



Beaverhill Bird Observatory
Fall Report 2018

By
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Executive Summary

The Beaverhill Bird Observatory's fall migration monitoring was conducted by Head Biologist Kevin Methuen, and Assistant Biologists Emily Grose and Sara Pearce Meijerink along with Stephanie Thunberg who was the songbird intern. Migration monitoring was conducted from July 20th to October 10th, and we reopened migration nets on October 17th to 19th to ensure all migrants had left the area. A daily census continued until October 19th to visually account for other late migrants. BBO staff operated thirteen mist nets and recorded 2029 captures of 62 species, resulting in an overall capture rate of 49.15 birds per 100 net-hours. Owl monitoring numbers were average this year, with 322 total captures. Staff, dedicated volunteers, student interns, and board members completed numerous education and outreach activities.

Migration Monitoring

Thirteen mist-nets (2, 2X, 8, 9, 9X, 50, 51, 52, 53, 54, 55, 56, and 57) were operated from July 20th to October 10th and then reopened from October 17th to October 19th on days that were above zero degrees Celsius, relatively calm, and free of precipitation. A total of 4127.65 net-hours was accumulated, despite a snowy September which did not allow staff to achieve full hours on several days (Table 1). 2029 birds were captured, of which 1692 were newly banded. This marked the highest number of captures in autumn since 2001, and the highest number of banded birds since 2001! Species diversity was high this year, with 62 distinct species captured, the most since 2006!

Table 1. Numbers of captures, mist-netting effort, capture rates, and number of species caught during fall migration monitoring at the Beaverhill Bird Observatory since 2003.

	2003	2004	2005	2006	2007	2008	2009	2010
Total Captures	1315	975	1256	1969	1079	892	875	880
Birds Banded	1093	818	1089	1525	952	723	718	708
Net hours (NH)	3818	3229	2787	3476	3534	3400	3671	3190
Capture Rate (birds/100 NH)	34.4	30.2	45.1	56.6	30.5	26.2	23.8	27.6
Species Captured	57	60	59	63	52	58	51	60

	2011	2012	2013	2014	2015	2016	2017	2018
Total Captures	701	978	631	738	1641	1721	1918	2029
Birds Banded	589	776	628	618	1393	1390	1620	1692
Net hours (NH)	3678	3683	3144	2565	4478	4174	4202	4128
Capture Rate (birds/100 NH)	19.1	26.6	20.1	28.8	36.6	41.2	45.6	49.15
Species Captured	53	57	45	46	58	53	52	62

The five most commonly caught species this fall were Myrtle Warbler (572 birds captured, representing 28.2% of all captures), Least Flycatcher (341 captures, 16.8% of total), Tennessee Warbler (172 captures, 8.5% of total), Yellow Warbler (156 captures, 7.7% of total), and Orange-crowned Warbler (105 captures, 5.2% of total). These five species accounted for 1346 or 66% of the 2029 birds caught (Table 2).



Top Left: Bay-breasted Warbler

Top Right: Black-throated Green Warbler

Bottom: Cape May Warbler

As always, there were certain days of migration that made for unforgettable experiences at the banding lab. Noteworthy captures this fall included a Cape May Warbler, a Bay-breasted Warbler, a Black-throated Green Warbler, and a Pileated Woodpecker! All four of these species were very rare captures that have not been seen at the lab for a few years. Further, on September 18th, 19th and 20th we were rushing from net to net in order to process a total of 608 captures, 437 of which were Myrtle Warblers! The middle day,

September 19 was most unusual. We caught 12 birds in the first 5.5 hours. Then on the last net check to close the nets we caught 154 birds!

Table 2. Total number and type of capture per species during 2018 fall migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2018 at BBO, Return captures were banded at BBO in a previous year, the Foreign capture was banded at a location other than BBO, and Other captures were caught in a mist net but released un-banded, or caught more than once in a single day.

Species	Banded	Repeat	Return	Foreign	Other	Total
American Goldfinch	4					4
American Redstart	47	1			4	52
American Robin	1	1			1	3
American Tree Sparrow	13				1	14
Baltimore Oriole	1					1
Bay-breasted Warbler	2	1				3
Black and White Warbler	2					2
Black-capped Chickadee	30	52	12		7	101
Blackpoll Warbler	15				1	16
Black-throated Green Warbler	1					1
Blue Jay					1	1
Blue-headed Vireo	2					2
Brown Creeper	2					2
Canada Warbler	5				2	7
Cape May Warbler	2					2
Cedar Waxwing	3					3
Chipping Sparrow	1					1
Clay-coloured Sparrow	10	2			1	13
Common Yellowthroat	1					1
Connecticut Warbler	3					3
Downy Woodpecker	8	7	1			16
Golden-crowned Kinglet	2					2
Gray Catbird	1	1				2
Gray-cheeked Thrush	1					1
Hairy Woodpecker	2	4	2			8
Hermit Thrush	8	1			2	11
House Wren	41	24	2		4	71
Least Flycatcher	269	46	5		21	341
Lincoln's Sparrow	6					6
MacGillivray's Warbler	1					1

Magnolia Warbler	28	2			2	32
Marsh Wren	2					2
Mourning Warbler	2					2
Myrtle Warbler	552	5			15	572
Nashville Warbler	2					2
Northern Flicker	1					1
Northern Waterthrush	7				1	8
Orange-crowned Warbler	101	2			2	105
Ovenbird	34				1	35
Philadelphia Vireo	1					1
Pileated Woodpecker	1					1
Red-breasted Nuthatch	12				1	13
Red-eyed Vireo	5					5
Red-winged Blackbird	3				3	6
Rose-breasted Grosbeak	3	1	3			7
Ruby-crowned Kinglet	15				1	16
Ruby-throated Hummingbird					1	1
Slate-coloured Junco	12					12
Song Sparrow	8				1	9
Swainson's Thrush	33		1		2	36
Tennessee Warbler	141	23	1	1	6	172
Trail's Flycatcher	30	1			1	32
Warbling Vireo	4	1	1			6
Western Palm Warbler	43	2			1	46
Western Wood-Pewee	1					1
White-breasted Nuthatch	4	3			2	9
White-crowned Sparrow					1	1
White-throated Sparrow	10					10
Wilson's Warbler	27	2			1	30
Yellow Warbler	119	27	6		4	156
Yellow-bellied Flycatcher	2					2
Yellow-bellied Sapsucker	5	2				7
Totals	1692	211	34	1	91	2029

Staff surveyed birds along a standardized census route each morning between July 20th and October 19th. Each year, census results are combined with other incidental observations and daily banding totals to produce a Daily Estimated Total (DET) of the number, and type of species migrating through the Beaverhill Natural Area. This fall, raptor highlights included multiple sightings of Peregrine Falcon and Northern Goshawk. We observed tens

of thousands of Greater White-fronted Geese, Snow Geese and Canada Geese migrating through the area which attracted several visitors towards the end of September. From early to mid-October, we observed a good number of Tundra Swans, Golden-crowned Kinglets, a couple of Brown Creepers, and Rough-legged Hawks moving through. We were also lucky enough to see a couple of Northern Saw-whet Owls near the lab and a Great-horned Owl while on census this fall.

Owl Monitoring



A Great- horned Owl that was banded at BBO this autumn.

Head Biologist Kevin Methuen and Assistant Biologists Sara Pearce Meijerink and Emily Grose led BBO’s owl monitoring program this fall, along with owl interns Jeremy Lambe, Jonathan Farr, and Stephanie Thunberg. Four mist nets with a Saw-whet owl audio lure were utilized from September 1st to November 5th, two mist nets with a Boreal owl audio lure were set from October 15th to November 5th, and one mist net with a Long-eared owl audio lure was set from September 1st to November 5th. Nets were only operated on evenings that were calm, warmer than minus 15 degrees Celsius, and relatively free of precipitation.

825.35 playback hours were accumulated (357.4 playback hours of the Northern Saw-whet Owl call, 336.95 playback hours of the Long-eared Owl call and 131 playback hours of the Boreal Owl call) this autumn. For a total of 322 owl captures (295 Northern Saw-whet Owls, 26 Long-eared Owls, and 1 Great-horned Owl) which resulted in a capture rate of 39 owls/100 playback hours (Table 3).

Table 3. Total number and type of capture per species during 2018 owl migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2018 at BBO, Return captures were banded at BBO in a previous year, Foreign captures were banded at a location other than BBO, and Other captures were caught in a mist net but released un-banded, or caught more than once in a single day.

Species	Banded	Repeat	Return	Foreign	Other	Total
Northern Saw-whet Owl	284	6	1	3	1	295
Long-eared Owl	24	2				26
Boreal Owl						0
Great-horned Owl	1					1
Total	309	8	1	3	1	322



Left: Kevin holding a Long-eared Owl he just banded.

Education and Outreach



Steaks and Saw-whets event on September 28th. Everyone intrigued watching Sara band a wild Northern Saw-whet Owl.

Both nights of our annual fall fundraiser, Steaks and Saw-whets, sold out on September 28th and 29th. Everyone had a great night at the observatory and enjoyed interacting with Ricki, one of our Northern Saw-whet education owls. Guests that stayed later in the evening got to enjoy all the stars and were thrilled to see wild Saw-whet Owls go through the banding process, as well as flying squirrels near the bird feeders. A very special thanks to all board members and volunteers who contributed this year!

A representative from Telus Edmonton Community Board Fund presented BBO with an oversized cheque on September 27th for \$20,000! This money will help support BBO's outreach events throughout the winter. We are extremely grateful for their contribution to our Education Program!

Emily and Stephanie (intern) represented the BBO at the Wildbird General Store promoting BBO's programs with Rickie, the Saw-whet. The following weekend Emily and Martijn (volunteer) promoted the BBO at Wild Birds Unlimited with Ray, the Saw-whet, alongside Gord Court and the Colonel, a Barred Owl. A big thanks to both stores for their continued support!

We had several groups visit the lab this fall for songbird banding. Laurie Hunt's class joined us from NAIT, and Chris Olsen's class visited from Lakeland College in Vermillion. We also had a number of groups visit for owl banding this fall: Tofield Junior Forest Wardens, Friends of Elk Island Society, the Tofield Library, University of Alberta Zoology Club,

University of Alberta Chapter of the Wildlife Society Club (2 nights), University of Alberta Outdoors Club (2 nights), University of Alberta Wildlife Society, Augustana Campus Wildlife Club, Augustana Campus Wildlife Diversity of Alberta Class, and a small private group. In addition, families and other members of the public drop in to watch owls being banded. Thank you to everyone for the support!

BBO hosted five interns this autumn who studied bats, songbirds, and owls. Watch for a couple of their reports which will be posted on the BBO website later.

School presentations began later this fall and will continue to operate throughout the winter. There have been some noteworthy highlights thus far. Emily dressed up as a Hogwarts professor from Harry Potter and gave a presentation to Strathcona Grade 10 high school students. The students absolutely loved it! Sara and Meghan (volunteer) also dressed up as witches for a Harry Potter festival they attended with Rickie and Ray (Northern Saw-whet education owls) in Edmonton. Emily also gave a presentation to university students from Augustana on the Owls of Alberta. Kevin represented BBO at the University of Alberta Alumni open house with Rickie the Northern Saw-whet Owl. He also represented BBO at the annual local "Don't Hibernate Fair" in Tofield with Rickie. Emily went to an owl themed birthday party with Colonel, the Barred Owl, and gave a brief educational presentation. All the guests in attendance really enjoyed petting Colonel.



Kevin receiving the cheque from Dr. Ruth Collins-Nakai on behalf of the BBO from Telus Edmonton Community Board Fund to support our Education and Outreach programs.

New Bunkhouse

For over 30 years, Raven's Roost, the affectionate name of our first bunkhouse, has kept staff and overnight visitors safe from the elements and most mosquitoes. However, Raven's Roost's exterior cover of pressboard allowed other occupants to enter at will including flying squirrels, bats, house wrens and assorted wasps among other critters. Thus, the BBO board decided it was time to replace the bunkhouse. The Sherwood Park Fish and Game Association heard about our funding needs and very generously gave BBO \$10,000 towards the building. We had already budgeted \$6,000 from our savings. BBO members made up the difference so that we could proceed with the \$24,000 purchase. We contracted Knotty Pine Cabins, who gave us a generous 10% discount, to supply the building pieces on the 18th of August. Then the real work began. Al Degroot and John Scott stepped into the role as carpenters. They both devoted two or more days per week over two months to assemble the beautiful and very functional new bunkhouse. **A HUGE THANK YOU** to both of them, to Wes Olson who helped and loaned his generator, scaffolding, compressor and nail guns. And a big thank you to the many other volunteers, staff, and board members who helped Al and John complete this large project.



The demolition of Raven's Roost took only 4 hours of effort with a dedicated group of volunteers to be loaded onto John Scott's trailer and headed to the Ryley dump. Some of the lumber and insulation was saved.



Left: Al DeGroot and John Scott with the completed new Raven's Roost bunkhouse. Right: Douglas Burton, President of the Sherwood Park Fish and Game Association, presents the BBO's Geoff Holroyd with a cheque for \$10,000.



Other Activities

When BBO staff are not busy with banding or interpretation, we complete a variety of other activities. This fall throughout the natural area, we erected six new maternity bat boxes that were built by volunteers and members Laurie Hunt, Phil and Helen Trefry and Geoff Holroyd. Our bat interns began monitoring their productivity this fall and the boxes will continue to be monitored next spring. The BBO also received new official Alberta Park signs which staff will put up throughout the natural area next spring. Thank you to Alberta Environment and Parks, Greg Ottway, Kevin, and Geoff who organized the sign order, and arranged for the pick-up/storage of the new signs. We are very excited to put up these fancy signs next year!

As the season ended, Kevin Methuen accepted a great new job, a promotion from his position as BBO's Head Biologist. We thank Kevin for several years work for BBO as Assistant and Head Biologist and wish him well in his new career. By early January he will be high above the Arctic Circle! We are pleased to announce the promotion of Sara Pearce Meijerink as our new Head Biologist effective 1 December 2018. Together with Emily Grose, they will be a great team to move BBO's winter program forward.

Acknowledgements

The conservation and outreach activities we conduct each year would simply not occur without the ongoing support we receive from our funders, volunteers, board members, and interns.

Thank you to everyone who made Steaks and Saw-whets a success: Geoff Holroyd, Irene Crosland, Helen and Phil Trefry, Laurie Hunt, Alyssa Bohart, Thea Carpenter, Andra Bismanis, Rolly Perrott, Steve Anderson, BBO staff, Jeremy Lambe, Stephanie Thunberg, and Johnathon Farr.

Thank you to our long-term volunteers this fall: Irene Crosland for volunteer banding on a weekly basis and providing local support to the BBO staff as our field mom and for watching over the lab in the winter, Al Degroot for all his carpentry work this fall, for winterizing the lab and looking after our solar power, John Scott for all of his carpentry work this fall, Helen and Phil Trefry for providing a second home to BBO staff and housing our two educational Northern Saw-whet Owls. Thank you to Gerry Beyersbergen, Emily Cicon, Meghan Jacklin, Alyssa Bohart, Geoff Holroyd, Helen Trefry and Marie-Eve Bedard for assisting with owl banding. Also, thanks to Greg Ottway, and Lawrence Lam for your assistance with banding and helping staff complete other tasks.

Thanks to Geoff Holroyd for mowing the trails in the Natural area, winterizing the lab, for editing grant applications and reports and for assisting BBO staff when required. Thank you to Helen Trefry for producing another amazing edition of the Willet, and to Laurie Hunt and Art Hughes of Fort Saskatchewan Naturalist's Club for coordinating our internship program. Thanks to Rose Scott for handling BBO's finances, and Darren MacGregor for looking after the BBO's website. Thank you to Steve Anderson for producing an amazing video of Steaks and Saw-whets for the Aviva Grant. A big thanks to all other board

members who helped with various tasks like Steaks and Saw-whets, outreach events and banding. The BBO could not run without all the support we receive from our board members.

A huge thanks to all other volunteers, and interns who helped with a variety of tasks and activities. You make the BBO an awesome place!

Thank you to **Steve and Kay from the Wildbird General Store** for donations and providing us with the monthly and winter in-kind support of bird seed. Thank you **Wild Birds Unlimited** for your donation to BBO this fall. Thank you, **Connie, Diane, Susan, and Ashley at the Tofield Library** for your daily and weekly support.

Finally, the BBO extends a massive thank you to our funders. Our 2018 fall operations were made possible by financial support from the Alberta Conservation Association, Alberta Gaming and Liquor Commission, Telus Edmonton Community Board Fund, TD Friends of the Environment, Nature Canada's Labatiuk Nature Endowment Fund, Bird Studies Canada's Baillie Fund, the Alberta Community Environment Action Grant Program, Sherwood Park Fish and Game Association, AVIVA, Serving Communities Internship Program (SCiP), and personal donations.
THANK YOU!!