of mesh nets but have received a letter from the St George Company Limited stating that they have found a source of mesh to place over the top of the tree shelters to prevent birds getting in. The price is 13 cents each F.O.B. Paris. The address to order them is:

The St George Company Limited
PO Box 430
20 Consolidated Dr
PARIS ON N3L 3T5

Editor's Note: The tree shelters are only a problem when first installed. When the seedling grows to the rim of the tree shelter or slightly below the problem disappears. Possibly these mesh nets could be returned to the distributor towards a credit and be used by someone else.

How much does an Eastern Bluebird weigh?

During banding over the course of the 1994 nesting season, I weighed 48 adult EABLs, 21 males and 27 females.

	Sample size	Range	Average Weight
Males	21	26.70 -31.65 grams	29.64 grams
Females	27	25.95 - 33.55 grams	30.12 grams

These birds were captured in apple orchards as part of a Canadian Wildlife Service study to examine reproductive success in orchards. Females were .48 grams heavier on average and exhibited a larger degree of variation, 7.6 grams versus 4.95 grams for males. John K. Terres in the Audubon Encyclopedia of North American Birds gives the following weights: in Connecticut, Apr adult males (10) 27.6 - 31.6 gr, females (10) 27.3 - 34 gr (Wetherbee, 1934) or about $1\frac{1}{4}$ oz.

Ontario Nest Records Scheme (ONRS)

The ONRS at the close of 1993 has been operative for 38 nesting seasons. The program is based in the Department of Ornithology, Royal Ontario Museum (ROM), Toronto, Ontario, where the nest record cards are kept on file, and where computer storage is in progress. The ONRS is essentially a collection of nest record cards, each detailing one or more visits to a nesting colony, an occupied birds nest or a nest under active construction in Ontario. You can be a field contributor by filling in the enclosed card and sending it to the address below. Many OEBS members are contributors. Leo Smith, who operates an EABL trail in the Caledon area, sent in 89 nest record cards in 1993. Norm Shantz, who has had a successful EABL trail for over 30 years near Kitchener, sent in 26 cards.

Card Totals Per Species

Species	Pre 1992	1992	1993
1 Red-winged Blackbird	7456	16	23
2 American Robin	6974	59	51
3 Tree Swallow	5714	67	37
4 Eastern Bluebird	5410	176	118
5 Barn Swallow	4605	20	8
6 Brown Headed Cowbird	3239	22	11
7 European Starling	2944	9	9
8 Common Grackle	2733	7	7
9 Song Sparrow	2070	10	12
10 Mourning Dove	1992	13	13
11 Yellow Warbler	1869	9	18
12 Eastern Phoebe	1844	26	24/26
13 House Wren	1742	18	10

The 1992 OEBS Nestbox Report recorded 2065 attempted nestings (1574 successful and 491 unsuccessful) whereas the ONRS in 1992 only received 176 EABL nest record cards. This represents 1889 potential EABL nest record cards that could have been sent in to the ONRS in 1992. For tree swallows the disparity is even greater with 1485² nestings reported to OEBS but only 67 nest record cards sent in. The ONRS would also like information on less common species.

² Because of very heavy Tree Swallow nest mortality in 1992, many unsuccessful nestings were not recorded - on the OEBS forms the number of attempted nestings probably was closer to 3000. For this reason the 1993 nestbox report had an extra column for unsuccessful TRES nestings.

All completed cards and requests for blank cards and copies of the report should be sent to:

Ontario Nest Records' Scheme
 Department of Ornithology
 Royal Ontario Museum
 100 Queen's Park Crescent
 TORONTO ON M5S 2C6

OEBS Board of Directors Meeting

Our first meeting will take place on Saturday, October 1, 1994. If any members have concerns that they would like addressed at these meetings, please send them to me so I can put them on the agenda.

Canadian Wildlife Service

Technical Report Series No 202, 83 pages spiral bound

Bluebird Nestbox Trails in Ontario and their usefulness for Bio Effects Monitoring of Agricultural Chemicals is now available. Copies may be obtained from:

Canadian Wildlife Service
 867 Lakeshore Road
 Box 5050
 BURLINGTON ON L7R 4A6

In the fall of 1987 your editor, Bill Read, sent out survey forms to bluebirders across Ontario in an attempt to monitor reproductive success and to determine if there was enough interest to form an Ontario Bluebird Society. Coincidentally, however, in the fall of 1987, McNicholl and Weseloh of the CWS attempted to initiate a similar survey.

It was decided that instead of initiating another survey that the results that I gathered would be used. The above report represents those findings. The report includes lists of all operators in 1987 and 3 maps indicating their location in Ontario.

Birdathon

Thanks again to Rick Ryan, one half of our membership secretary duo, our official Baillee Birdathon representative and to all our OEBS members who sponsored him. Rick observed 64 species on May 14th and 15th and raised much needed money for both the OEBS and the Baillee Fund.

1993 Nestbox Survey

The 1993 Nestbox Survey results and the 1994 Survey form are included with this newsletter. The names of all participants were listed by county on the 1993 Nestbox Report. If you know someone with a nestbox trail whose name was not listed, please photocopy a 1993 survey form for them and send in their name to me. Make sure to record the number of breeding pairs returning to your trail. **This survey can only be successful if the maximum number of trail operators report their results from year to year.** It is not necessary to provide detailed information to be useful to OEBS. The number of boxes, number of returning pairs of EABLs and number of successful nestings is sufficient.

North American Bluebird Society

I would recommend for all nestbox operators to become members of NABS (address below). Their Tenth Anniversary Edition 1988, has compiled some of the best articles written about Bluebirds over a ten-year period. I would recommend it highly, as I would recommend a subscription to the NABS.

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

The following article, *For the Love of Feathers* by Dr. David Winkler is reprinted from the spring, 1993 issue of *Living Bird* (quarterly journal of the Cornell Laboratory of Ornithology).

Dr. Winkler, who has been studying Tree Swallows since 1985, often witnessed the great "feather fights" that swallows engage in during nest building. This promoted him to investigate why feathers are such a valuable commodity.

The first phase of his study involved counting the feathers found in swallow nests at different stages in the birds' breeding cycle, then comparing the number of feathers in each nest with reproductive success. He found that chicks in nests lined with more feathers fledged earlier. Superficially, this seemed to justify the swallows' fondness for feathers, since it appeared that they decreased the nestling's period of dependence on parental care in the nest. But there still was the possibility that the earlier fledging of those young was due to quality parenting; good parents would be more efficient at both gathering feathers and at gathering food for their brood.

To further test the role of feathers, Dr. Winkler and his colleagues reduced the number of feathers in selected nests. If the only reason that nests with more feathers have a shorter nestling phase is because they are attended by better parents, then reducing the number of feathers would produce no change in chick growth rates. Conversely, if the number of feathers did directly affect growth and rates and fledging periods, then reducing the number of feathers would slow down growth rates no matter how much food the parents brought in.

A control group and a removal group were set up. Both groups were as identical as possible to each other in all aspects of their breeding biologies, i.e. same number of

yearling females, same mean egg and clutch sizes, and equal numbers of early and late-nesting pairs.

Nests were visited each day beginning with the day after the last egg was laid. Feathers were counted in both nests, and removed in "removal" nests. Interestingly, it was observed that most swallows start placing feathers as soon as the bulk of the grass nest is complete. By the time the first egg is laid, a nest usually contains about five feathers. More feathers are added throughout the remainder of egg-laying and incubation, but relatively few are added after the chicks hatch.

Before the data were analysed, all nests that had inattentive fathers (fathers that could not be captured in a nest because they did not bring food to the young) were eliminated from the data base.

Nestling weight, wing length and leg length of the chicks at twelve days of age in both groups were compared and the results were clear: chicks in the feather removal group had significantly shorter wings and legs, and weighed less than chicks in the control group. These observations show that feathers in the nest lining have a significant effect on chick development.

The next question Dr. Winkler attempted to answer was exactly why feathers had such a significant effect on chick growth. The most obvious answer was that they provide increased insulation. Feathers are inserted in the nest cup with their shafts pointed down and the broad vanes projected up and over the brood in the nest cup. In a well-feathered nest, the young are sheltered by a uniform canopy of feathers, reducing the rate of nest cooling

considerably. By expending less energy to maintain their body heat, they devote more energy to growth.

Dr. Winkler's experiment showed that feather removal did not affect chick survival rates, although conditions during the year that the experiment was conducted were favourable. The presence of a good feather lining in a nest does not necessarily mean that chicks in a well-feathered nest always have a better survival rate than birds that are raised without such a nest lining. A feather lining is important because it allows the chicks to grow faster, thus shortening the time that they are vulnerable to nest predators. It also helps them cope during inclement weather conditions, such as those experienced across the prairies in June, 1993.

Cold, rainy weather is a fatal combination for all aerial insect-eating birds. Cold weather means that they burn excessive amounts of energy just to maintain their body temperatures. At this time of high energy demand, the insects they rely on for food cease flying. Faced with this double bind, parents are sometimes forced to abandon their young and try to find food for themselves. The widespread mortality of Tree Swallows in Alberta during 1993 was a sobering example of just how difficult life can be for these birds. Next summer, when you're out on your bluebird trail, why not do what Charlie Ellis did for his Tree Swallows....pack a few feathers along and share them. Not only will you enjoy the excitement your gifts will bring, you will have the satisfaction of knowing that you are making life just a little easier for these energetic and entertaining birds.

Banding Retraps - EABL

In 1991 I banded 5 young EABL's at the Vanymeren Orchard, all from the same nestbox. In 1992 and 1993 I retrapped all five of these young, 3 at Vanymeren and 2 at Brubacher³.

I did not encounter any of these birds in 1994 but did retrap my oldest EABL Female 1391-87455. She was banded as an AHY Female June 5, 1989 at the Fisher Apple Orchard. Below is the nesting record for this bird. I'm sure if she is still alive in 1995 I will again retrap her either at Braccio or Fisher.

³ *Banding Recoveries Update* OEBS FALL 1993 Newsletter P3-4. *Some Interesting Retraps* Fall 1992 OEBS Newsletter P4.

F1391-87455 Banded June 5, 1989 at Fisher as AHY (After Hatch Year)

Retrapped	Orchard	No. of Nestings	Eggs	Fledged Young	Age
1990	Braccio	2	9	8	at least 3 yrs
1993	Fisher	2	9	9	at least 6 yrs
1994	Braccio	2	9	9	at least 7 yrs

Greasing Poles to Prevent Raccoon Predation

Nest failures caused by raccoons continue to be a major problem in most years and usually result in the number one presumed cause of nest failures on most nestbox surveys (except in years where weather is the number one presumed cause of nest failures), raccoons then rank second. Failures caused by raccoons can be more devastating than weather related failures. If the failure is caused by weather, the EABL pair can renest but raccoons very often kill the incubating female, making renesting impossible.

Nest boxes mounted on posts can be especially vulnerable and some bluebirders now recommend moving the boxes every two or three years to prevent predators such as raccoons from becoming familiar with their location. Once raccoons learn the source of a meal they will revisit the box on a regular basis. If predation occurs in a newly erected nestbox that box should be moved immediately to a new location.

Since the idea behind bluebirding is to provide a safe, predator-proof nestbox for EABL's, many nestbox operators are now placing boxes on either greased T-bars or metal poles with special raccoon cone guards. A thorough application of grease on a T-bar or pole has proven to be almost 100% effective in keeping raccoons from climbing them. One application in the spring should last for the entire nesting season and if applied properly will cause very little pollution at the T-bar or pole as the grease does not slide down. Some grease may have to be added the next year and any excess grease can be scraped back into the original container, mixed up and reused again.

Editor's Note: NESTBOX PLACEMENT:

I initially recommended placing nestboxes on fence posts (FON Supplement 1989). I have changed my opinion somewhat on this because of an increase in the raccoon population in Ontario (a major predator of EABL's that use nestboxes). I now recommend placement on a T-bar that is greased or a metal pole with a special raccoon cone guard. **Brushy fence rows are the worst possible place to put a bluebird box because they are highways for EABL predators such as raccoons, red squirrels, grey squirrels, deer mice, weasels, snakes and possibly opossum.**

1994 OEBS Conference a Great Success!

Over 60 people attended the 1994 conference at the Royal Botanical Gardens in Burlington. It was a great opportunity to discuss bluebirding with other members and to listen to some very interesting talks on many aspects of cavity nesting birds.

A special thanks to our speakers - Ted Cheskey on Black Capped Chickadee ecology, Bruce Duncan on opossums and Kevin Berner who gave a review of field tests of nestbox designs and predator proofing of nestboxes. Kevin also attended our 1990 conference and each time drove all the way from Cobleskill, New York.

Many members donated prizes for the bucket raffle (and the proceeds helped to offset the cost of the conference). Thanks to Marg and Art Rusnell, Cat Calendar, photographs and prints.; Rick Ryan, bird guide; Robert Burton, book and nestbox.; Kevin Berner, sheet of 3¢ New York EABL stamps (EABL - the state bird of New York); Sylvia Van Walsum, macrame bluebird and cardinal and bluebird postcard; Tom Hunt, nestbox; Bill Brunsveld (Grand Valley Fortifiers Cambridge) Glen Loathes print cedar wax wings and plastic goldfinch; Wordsworth Books \$10 gift certificate; George Coker 11 nestboxes (2 peterson, 9 regular which raised \$54.) My apologies if I have forgotten anyone.

This year's conference has been set for Saturday, March 25, 1995 at the Royal Botanical Gardens in Burlington. Make sure to mark this date on your calendar. This date was chosen so as not to conflict with the April 1, 1995 LPBO Annual Spring Conference.