



2014 ANNUAL REPORT

By Amélie Roberto-Charron

Editor

February 2014

Acknowledgements

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We appreciate all those that attended Steaks and Saw-whets and Big Birding Breakfast and all those that volunteered. Specifically, thank you to Claude Roberto for providing the wonderful breakfast.

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2014 Audited Financial Report



**Beaverhill Bird Observatory
Spring Report 2014**

By

Kevin Methuen

July 2014

Introduction

We had a tremendous spring at the BBO!! Our team included Amelie Roberto-Charron, Jerry Gordy and myself, Kevin Methuen. We set up nets on May 1st but only had one partial day of banding in the first week of May. This was due to persistent snow and below zero mornings.

Despite the adverse weather to start the field season, after the 7th things slowly started to improve although we didn't have a morning of full net hours until the 13th. At this point we were operating our new nets (50, 51, 52, 53, 54, 55, 56, 57) along with our old nets (2, 2x, 3, 4, 8, 9, 9x, 12, 40, 41, 43, 49). We decided to add these new nets this season to see how vegetation is affecting our capture rates. When the old nets were historically established, the dominant vegetation surrounding them was Willow shrubs. Today after 30 years of succession most of this vegetation has become Aspen Poplar. All of the new nets were placed within young Willow shrub habitat that is hypothesized to provide more cover for songbirds and therefore attract more of them to our nets. We had excellent songbird movement through the natural this spring and the results were phenomenal.

Songbird Migration Monitoring

Songbird Migration Monitoring started on May 1st and ran until June 9th. In the old nets a total of 409 birds of 39 species were captured in 1782.5 net hours for a capture rate of 22.95 birds/100 net hours (Table 1). In the new nets a total of 432 birds of 29 species were captured in 832 net hours for a capture rate of 51.92 birds/100 net hours (Table 1).

We had an excellent spring that peaked on the 19th when we caught 110 birds of 16 species in a single morning. And it was Jerry's first day! The species breakdown is summarized in Table 2 (old nets) and Table 3 (new nets).

The low number of net hours for the new nets can be explained by the following factors: a late start due to snow, the nets being more exposed in Willows forced us to close when it became windy, and these nets were set later in the season because they were a secondary priority to the old nets.



Tree Swallow with a Geolocator!!!!



Jerry after banding his first bird, a Yellow Warbler

Besides the weather, coverage was great thanks to Jerry Gordy (Assistant Bander), as well as Geoff Holroyd and Jim Beck who covered the lab for 2 days each while staff were on days off.

The top five species captured in the old nets during Spring Migration Monitoring included: Least Flycatcher (88), Clay-colored Sparrow (79), Swainson's Thrush (35), Chipping Sparrow (32), and Yellow Warbler (28). These species accounted for 64% of all captures. Least Flycatchers accounted for 22%, Clay-colored Sparrows accounted for 19%, Swainson's Thrush accounted for 9%, Chipping Sparrows accounted for 8%, and Yellow Warblers accounted for 7% of all captures.

The top five banded birds from the old nets included: Clay-colored Sparrow (43), Least Flycatcher (41), Swainson's Thrush (33), Chipping Sparrow (30), and Myrtle Warbler (24). These birds accounted for 66% all birds banded from the old nets.

There were many notable captures this spring. First we caught a Tree Swallow with a Geolocator on its leg! Am and Geoff were very excited. Then one day we caught a very peculiar Least Flycatcher. It was a recapture that was originally banded in Mexico!!! And Am had met the man who banded it one year ago at a bird banding conference. So cool!!!

Table 1. Ten year trends for bird captures and net hours at the BBO.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 (Old Nets)	2014 (New Nets)
Birds Captured	276	242	408	382	500	497	412	459	324	409	432
Birds Banded	196	169	318	288	351	333	241	307	211	261	300
Net Hours	1570	1615	1813	1828	1608	2016	1884	1997	1884	1782.5	832
Capture Rate (birds/100 net hours)	17.46	14.98	22.84	20.9	31.09	24.65	21.87	22.99	17.2	22.95	51.92
Species Captured	32	31	44	38	39	38	40	39	36	39	29

Table 2. Birds caught in the old nets at Beaverhill Bird Observatory Spring 2014

Species	Banded	Repeat¹	Return²	Foreign³	Other⁴	Total
Alder Flycatcher	1	0	0	0	0	1
American Goldfinch	7	0	0	0	0	7
American Redstart	1	0	0	0	0	1
American Robin	6	1	5	0	3	15
Baltimore Oriole	3	3	0	0	1	7
Black-and-white Warbler	1	0	0	0	0	1
Black-capped Chickadee	1	7	4	0	4	16
Blackpoll Warbler	4	0	0	0	0	4
Brown Creeper	1	0	0	0	0	1
Brown-headed Cowbird	2	2	1	0	2	7
Cedar Waxwing	2	0	0	0	0	2
Chipping Sparrow	30	0	0	0	2	32
Clay-colored Sparrow	43	13	0	0	23	79
Cooper's Hawk	0	0	0	0	1	1
Downy Woodpecker	4	0	0	0	0	4
Golden-crowned Kinglet	1	0	0	0	0	1
Gray Catbird	2	0	0	0	0	2
Hermit Thrush	2	0	0	0	0	2
House Wren	12	1	0	0	2	15
Least Flycatcher	41	21	11	1	14	88
Lincoln's Sparrow	4	0	0	0	0	4
Mourning Warbler	1	0	0	0	0	1
Myrtle Warbler	24	0	0	0	2	26
Orange-crowned Warbler	1	0	0	0	0	1
Purple Finch	1	0	0	0	0	1
Rose-breasted Grosbeak	1	0	0	0	0	1
Ruby-crowned Kinglet	1	0	0	0	0	1
Slate-colored Junco	3	0	0	0	0	3
Swainson's Thrush	33	0	0	0	2	35
Swamp Sparrow	1	0	0	0	0	1
Tennessee Warbler	2	0	0	0	0	2
Trail's Flycatcher	1	0	0	0	0	1
Tree Swallow	4	0	0	0	0	4
Warbling Vireo	1	1	2	0	0	4
White-crowned Sparrow	2	0	0	0	0	2
White-throated Sparrow	4	0	0	0	0	4
Yellow Warbler	10	11	4	0	3	28
Yellow-bellied Flycatcher	1	0	0	0	0	1
Yellow-bellied Sapsucker	2	0	1	0	0	3
Total	261	60	28	1	59	409

- 1 Banded recently (within 90 days) at the BBO.
- 2 Banded at the BBO > 90 days prior to recapture (e.g. in a previous year).
- 3 Banded at a location other than the BBO.
- 4 Caught in a mist-net but not banded (e.g. escaped net).

Table 3. Birds caught in the new nets at Beaverhill Bird Observatory Spring 2014

Species	Banded	Repeat ¹	Return ²	Foreign ³	Other ⁴	Total
Alder Flycatcher	2	0	0	0	0	2
American Goldfinch	4	1	0	0	0	5
American Robin	2	0	0	0	1	3
Baltimore Oriole	2	1	0	0	0	3
Black-capped Chickadee	0	5	2	0	1	8
Blackpoll Warbler	4	0	0	0	0	4
Brown-headed Cowbird	3	0	1	0	0	4
Canada Warbler	1	0	0	0	0	1
Chipping Sparrow	29	0	0	0	0	29
Clay-colored Sparrow	117	38	0	0	17	172
Gray Catbird	2	0	0	0	0	2
House Wren	11	1	0	0	0	12
Least Flycatcher	31	17	3	0	7	58
Lincoln's Sparrow	7	0	0	0	1	8
Myrtle Warbler	8	0	0	0	0	8
Orange-crowned Warbler	4	0	0	0	0	4
Red-eyed Vireo	1	0	0	0	0	1
Ruby-crowned Kinglet	1	0	0	0	0	1
Ruby-throated Hummingbird	0	0	0	0	2	2
Savannah Sparrow	3	0	0	0	0	3
Swainson's Thrush	15	0	0	0	0	15
Tennessee Warbler	3	0	0	0	0	3
Trail's Flycatcher	4	0	0	0	0	4
Tree Swallow	5	0	4	0	0	9
Warbling Vireo	4	0	2	0	0	6
White-crowned Sparrow	3	0	0	0	2	5
White-throated Sparrow	12	0	0	0	0	12
Yellow Warbler	21	14	8	0	4	47
Yellow-bellied Flycatcher	1	0	0	0	0	1
Total	300	77	20	0	35	432

- 1 Banded recently (within 90 days) at the BBO.
- 2 Banded at the BBO > 90 days prior to recapture (e.g. in a previous year).
- 3 Banded at a location other than the BBO.
- 4 Caught in a mist-net but not banded (e.g. escaped net).

Other Banding

Aside from songbirds at the BBO, the staff was very fortunate to band various species of raptors with one of our board members, Al Degroot. On May 10th we banded Great-horned Owl chicks, on the 19th we banded Boreal Owl chicks, and on June 8th we checked a Saw-whet Owl box but the chicks were too young to band. Al also took our propane fridge in to get serviced, updated the cabins, and built us an outdoor shower. Thanks Al!!!!



Kev, Am and Jerry with some adorable Boreal Owl chicks.

Baillie Birdathon

This year's Baillie Birdathon was a huge success! The BBO staff raised over \$1500 (and counting!) The team consisted of Am, Jerry, Alyssa, Emily, Scott, Allyn, Jeff and myself. We started on May 25th with our usual morning of banding and census, then moved from Kallal pond to Amisk Creek, the Tofield slough, the Tofield Golf Course, then Geoff's house at Islet lake. Me and Am snagged the last couple of species at Elk Island by nightfall. All in all we saw or heard 111 species of birds!!!! It was a great day of birding.

Census

We had plenty of highlights on census right from day one. On May 1st a Sprague's Pipit was observed, there was an Evening Grosbeak near the lab on May 4th, and flocks of Wilson's Phalaropes on May 22nd. May 5th will be remembered as the 'Five Raptor Census', which was the day we observed Northern Harrier, American Kestrel, Rough-legged Hawk, Cooper's Hawk, and Red-tailed Hawk on a single census. There were high counts of Leconte's Sparrow nearly every day from May 11th onward. It was a great spring for most Sparrow species. Huge flocks of Chipping Sparrows moved through in mid to late May. Compared to last year, there were very few Northern Harriers observed.

Other animals

Other animals found in the Natural Area this spring included Thirteen-lined Ground Squirrel, Red Fox, Coyote, Moose, White-tailed Deer, Snowshoe Hare, Short-tailed Weasel, Red-backed Vole, Porcupine, Meadow Jumping Mouse, and Flying Squirrel.

Interpretation

Along with daily interpretation, this spring two major interpretation events took place the Big Birding Breakfast and International Migratory Bird Day. The Big Birding Breakfast, as per usual, was a huge success! Claude Roberto made over 400 crepes throughout the morning and cooked 8 packs of bacon to satisfy the hunger of 61 visitors that attended the event. International Migratory Bird Day was hosted by Nature Alberta, and the BBO staff attended. The BBO staff ran a banding demonstration, a table and poster board and brought Colonel, the educational owl. Hundreds of kids and adults came by the booth and learned all about bird banding, migration, bird conservation, owl biology and local bird species.

Acknowledgements

Thanks to everyone who came out and visited the station this spring! We feel very fortunate for all of the people that made this spring unforgettable.

Thanks to all of the interns for all their hard work on their various projects; Alison Hoselton, Laura Venrig, Victoria Giacobbo, Norma-Jane Young, Scott Claypool, Zac MacDonald, Randi Glen, Sara Friske, Rachel Keglowsch, Emily Cicon, Allyn Esau, and Michelle Zarowny. We are so really fortunate to have such a hard working group of interns this year.

Thanks also to Hedwig and Sam from the Bayne Lab who came and helped guide the staff in setting up the ARU project and the House Wren projects this year. Thanks also to John Acorn who helped guide the staff with their butterfly program. Thanks also to Brian Leishman who came out with John.

Thanks our board members and specifically to Geoff Holroyd and Jim Beck who covered the staffs' days off, and to Al who helped with lab maintenance, and built a gorgeous new shower. Thanks again to Geoff Holroyd who came and set up with the BBO staff the Purple Martin house, and who helped recover and deploy Tree Swallow geolocators with the help of Helen Trefry, another board member. Thanks to Chuck Priestley who came and set up and maintained our bat detector. And thanks to Margaret Takats who came out and dropped off new scales for the staff.

This spring we were also fortunate enough to have Kevin and Chris from the St. Albert Gazette come out to the BBO, took photos, and put together an article.

Special thanks to the Nikal crew, Chris Kallal, Tyler Niles, and Sheehan, who came and helped the staff and several volunteers clear trails. Thanks to Shane Hoveland, Laura Venrig, Helen Trefry, Geoff Holroyd, Malicia Besnard, and Alexis Laforge for volunteering their time to help clear trails as well.

Thanks also to Geoff Holroyd (who evidently did a lot on site this spring!), Jim Beck, Irene Crosland, Nicolle Spencer, Nicole Boucher, Alyssa Bohart, Lisa Priestley, Randi Glen, who helped the staff open the lab in the spring and who helped clear new net lanes.

We were also honored to be visited by MLA Fenske, the Tofield MLA, this spring! Thanks to MLA Fenske for taking the time to come out to the BBO and spending a few hours getting a tour of the lab and watching the banding process!

This spring the BBO has also been fortunate enough to host several long term volunteers. Dawn and Jay Rymer came for two weeks this spring and assisted the staff with spring migration, and were an asset to the team. Alexis Laforge and Malicia Besnard came all the way from France and stayed with the staff for a month, and became part of the BBO family. Thanks to all our long-term volunteers!

Thanks also to our regular volunteers! We are so lucky to be so supported by such amazing volunteers. Steve Andersen came out every weekend this spring and spent his weekends with the staff. He is always such a joy to have around, after being a dedicated butterfly intern last year, he came back this spring and helped develop the butterfly project protocol and showed this year's butterfly intern the ropes. Thanks also to Irene Crosland, the BBO staffs' field mom. Irene has a way of knowing when moral is low, and comes out to the lab and brighten the staffs' day. Irene has also been known to supply the BBO staff with chicken noodle soup and cookies, like the best moms. Thanks also to Jeff Manchuk, who came out on several mornings and helped the staff extract when capture rates were high and migration was busy. Jeff also brought out his grade 11 biology class on a field trip and helped increase our exposure in town! Thanks Jeff!

Thanks also to Jeff for participating in this year's Baillie Birdathon. Thanks also to Emily Cicon, Allyn Esau, Scott Claypool, and to Alyssa Bohart who were part of the 2014 BBO Baillie Birdathon team!

Thanks also to the countless visitors who we have run into walking in the natural area! Always a pleasure seeing new friendly faces!

Overall, we are incredibly touched by the support we've received from everyone this spring. The people are truly what make working in a place like this such an enjoyable experience. Thank you.



The trail clearing crew! Nikal, Chris, Tyler, and Sheehan, and the BBO crew, Alexis, Malicia, Jerry, Kev, Shane, and Laura.



Summer Report 2014

By Jerry Gordy and Amélie Roberto-Charron

August 31, 2014

Introduction

The 2014 summer season covers the period from June 10th to July 31st. During that time, the Beaverhill Bird Observatory staff: Amélie Roberto-Charron (Bander In Charge); Kevin Methuen (Senior Bander); and Jerry Gordy (Assistant Bander); were responsible for carrying out the Monitoring Avian Survivorship and Productivity (MAPS) program.

The Institute for Bird Populations created the MAPS program in 1989 to assess and monitor the adult survivorship, post-fledging productivity, and population dynamics of breeding, North American land birds. The data obtained from the MAPS program can provide critical conservation and management information on bird populations. The MAPS program employs constant-effort mist netting and banding to gather data.



The 2014 Summer Staff (From left to right): Jerry Gordy, Amélie Roberto-Charron and Kevin Methuen



Jerry at a mist net extracting a bird.

The Beaverhill Bird Observatory runs five ten-day rounds of MAPS, at three different stations: BLAB, PARK, and WEIR. A round of MAPS includes three mornings of banding (one day at each station) followed by nine point counts at each of the stations. The reason MAPS runs on ten day cycles is so that an individual bird caught in a mist net at a given site is only kept from their parenting duties during the critical breeding season for only a brief time. Presumably, mist-netting at a location once every ten days will not significantly effect the development of young nestling birds awaiting food from its parents.

Each station runs ten mist-nets and nine point count locations. Mist-nets open at sunrise and banding continues for six hours. Point counts are performed at each of the nine locations for ten minutes.

BLAB

The BLAB station (Latitude 52 22 50, Longitude 112 31 39), located just South of the migration nets, is the oldest MAPS station at the BBO, operating since the inception of the MAPS program in 1989. The BLAB nets caught 51 birds from 7 different species over 282 net-hours, for a capture rate of 18 birds/100 net-hours. Last year, 60 birds from 9 species were caught at BLAB over 300 hours, making for a slightly higher capture rate of 20 birds/100 net-hours. Of the

51 birds caught, 36 were Least Flycatchers (~70% of birds caught). The most charismatic bird species caught at BLAB were two Rose-breasted Grosbeaks. Other captures included: American Robin (2), Brown-headed Cowbird (5), Downy Woodpecker (1), House Wren (3) and a single American Goldfinch.

Banding occurred at BLAB on June 11th, June 20th, July 2nd, July 12th, and July 29th.

PARK

The PARK station (Latitude 53 22 34, Longitude 112 31 45), a ten-minute walk South of the lab, has been in operation since 1996. The PARK nets caught 30 birds from 4 different species over 300 hours, for a capture rate of 10 birds/100 net-hours. Last year, 37 birds from 6 different species were caught at PARK over the same number of net-hours, making for a capture rate of 12 birds/100 net-hours. Of the 30 birds caught at PARK, 26 were Least Flycatchers (approximately 87% of birds caught). The other four birds were: a Baltimore Oriole, a Brown-headed Cowbird, a Hairy Woodpecker, and a Yellow-bellied Sapsucker.

Banding occurred at PARK on June 12th, June 22nd, July 3rd, July 13th, and July 27th.

WEIR

The WEIR station (Latitude 53 22 48, Longitude 112 30 19), is located East of the lab, where Lister Lake meets Beaverhill Lake by way of an old weir. This station has been in operation since 1994. The WEIR nets caught 35 birds from 5 different species over 300 hours, a capture rate of 11.7 birds/100 net-hours. Last year, 29 birds from 6 different species were caught at WEIR over the same number of net-hours, making for a capture rate of 9.7 birds/100 net-hours. Of the 35 birds caught, 28 were Least Flycatchers (80% of all birds caught). Other birds caught at WEIR include: Clay-colored Sparrow (2), Hairy Woodpecker (1), Brown-headed Cowbird (2), and two Downy Woodpeckers.

Banding occurred at WEIR on June 13th, June 23rd, July 4th, July 14th, and July 28th.

Summary

Overall, 116 birds were caught during the 2014 MAPS program. Of that total, 77.6% were Least Flycatchers (compared to 74.6% last year). Aside from the Least Flycatcher, the Brown-headed Cowbird was the only other bird species to be caught at all three stations (8 caught in total). The third most commonly captured bird resulted in a three way tie between the American Robin, Downy Woodpecker and House Wren. Three were caught of each species.

The total number of birds caught in this year's MAPS program (116) is ten fewer than the total from last year (126), and 78 fewer than the average number of MAPS captures between the seven year period from 2007 – 2013. Compared to this same seven period, 2014 BLAB captures (51) were 30 fewer; 2014 PARK captures (30) were 20 fewer; and 2014 WEIR captures (35) were 26 fewer. Overall capture rates for the 2014 MAPS period (13) were less than two-thirds of the capture rates of the seven-year average (22). Raw numbers for the 2014 MAPS period and summary data for the years 2007 – 2013 are presented in Appendix 1 and Appendix 2.

Tree Swallow Nest Boxes



A total of 269 Tree Swallow nest boxes were monitored over the summer. Nest development, egg laying, and chick hatching were tracked. When chicks reached banding age they were banded by the staff. Several adults were also banded when they were present in the nest box during monitoring or the banding of the chicks.

A new grid, the B grid, was set up around the historic Beaverhill Lake bed in the fall of 2013. This was the first year that the grid was operational. It was monitored over the summer with the other grids, and the chicks were banded when they were at the appropriate age.

Tree Swallow chick after having been banded.

Table 1-Tree Swallow summary data for the R, S, T, and B grids for 2014.

Grid	R	S	T	B
Number of available boxes	48	50	49	122
TRES nest attempts	24	35	37	58
Adult TRES banded	17	0	37	2
Total TRES chicks banded	36	141	39	54
Average clutch size	4.8	4.9	5.1	4.8
Highest clutch size	7	7	8	7
Lowest clutch size	2	3	3	1
MOBL nests	2	0	1	9
HOWR nests	0	2	3	0
HOSP nests	0	0	0	1

Tree Swallow Geolocators

In addition to nest box monitoring, some geolocator work took place on Tree Swallows this year.

Geolocators are 0.7gm migration tracking units sit on the rump of the swallows similar to a fanny pack attached with a fine rubber cord around the swallows' legs. The units record Universal Time (Greenwich Mean Time) and light levels. This information is then downloaded by to determined when sunrise and sunset occurred for each day that the swallow carried the geolocator. Longitude can be determined using time and sunrise; and latitude can be determined using longitude, date and day-length (in the summer, longer days occur at higher latitudes). By determining the longitude and latitude the migratory route taken by the Tree Swallow can be determined.



A Tree Swallow with a geolocator.

During the summer 13 geolocators were recovered from the 40 that were deployed in 2014. In addition to the geolocators that were recovered this year, an additional 30 were deployed this year.

Natural nest searches



Female Ruby-throated Hummingbird on her nest.

Natural nest searches were performed opportunistically during the 2014 summer. Whenever possible nest searches took place, and when a nest was found, information on the nest was recorded. The location and date observed were recorded, and the species, number of young, number of eggs, approximate age of young, whether brood parasites were present were determined when possible and recorded.

This summer over 50 natural nests were found on site! The species' nests found included Common Raven, Tree Swallow, Least Flycatcher, House Wren, Clay-colored Sparrow, Ruby-throated Hummingbird, Yellow Warbler, Mallard, and Blue and Green-winged Teals.

Point counts

Point counts were also conducted at nine locations within each of the MAPS stations. At each point count observers listened for 10 minute periods and recorded all birds heard within that time, noting the approximate distance of the bird from the observer, the direction of the bird, as well as which time interval the bird was heard singing (Interval 1 = 1-3 minutes, Interval 2 = 3-5 minutes, and Interval 3 = 5-10 minutes).

The top species detected were Least Flycatcher (38.0 % of the total detections), Warbling Vireo (9.3%), House Wren (7.6%), Yellow Warbler (6.9%) and Black-capped Chickadee (5.1%).

Dates that the point counts were conducted are as follows:

BLAB: June 10, June 21, July 15, July 26, July 29,
PARK: June 10, June 16, June 21, July 15, July 25, July 31
WEIR: June 10, June 16, June 21, July 16, July 22, July 31

Table 2- Species recorded per station during the summer 2014 point counts

Species	BLAB	PARK	WEIR	Total
American Crow	2	7	3	12
American Goldfinch	7	4	0	11
American Robin	0	0	6	6
Baltimore Oriole	0	3	5	8
Black-capped Chickadee	15	8	0	23
Brown-headed Cowbird	6	7	8	21
Canada Goose	0	0	1	1
Clay-colored Sparrow	6	7	1	14
Cedar Waxwing	4	1	0	5
Common Raven	5	5	3	13
Common Snipe	1	6	4	11
Downy Woodpecker	1	3	0	4
Hairy Woodpecker	3	1	4	8
House Wren	7	15	12	34
Least Flycatcher	57	72	42	171
Lincoln's Sparrow	0	2	0	2
Mallard	0	2	0	2
Mourning Dove	0	2	3	5
Pied-billed Grebe	0	2	0	2
Orange-crowned Warbler	1	0	0	1
Rose-breasted Grosbeak	2	0	0	2
Red-winged Blackbird	1	1	4	6
Ruby-throated Hummingbird	0	1	0	1
Tennessee Warbler	0	1	0	1
Tree Swallow	5	3	0	8
Warbling Vireo	14	15	13	42
Yellow-bellied Sapsucker	0	2	1	3
Yellow-headed Blackbird	0	0	2	2
Yellow Warbler	7	8	16	31
Total	144	178	128	450

Bat boxes

This summer three new bat boxes were set up at the BBO, bringing the total number of bat boxes on site to five. The new bat boxes were set up on June 5th. The bat boxes were monitored at least once per week over the course of the summer, from June 5th to July 31st. Bats were only recorded in bat box two and three this year, located across the Weir. A Little Brown Bat was observed on June 16th, June 17th, June 22nd, June 25th in bat box three. On July 20th a Little Brown Bat was observed in bat box two.

Additional Incidental Wildlife Observations

Other species observed incidentally during the 2014 summer included Porcupine, Northern Flying Squirrel, Voles, Coyotes, White-tailed deer, Moose, Green-winged Teal, Blue-winged Teal, Mallard, Ruffed Grouse, Common Yellowthroat, Redhead, Yellow-headed Blackbird, Red-winged Blackbird, Snowshoe Hare, Thirteen-lined Ground Squirrel, Pocket Gopher, Peregrine Falcon, American Kestrel, American White Pelicans, Canvasbacks and Mule Deer.

Acknowledgements

The BBO staff would like to acknowledge the contributions to the BBO from the following people who donated their time, energy, and sometimes even their groceries and culinary skills to the BBO. These people make operations here run smoothly and they keep morale high. In Alphabetical order, the BBO staff would heartily like to thank:

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Appendix 1. MAPS Raw Data

BLAB

Species	Banded	Repeat	Return	Other	Total
AMGO	1	0	0	0	1
AMRO	1	1	1	0	3
BHCO	2	1	2	0	5
DOWO	0	0	1	0	1
HOWR	3	0	0	0	3
LEFL	16	14	4	2	36
RBGR	2	0	0	0	2
Total	25	16	8	2	51

PARK

Species	Banded	Repeat	Return	Other	Total
BAOR	1	0	0	0	1
BHCO	1	0	0	0	1
HAWO	0	0	0	1	1
LEFL	18	3	5	0	26
YBSA	0	0	1	0	1
Total	20	3	6	1	30

WEIR

Species	Banded	Repeat	Return	Other	Total
BHCO	2	0	0	0	2
CCSP	1	1	0	0	2
DOWO	2	0	0	0	2
HAWO	1	0	0	0	1
LEFL	15	4	8	1	28
Total	21	5	8	1	35

Appendix 2. MAPS Raw Data (2007 – 2013)

YEAR	BLAB	PARK	WEIR	TOTAL	NET HOURS	CAPTURE RATE
2007	64	26	39	129	869.5	15

2008	72	78	69	219	900	24
2009	83	55	82	220	900	24
2010	119	70	103	292	900	32
2011	92	42	38	172	900	19
2012	78	59	61	198	900	22
2013	60	29	37	126	900	14
AVERAGE	81	51	61	194	896	22
2014	51	30	35	116	882	13



Fall Report 2014

by

Amélie Roberto-Charron and
Lisa Priestley

Songbird Fall Migration Monitoring

Fall migration captures at Beaverhill Bird Observatory in 2014 were higher than 2013, with 738 birds captured, and a capture rate of 28.8 birds/100 net hours (Table 1, Figure 1). The capture rate was slightly lower than the last ten years average of 30.4 birds/100 net hours. A total of 2565 net hours were run, 50% of the total 5112 net hours that were possible, 11% lower than 2013. Most netting time missed was due to poor weather (rain, wind and a snow storm) in September and frost, and below zero temperatures in October.

Table 1. 2014 fall songbird-banding results from Beaverhill compared to previous ten years.

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Birds Captured	975	1256	1969	1079	892	875	880	701	978	631	738
Birds Banded	818	1089	1525	952	723	718	708			628	618
Net Hours	3228.5	2787.3	3476.0	3534.0	3399.5	3670.5	3189.5	3678.0	3682.5	3143.5	2565.0
Capture Rate	30.2	45.1	56.6	30.5	26.2	23.8	27.6	19.1	26.6	20	28.8
Spp. Captured	60	59	63	52*	58*	51	60*	53	57*	45	46

* includes Ruffed Grouse caught in net but not banded

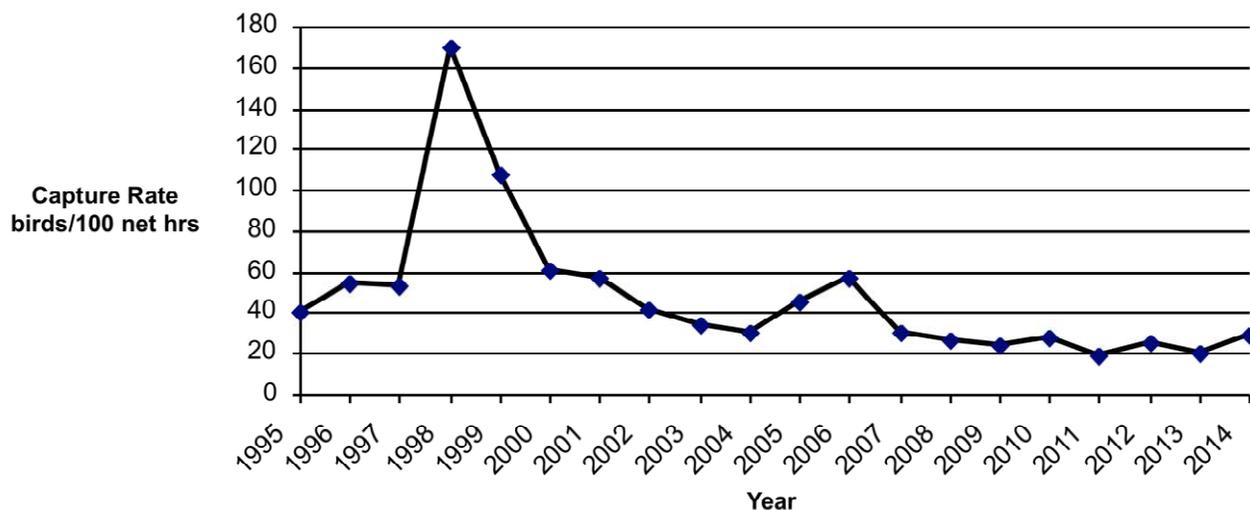


Figure 1. A comparison of fall capture rates (songbirds/100 net hours) between 1995 and 2014.

The top three species representing 55% of the captures were: Myrtle Warbler (31% of captures with 232 individuals), Least Flycatcher (17%, 122), and Black-capped Chickadee (7%, 54). The capture rates for the Myrtle Warbler and Least Flycatcher were higher than those from last year, 155 and 63 respectively. In 2013, Black-capped Chickadees had a slightly higher capture rate, with 62 captured. Unusual species that were captured this fall were 3 Brown Creepers, 3 Western Palm Warblers, and a Broad-winged Hawk!

Table 2. Birds caught in mist nets at Beaverhill Bird Observatory fall 2014.

Species	Banded	Repeat ¹	Return ²	Foreign ³	Other ⁴	TOTAL
Alder Flycatcher	2	0	0	0	0	2
American Goldfinch	5	0	0	0	3	8
American Redstart	17	2	0	0	2	21
American Robin	1	0	0	0	0	1
American Tree Sparrow	23	0	0	0	0	23
Black-billed Magpie	1	0	0	0	0	1
Black-capped Chickadee	19	32	1	0	2	54
Blackpoll Warbler	6	0	0	0	0	6
Blue Jay	1	0	0	0	0	1
Blue-headed Vireo	2	0	0	0	0	2
Broad-winged Hawk	0	0	0	0	1	1
Brown Creeper	3	0	0	0	0	3
Clay-colored Sparrow	2	0	0	0	1	3
Common Yellowthroat	1	0	0	0	0	1
Downy Woodpecker	7	8	0	0	0	15
Fox Sparrow	2	0	0	0	0	2
Golden-crowned Kinglet	1	0	0	0	0	1
Gray Catbird	2	1	1	0	0	4
Hairy Woodpecker	2	1	0	0	0	3
Hermit Thrush	3	0	0	0	1	4
House Wren	9	1	0	0	0	10
Least Flycatcher	101	12	0	0	9	122
Lincolns Sparrow	2	0	0	0	0	2
Magnolia Warbler	8	0	0	0	0	8
Mourning Warbler	5	0	0	0	0	5
Myrtle Warbler	221	4	0	0	7	232
Orange-crowned Warbler	36	2	0	0	0	38
Ovenbird	7	0	0	0	0	7
Red-eyed Vireo	3	0	0	0	0	3
Rose-breasted Grosbeak	1	0	0	0	0	1
Ruby-crowned Kinglet	10	0	0	0	0	10
Sharp-shinned Hawk	1	0	0	0	0	1
Slate-colored Junco	20	0	0	0	1	21
Song Sparrow	2	0	0	0	1	3
Swainson's Thrush	6	0	0	0	0	6
Swamp Sparrow	1	0	0	0	0	1
Tennessee Warbler	26	4	0	0	2	32
Trail's Flycatcher	6	0	0	0	1	7
Warbling Vireo	12	8	0	0	3	23
Western Palm Warbler	3	0	0	0	0	3
White-breasted Nuthatch	2	2	0	0	0	4
White-crowned Sparrow	3	0	0	0	0	3
White-throated Sparrow	7	1	0	0	0	8
Wilson's Warbler	10	2	0	0	0	12
Yellow Warbler	15	0	2	0	1	18
Yellow-bellied Flycatcher	1	1	0	0	0	2
Total	618	81	4	0	35	738

¹ Repeat indicates it was captured with the last 90 days at the bird observatory

² Return indicated it was captured over 90 days before at the bird observatory

³ Other Captures include escaped birds, released without banding

In addition to our 12 standard historical nets, this fall eight new nets were set up further into the willows past 8, 9, and 9X. They have been numbered 50 through 57. They were operated during the entire fall season. They were run for a total of 1153.5 hours. They captured 63.5 birds per 100 net hours, with a total of 732 birds.

This capture rate was just over two times what was recorded in our standard 12 nets. A breakdown of the species captured is provided in table 3.

Table 3. Birds caught in new mist nets at Beaverhill Bird Observatory fall 2014.

Species	Banded	Repeat ¹	Return ²	Foreign ³	Other ⁴	TOTAL
Alder Flycatcher	2	0	0	0	0	2
American Goldfinch	5	0	0	0	0	5
American Redstart	17	1	0	0	0	18
American Robin	1	0	0	0	0	1
American Tree Sparrow	23	0	0	0	0	23
Black-billed Magpie	1	0	0	0	0	1
Black-capped Chickadee	19	25	0	0	2	46
Blackpoll Warbler	6	0	0	0	0	6
Blue Jay	1	0	0	0	0	1
Blue-headed Vireo	2	0	0	0	0	2
Brown Creeper	3	0	0	0	0	3
Clay-colored Sparrow	2	3	1	0	6	12
Common Yellowthroat	1	0	0	0	0	1
Downy Woodpecker	7	2	0	0	0	9
Fox Sparrow	2	0	0	0	0	2
Golden-crowned Kinglet	1	0	0	0	0	1
Gray Catbird	2	0	0	0	0	2
Hairy Woodpecker	2	0	0	0	0	2
Hermit Thrush	3	0	0	0	1	4
House Wren	9	1	0	0	3	13
Least Flycatcher	101	11	0	0	14	126
Lincolns Sparrow	2	0	0	0	16	18
Magnolia Warbler	8	0	0	0	0	8
Mourning Warbler	5	0	0	0	0	5
Myrtle Warbler	221	2	0	0	1	224
Orange-crowned Warbler	36	0	0	0	0	36
Ovenbird	7	0	0	0	0	7
Red-eyed Vireo	3	0	0	0	0	3
Rose-breasted Grosbeak	1	0	0	0	0	1
Ruby-crowned Kinglet	10	0	0	0	0	10
Sharp-shinned Hawk	1	0	0	0	0	1
Slate-colored Junco	20	1	0	0	1	22
Song Sparrow	2	0	0	0	0	2
Swainson's Thrush	6	0	1	0	0	7
Swamp Sparrow	1	0	0	0	0	1
Tennessee Warbler	26	2	0	0	4	32
Trail's Flycatcher	6	0	0	0	0	6
Warbling Vireo	12	5	0	0	2	19
Western Palm Warbler	3	0	0	0	0	3
White-breasted Nuthatch	2	0	0	0	0	2
White-crowned Sparrow	3	0	0	0	0	3
White-throated Sparrow	7	1	0	0	0	8
Wilson's Warbler	10	2	0	0	0	12
Yellow Warbler	15	2	1	0	3	21
Yellow-bellied Flycatcher	1	0	0	0	0	1
Total	618	58	3	0	53	732

¹ Repeat indicates it was captured with the last 90 days at the bird observatory

² Return indicated it was captured over 90 days before at the bird observatory

³ Other Captures include escaped birds, released without banding

Fall Saw-whet and Boreal Owl Monitoring

Beaverhill Bird Observatory

Northern Saw-whet Owl fall migration monitoring began on September 10 and was completed on November 16, 2014. Data from September 10 through November 14 was used in analysis to be comparable to previous seasons. A total of 56 nights were covered amounting to 1068.0 net hours. We caught 234 Saw-whet owls (capture rate of 21.9 owls/100 net hours) (Table 3, Figure 2). We had 231 unbanded Saw-whets, and three encounters of banded birds. One encounter was from Gehlert Grove from October 9 (operated by a volunteer under the auspices of BBO), one from Calgary Bird Banding Society's Bragg Creek station from September 21, and one unknown band (submitted to banding office for information). Our highest number of captures was 15 in a night. One extra night of banding occurred on November 16 with no saw-whets being captured. We also captured one Long-eared Owl in the Saw-whet nets on November 3.

Table 4. Northern Saw-whet Owls captured at Beaverhill Lake 2002-2014 (Sept 9- Nov 14).

Year	Number of Nights	Number of Net Hours	Number of Owls Captured	Number of Owls/100 Net Hours
2002	54	929.0	144	15.5
2003	48	761.0	147	19.3
2004	58	992.0	296	29.8
2005	38	604.0	135	22.4
2006	42	559.5	147	26.3
2007	49	675.5	183	27.1
2008	47	669.5	131	19.6
2009	48	806.5	125	15.5
2010	57	1067.0	304	28.5
2011	55	1130.0	229	20.3
2012	53	1044.0	157	15.0
2013	63	1234.0	199	16.1
2014	56	1068.0	234	21.9

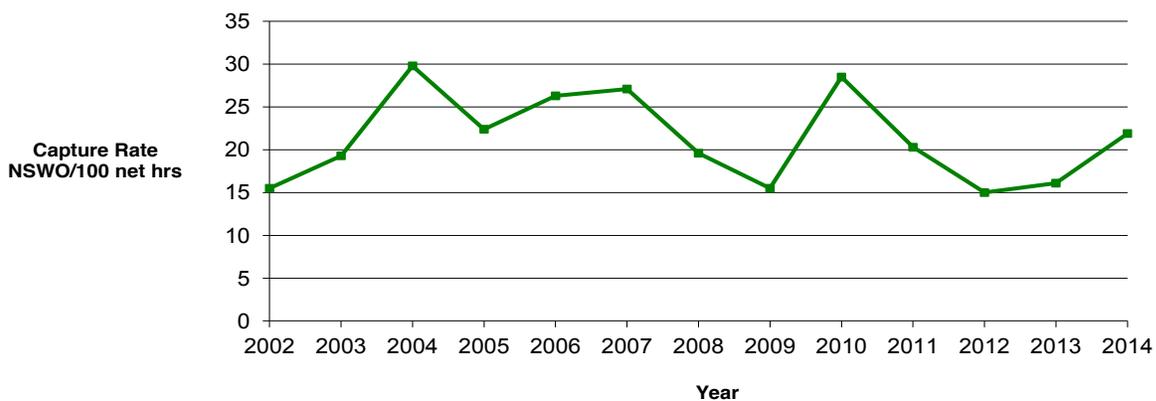


Figure 2. A comparison of capture rates (Saw-whets/100 net hours) between 2002 and 2014 (September 9 to November 14 only).

We ran a third season of Boreal Owl monitoring from October 20 through November 16 for 22 nights (235.5 net hours). This year we ran the Boreal Owl nets every night alongside the Saw-whet Owl nets. We captured three Boreal Owls and one Saw-whet Owl in the Boreal nets (1.3 owls/100 net hours). In 2013, we ran Boreal Owl nets every second night from October 20 through November 17 (11 nights, 124.5 net hours). We caught 2 Boreal Owls (1.6 owls/100 net hours). In 2012 we ran Boreal Owl nets every second night from October 20 to November 16 (13 nights, 150 net hours), and we caught four Boreal Owls (2.7 owls/100 net hours).

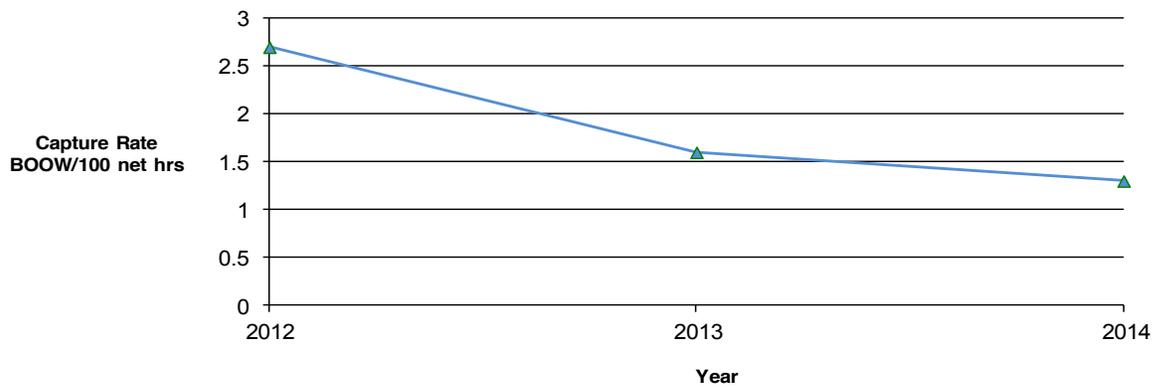


Figure 3. A comparison of capture rates (Boreal Owls/100 net hours) between 2012 and 2014.

Gehlert's Grove

Bob Gehlert ran his sixth year of Saw-whet monitoring at Gehlert's Grove near Lindbrook (west of Tofield) with 2 nets for most of the season, but lost one net to a moose in early November. Bob banded on 36 nights between September 20 and November 7 for 266 net hours and caught 80 Saw-whet Owls (capture rate of 30.0 owls/100 net hours). There were 79 owls banded and one encounter of a banded owl from Ray Cromie's nestbox near Ardrossan, AB.



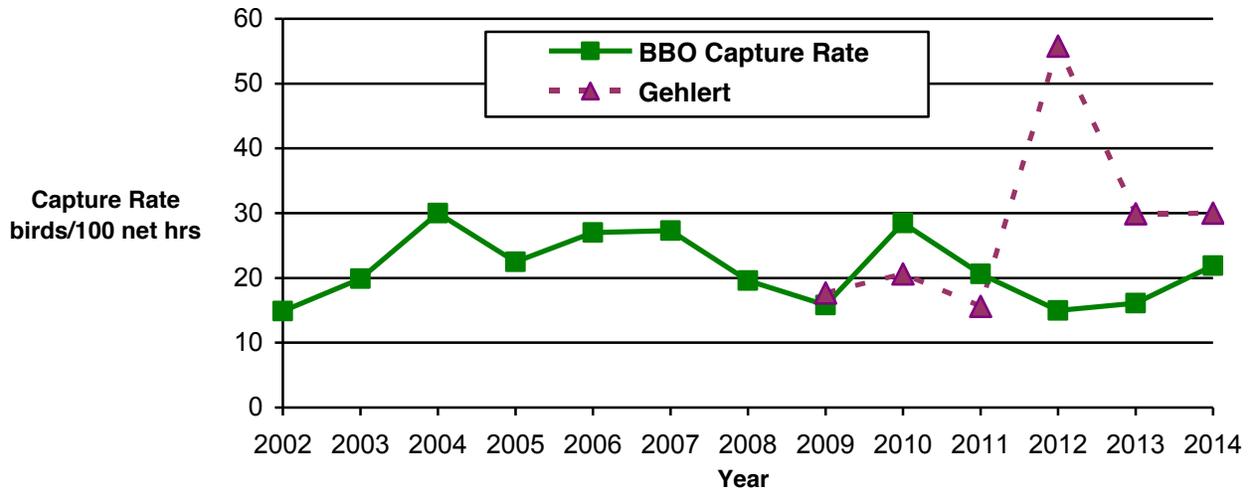


Figure 4. Comparison of Saw-whet Owl capture rates of BBO and Gehlert’s Grove.

Interpretation

Large numbers of visitors came out to Beaverhill throughout the fall to observe the banding. We had the Tofield Scouts, the Tofield Guides, the Augustana Wildlife Club, University of Alberta students, NAIT Biological Sciences group, Tofield Outdoor Club, Sherwood Park Junior Forest Wardens, Tofield Junior Forest Wardens, University of Alberta Outdoors Club, and other groups come to see saw-whet banding. This year we hosted two Tofield Family Owl Nights through the Tofield Library (89 people attended).



The Annual Steaks and Saw-whets event was once again very successful. We had over 50 people each night that observed saw Saw-whet owls being banded and released. We had lovely looks at the flying squirrels at the feeders and crane migration.

We attended the John Janzen Nature Centre Free Day in September and had a display and banding demo. We also set up a display at the Don't Hibernate event in Tofield. We gave 8 talks for three schools (165 students) at the Explore More event at Chester Ronning school in Camrose.



In collaboration with Environment Canada (Brenda Dale) we hosted a three day banding workshop on ageing techniques led by Ken Burton. We had representatives from Alberta and the Yukon attend this great learning experience. Thanks to Brenda Dale for continuing to help banding stations with training!!

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