



Ontario Eastern Bluebird Society

2013 Fall Newsletter ~ Editor Bill Read

info@billreadsbooks.com

Welcome to the fall 2013 edition of the OEBS newsletter. Overall 2013 was a good one for bluebirders in the Southern part of Ontario. Nest box reports were mixed in 2013 with most reporting an above average year and very few with a poor to average year. March 2013 was 0.8 degrees below the long term average, a far cry from March 2012 when we set the all-time record at 7.6 degrees above average (eclipsing 1945's 6.9 Celsius above average). As result of the warm weather in March 2012 many bluebirds had record early egg dates.

April 2013 was 0.8 degrees Celsius below average followed by May that was 1.3 degrees hotter for the month. The first part of May was warm up until the 10th when it turned colder with night time temperatures around 0 on the 13th and 14th of May. This caused very little nestling mortality as most bluebirds were on eggs or were brooding young. It then warmed up and turned cold again on the 25, 26 and 27th with night time temperatures in the 0-2 degree range. This resulted in some mortality of young that were not fully feathered and were too old to be brooded by the female. Compared to some years when May nestling mortality was high this was a good year. **Weather is the number one factor affecting both adult and nestling mortality** and this is why I include it in each newsletter. Mark Twain once commented "everybody talks about the weather but nobody does anything about it". When it does turn cold there is not much we can do except get the meal worm feeder going and make sure all nest boxes are completely sealed except for the nest hole to prevent those cold May winds from blowing in the box. Winds in May usually come from the north west or east and this is why it is important to have the nest hole facing south to south east.

The AGM is set for Saturday, March 22, 2014 at the Royal Botanical Gardens in Burlington. I hope to see everyone there.

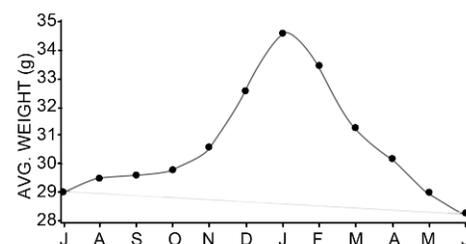
2013 Nest Box Reports These reports will be included in the Spring 2014 newsletter so make sure you get them to me in time. The form to fill out can be

downloaded from our website. One is included with this newsletter.

How Much Does an Eastern Bluebird Weight?

That depends on the time of year. Dr David Pitts from the University of Tennessee has done extensive work on bluebird weights especially in winter. DR Pitts was intrigued by a winter bluebird that had been accidentally hit by a car and weighted 40.5 grams. This is well above the summer weight of 30 -31 grams. (There are 454 grams in a pound and 28.4 grams in an ounce.) To see if this was an anomaly or if Tennessee bluebirds really do gain weight in winter he devised a set up for trapping and weighting them. He also studied their movements and winter roosts. Dr Pitts set up feeding boxes in locations where bluebirds spent the winter. Each box had a trap that could be activated when the bluebird entered. Each box was supplied with meal worms on a daily basis and the trap was left open except when trapping so the bluebirds would treat it as a food source the rest of the time. From 1985-1986 to 1988-1989 a total of 450 bluebirds were weighted in winter and during the breeding season. From March into December their average weight was approximately 30 grams. They gained weight in December, reached a peak body weight in January, maintained this weight through February, and then quickly lost weight in March. (*Studying Eastern Bluebirds—a Biologists Report and Reflections* T.David Pitts, Winter Weight, page 130-139.)

Copies of this book will be available at our March 22 meeting at RBG for \$25 each.



Average Monthly Weights of Bluebirds

One bluebird, Male 381 was recaptured and weighted 19 times from 1986-1988. His lowest weight was 28.5 grams on June 2, 1986 and his heaviest weight was 41.5 grams on January 20, 1988. During January and February his weight was consistently in the 35 to 42 gram range, but by March 1 his weight had dropped to near 30 grams where it remained, with small fluctuations, through the nesting season and into December where he began gaining weight. Dr Pitts determined that this weight gain was primarily due to the accumulation of fat. This could be beneficial as a food source and as an insulator against the cold. It could also make the bird heavier and more prone to being captured by a predator. What triggers this weight gain, Dr Pitts put forward a number of possibilities that might account for this accumulation of fat. These include environmental stimuli, such as decreasing daylight and colder temperatures or a biological clock that triggers weight gain at a particular time of year regardless of day length or temperature.

Do Bluebirds That Over Winter in Ontario Gain Weight?

Is this in response to the climate as it is with Tennessee bluebirds? I would like to find out if anyone in Southern Ontario has bluebirds visiting a feeder over the winter and would like to take part in a study to determine their winter weight. I can set up the feeder traps and could provide the meal worms. If interested I can be contacted at-Phone 1-519-620-0744 or email at info@billreadsbooks.com

Summer Weights of Ontario Eastern Bluebirds ~ Bill Read

In 1995 and 2013 I recorded the weights of 105 Eastern Bluebirds, (53 Female and 52 Male). The females in both years weighted about .5 of a gram heavier than the males. This may be because most females gain weight while they incubate and if recaptured right at the end of incubation will be heavier on average than the males. In 2013 females ranged from 27.5 to 34.2 grams, males from 28.8 to 33.4 grams. In 1995 females ranged from 27.45 grams to 33.95 grams and males from 27.7 to 33.75 grams.



Eastern Bluebirds Audubon Elephant Folio Main Reference library Toronto

SUMMER BLUEBIRD WEIGHTS

1995		2013	
35 Females	1073.55 g = 30.67 g	18 Females	559.08g = 31.08 g
24 Males	727.25 g = 30.30 g	28 Males	855.20 g = 30.54 g
1995 - 2013 COMBINED			
Females		1632.63 ÷ 53 = 30.80 g	
Males		1582.45 ÷ 52 = 30.43 g	

At **Ruthven Park** near Cayuga, Ontario 16 Eastern Bluebirds were weighted in 2012. The 7 females averaged 31.71 grams . This included 2 females that were banded on May 2 and 3, 2012 and weighted 35.4 and 35.6 g. I suspect that they were weighted right at the end of incubation. The 9 males averaged 31.18 grams and included 1 male that weighted 36.9 grams on November 6, 2012. Is this weight the start of a winter weight gain that will exceed 40 grams?

DATE	SEX	WEIGHT (g)	WEIGHT (g)
Nov 6 2012	M		36.9
Oct 18 2012	F	27.3	
Oct 1 2012	M		33.3
Sept 30 2012	F	32.0	
Sept 28 2012	F	30.8	
Sept 28 2012	F	29.5	
Sept 26 2012	M		31.3
Aug 9 2012	M		25.2
Aug 9 2012	M		29.2
Aug 9 2012	M		29.7
May 27 2012	M		30.1
May 22 2012	M		32.6
May 23 2012	M		32.4
May 5 2012	F	31.4	
May 2 2012	F	35.4	
May 3 2012	F	35.6	
		222.0	280.7
		31.71	31.18

Ruthven Park Bluebird Weights-2012

What Strategies Do Birds Use to Survive Winter?

The most common strategy is to migrate and avoid winter all together but this involves risks especially if your migration is over a long period. Other strategies include caching of food, enlarging one's territory and thus increasing the available food supply throughout the winter; another strategy is joining others in large flocks to make food location and protection from predators more efficient. In the case of bluebirds in Tennessee they put on extra fat to get them through the cold months of January and February.

Ontario bluebirds can be considered short distance migrants. They have a very flexible approach to migration and move only as far south as needed for food and shelter. Bluebirds are late migrants, which is an advantage as most of the bird eating raptors like Merlins and Sharp Shinned Hawks have already moved through.

Bluebirds in Ontario feed primarily on insects but will feed heavily on small fruits and berries when available. Late broods usually are fed berries as well as insects. This is evident in fecal sacs produced by young late in the season that are purple in colour. Ontario blue-

birds feed heavily on small fruits' especially Staghorn Sumac during the winter. This is supplemented by winter active insects. Studies indicate they must have some animal protein in their diet. Three years ago a female Mountain Bluebird overwintered north of Hamilton. It was seen by many. To my amazement I watched it capture 2 inch cutworms in the middle of January from a field where it was feeding. Cutworms overwinter in the larval stage and are active during the warmer parts of winter.

Do Eastern Bluebirds Migrate to the Same Locations as in the Past?

It has only been since around 1980 that bluebirds started overwintering on a regular basis in the southern parts of Ontario. Most have been migratory and band recovery records indicate they migrate to the southern states. There are encounters of Ontario birds in Kentucky, North Carolina, Georgia and Northern Florida. (Canadian Atlas of Bird Banding) Elizabeth Kellog recently reported to me a recovery for an Eastern Bluebird in Goldsboro, North Carolina on February 19, 2011. Elizabeth banded this bird as a nestling on June 13, 2010 on the Alderville First Nation Nature Reserve located south of Rice Lake near the town of Roseneath. This gives credence to the fact that this population in Eastern Ontario still undertakes these long migrations. These migration destinations are fairly warm which



Tom Thomas
Mountain Bluebird feeding on a Cutworm in January 2011 near Guelph, ON) I have watched Eastern Bluebirds capture insects in winter. There are good numbers of winter active insects in sheltered areas that are exposed to the heat of the sun. Small black spiders are common and active.

would not require an accumulation of fat to help them survive the winter. Bluebirds in Tennessee are year round residents and this fat accumulation is something that has probably evolved over a long period of time. Bluebirds that were able to survive a Tennessee winter may have passed this ability to store fat in their genetic makeup on to the next generation. Well distributed numbers of bluebirds are recorded on Ontario Christmas bird counts mostly in the Carolinian areas above lakes Erie and Ontario. In 2002, 779 Eastern Bluebirds were counted on Ontario Christmas bird counts. Numbers on Christmas bird counts have stayed fairly consistent and widely distributed since then at around 500 each year. In most years they are able to survive our winters which are much colder than Tennessee's. In Ontario they will use nest boxes to roost in over the winter when it gets really cold. Their main food in the winter is the Staghorn Sumac supplemented by winter active insects. In some years they do not survive, the ice storm in the spring of 2003 was one such year. A thick coating of ice covered the ground up to April 8 that year. At this time of year most of the fruit and small berries are gone and they must rely more on insects. There were many reports of dead adults, Don Wills found 12 dead adults in his nest boxes near Caledonia, Bill Read found three dead in his boxes near St. George. There were other reports of bluebirds near nest boxes before the storm that were not present after the storm. This weather event also affected bluebirds that had just returned from migration.

If some bluebirds have changed their migration destination by remaining in Ontario do the others that leave Ontario go as far as they once did? Very high Christmas bird counts of bluebirds in Ohio, Pennsylvania and New York may give us a clue that at least some of the Southern Ontario population is not going as far as it once did. I hope in the future to use geo locators to give us some idea of how far they now go. The technology for these devices is continually getting better, less expensive and smaller.

Ontario is a huge province and bluebirds use different migration routes depending on where they nest. Bluebirds in the northwestern part of Ontario will follow the north west shore of Lake Superior as they migrate into the United States. The Thunder Cape Bird Banding Observatory on the north shore of Lake Superior near Thunder Bay has recorded as many as 800 bluebirds migrating in some falls. These bluebirds are coming from areas well above Lake Superior in the bo-

real forest region where they nest in forest burn areas and clear cuts. Others will cross over at White fish point at the extreme eastern end of Lake Superior and make their way through Michigan as they travel south. Bluebirds in central Ontario and areas further north once they come in contact with Lake Ontario either migrate East and cross over in the Kingston area or they travel west along the north shores of Lakes Ontario and Erie and cross over near the west end of Lake Erie into the United States. Wind direction and speed may influence which direction they take. The largest number of migrating Eastern Bluebirds recorded in one day was 825 at Holiday Beach near Windsor on October 27, 1991.

North American Bluebird Society Fact Sheets

NABS has produced a number of fact sheets on monitoring, HOSP control etc. They can be downloaded from the NABS website as PDFs. I have included the one on **Monitoring Bluebird Nest Boxes** in the fall 2013 newsletter. The only concern I have is the picture on the front of this fact sheet that shows a nest box with a wooden predator guard attached. They are ineffective at reducing raccoon predation and hinder the bluebirds ability to enter the nest box. Do not use them. Proper predator protection makes them unnecessary. **The Ontario Eastern Bluebird Society will not endorse any nest box that does not have proper predator protection.**

NABS Membership

The OEBS is an affiliate member of the North American Bluebird Society. NABS is pleased to extend a special Affiliate Plus (A+) membership rate of \$15 USD per year that will see you receive 4 issues of the journal *Bluebird*. It is a very informative journal and I recommend taking out a membership.

Standardized Nest Box

At our last executive meeting on September 20th we voted to use the **Dorrie** nest box as the standard nest box for OEBS. Proper predator protection must be used with this nest box. This does not mean that other boxes are not adequate, we just felt that if OEBS is asked about what nest box to use we would recommend this one. All the information to build it can be downloaded from our website. The plans call for 5/8 exterior spruce plywood and 12 nest boxes can be built from 1 sheet of plywood.