



Beaverhill Bird Observatory
Fall Report 2016

By
Kevin Methuen

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Executive Summary

The Beaverhill Bird Observatory's fall migration monitoring was conducted by Head Biologist Kevin Methuen, along with Assistant Biologists Meghan Jacklin and Emily Cicon. Migration monitoring was conducted from July 20th to October 20th, making it one of our longest fall monitoring periods in recent BBO history. BBO staff operated thirteen mist nets through these dates and recorded 1721 captures of 53 species, achieving an overall capture rate of 41.2 birds per 100 net-hours. Previous owl monitoring records were shattered this fall, and many other activities were completed by staff, dedicated volunteers, student interns, and board members.

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 20th on days that were above zero degrees Celsius, relatively calm, and free of precipitation. A total of 4173.5 net hours were accumulated, although the wet conditions we encountered in the spring and summer persisted through the fall, making banding impossible on a few days. A number of mornings in early October were also lost due to sub zero temperatures. A total of 1721 birds were captured, of which 1390 were newly banded (three fewer than were banded in fall of 2015). Species diversity was average, with 53 species captured (Table 1).

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 2001.

	2001	2002	2003	2004	2005	2006	2007	2008
Total Captures	2095	1734	1315	975	1256	1969	1079	892
Birds Banded	1758	1464	1093	818	1089	1525	952	723
Net hours (NH)	3679	4174	3818	3229	2787	3476	3534	3400
Capture Rate (birds/100 NH)	57.0	41.5	34.4	30.2	45.1	56.6	30.5	26.2
Species Captured	56	62	57	60	59	63	52	58

	2009	2010	2011	2012	2013	2014	2015	2016
Total Captures	875	880	701	978	631	738	1641	1721
Birds Banded	718	708	589	776	628	618	1393	1390
Net hours (NH)	3671	3190	3678	3683	3144	2565	4478	4174
Capture Rate (birds/100 NH)	23.8	27.6	19.1	26.6	20.1	28.8	36.6	41.2
Species Captured	51	60	53	57	45	46	58	53

The five most commonly caught species this fall included Least Flycatcher (355 birds captured, representing 21% of all captures), Myrtle Warbler (328 captures, 19% of total), Slate-colored Junco (113 captures, 7% of total), and a tie for fourth between Black-capped Chickadee and Tennessee Warbler (96 of each species captured, and each represented 6%

of total). These five species accounted for 1066 of all captures, or 62% of the 1721 birds caught. See table 2 for full banding results.



As always, there were certain days of migration that made for unforgettable experiences at the banding lab. Noteworthy captures this fall included four Brown Creepers, thirteen Golden-crowned Kinglets, three LeConte’s Sparrows, three Nashville Warblers, five Ruby-throated Hummingbirds, one Philadelphia Vireo, and one Northern Shrike! On September 2nd we were rushing from net to net in order to process 128 captures, 86 of which were Myrtle Warblers!

Table 2. Total number and type of capture per species during 2016 fall migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2016 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
Alder Flycatcher	16					16
American Goldfinch	10	2				12
American Redstart	27				1	28
American Robin	2					2
American Tree Sparrow	49	5			2	56
Black-and-white Warbler	4				1	5
Black-billed Magpie	1					1

Black-capped Chickadee	25	64	4		3	96
Blackpoll Warbler	11					11
Brown Creeper	4					4
Cedar Waxwing	4					4
Chipping Sparrow	4					4
Clay-colored Sparrow	51	12	2		3	68
Common Yellowthroat	4		1			5
Downy Woodpecker	6	3				9
Eastern Phoebe	1					1
Fox Sparrow	2					2
Golden-crowned Kinglet	13	1				14
Gray Catbird	2	3				5
Gray-cheeked Thrush	1					1
Hairy Woodpecker	1	1	1			3
Hermit Thrush	14	12				26
House Wren	43	19			3	65
Least Flycatcher	274	62	7		12	355
LeConte's Sparrow	3					3
Lincoln's Sparrow	5					5
Magnolia Warbler	22				1	23
Myrtle Warbler	307	16			5	328
Nashville Warbler	3					3
Northern Shrike	1					1
Northern Waterthrush	7					7
Orange-crowned Warbler	69	1			1	71
Ovenbird	22					22
Palm Warbler	5					5
Philadelphia Vireo	1					1
Red-breasted Nuthatch	4					4
Red-eyed Vireo	7					7
Rose-breasted Grosbeak	4	1	1		1	7
Ruby-crowned Kinglet	7					7
Ruby-throated Hummingbird					5	5
Slate-colored Junco	84	28			1	113
Song Sparrow	11				1	12
Swainson's Thrush	25					25
Tennessee Warbler	87	7	1		1	96
Traill's Flycatcher	14				2	16
Warbling Vireo	37	11	4		3	55
White-breasted Nuthatch	3				1	4
White-crowned Sparrow	5					5
White-throated Sparrow	7					7
Wilson's Warbler	13					13
Yellow Warbler	63	14			1	78
Yellow-bellied Flycatcher	2					2
Yellow-bellied Sapsucker	3					3
Totals	1390	262	21	0	48	1721

Staff surveyed birds along a standardized census route each day between July 20th and October 20th. 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. Compared to previous fall DET data, many sightings are worth noting. Highlights included a family of five Long-eared Owls that we consistently saw in late July and early August, a Yellow Rail calling from Beaverhill Lake throughout August, a Broad-winged Hawk that hunted in the Natural Area for the last two weeks of August, 500 Sandhill Cranes on September 8th, 1000 Greater White-fronted Geese and 600 Snow Geese on October 2nd, and 82 Swan spp. on October 19th.

Owl Monitoring

2015 was a record year of owl monitoring for the observatory, and somehow the phenomenal owl numbers continued in 2016. BBO records were set for total captures of Northern Saw-whet Owls (566) Boreal Owls (8) and Long-eared Owls (9). The previous record for Saw-whet captures was 504, set in fall 2015. The breakdown of banding results can be viewed in Table 3 below. Another record was broken on October 22nd, when staff captured 40 owls in a single night, surpassing the previous record of 29 set in fall 2015.

Table 3. Total number and type of capture per species during 2016 owl migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2016 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	541	10		15		566
Boreal Owl	8					8
Long-eared Owl	7				2	9
Totals	556	10	0	15	2	583

Assistant Biologist Meghan Jacklin led the BBO's owl monitoring efforts this fall. The observatory was fortunate to have Sara Pearce-Meijerink, an experienced bander who stayed at the lab and volunteered for the entirety of the owl monitoring season, and Alyssa Bohart from the University of Alberta who was an owl monitoring intern. Head Biologist Kevin Methuen and Assistant Biologist Emily Cicon also took part in this program when they weren't busy banding songbirds.

Four mist nets and a Saw-whet audio lure were utilized from September 2nd to November 17th on every night that banding was possible. An additional two mist nets and a Long-eared audio lure were used every second night between September 2nd and 29th, and two nets and a Boreal owl audio lure were utilized every possible night from October 14th to

November 17th. 2,116 net hours were accumulated and the overall capture rate was 27.6 birds/100 net-hours.



Education and Outreach

Our annual Steaks and Saw-whets Supper fundraiser was held at the observatory on September 30th and October 1st. Both nights were sold out and despite a bit of rain, guests enjoyed their steak dinner and were thrilled to interact with Ray the Saw-whet (our education owl) in addition to wild owls that were caught and banded. A very special thanks to all board members and volunteers who contributed this year!

Emily and Meghan represented BBO at the Love the Lake Day in August that was organized by the Pigeon Lake Watershed Alliance. Ray the Saw-whet was a hit, in addition to the bird banding (two mist nets were operated). 217 people visited the BBO booth and were taught all about our programs and bird banding. Emily also gave an owl presentation to kids at the Strathcona County Library in September.



Kevin dressed up as a Ringed-necked Pheasant and spent the Saturday before Halloween at the Wildbird General Store promoting BBO's programs. On the same day, Meghan and Ray, the Saw-whet, were at Wildbirds Unlimited engaging with the public, alongside Gord Court and a few other birds of prey. A big thanks to both stores for their support!

The BBO hosted a diverse array of groups and students for both songbird and owl banding this fall. Thank you to the following groups who visited the banding lab: Chris Olsen's wildlife students from Lakeland College; Laurie Hunt's environmental students from NAIT; Glen Hvenegaard's bird students from the U of A's Augustana campus; the U of A outdoors club; Jeff Manchuk and his TOECC group; the Augustana Wildlife Society; and the Friends of Elk Island Club.

Starting this fall and continuing into this winter the BBO is growing its education program, which is being operated by Meghan and Emily. This program will expand the reach of the observatory to school groups and other organizations and will allow us to educate the public about the threats that face birds, and empower people to take action to conserve bird species. Each presentation is complete with a live owl! If you are interested in booking a presentation, please send an email to educationbeaverhillbirds@gmail.com

Other Activities

In addition to banding and education, BBO staff spent many afternoons on other projects with help from board members, volunteers, and interns. Fence “flags” were installed on 2.2 km of fence that forms the north boundary of the Natural Area. This boundary area lies within Beaverhill Lake and in dry years it becomes a grassland, which is home to many species of birds and mammals. These fence flags are cut from long strips of vinyl undersill trim, and serve to make the barb wire fence more visible to wildlife in order to reduce collisions and mortality associated with these fences.



The BBO continued to increase roosting opportunities for bats in the Natural Area, while monitoring their activity. 12 bat boxes were checked twice a week this fall, with either one or two bats being found in each box on approximately every second check. Staff and volunteers installed an additional 26 boxes this fall in order to spread out the availability of roosting sites in the Natural Area. Jody Rintoul from the U of A’s Augustana campus operated the BBO bat detector in order to determine which species are using the Natural Area. A big thanks to Jody for volunteering her time and lending us her expertise on bats.

Acknowledgements

As always, the work we do for the birds would simply not be possible without the tremendous support we receive from our funders, volunteers, board members, and interns.

Thanks to Al Degroot for fixing our picnic tables ahead of Steaks and Saw-whets, taking us raptor banding, and winterizing the lab. Thanks to Irene Crosland for volunteer banding on

a weekly basis and providing local support to the BBO staff as our field mom. Thanks to Geoff Holroyd for editing grant applications and reports including this one, buying and cutting fence flags, winterizing the lab, installing the world's largest bird feeder, and looking after the BBO staff. Thanks to Helen Trefry for lending us her truck to patch the road, looking after the BBO staff, and with her husband Phil for hosting Ray, the Saw-whet Owl. Thanks to Rose Scott for handling BBO's finances, and Darren MacGregor for looking after the BBO's website, including a huge effort in developing the new website (coming soon!) A big thanks to all other board members who helped with various tasks like website development, Steaks and Saw-whets, and banding.

Thank you to Sara Pearce-Meijerink for living at the lab and volunteering for over two months during the owl season. Thank you to Jeremy Lambe for banding on a weekly basis, and Steve Andersen for bringing the staff so many treats. Thanks to Robyn Perkins for help with songbird banding, Chris Vervoort for helping design our new bookmarks, and Alyssa Bohart for being our owl intern. And a thanks to Jim Beck and Gerry Beyersbergen for helping with owl banding.

A huge thanks to all other volunteers who helped with a variety of tasks and activities. Your time is greatly appreciated.

Thank you to Steve and Kay from the Wildbird General Store for providing us monthly in-kind support of bird seed. You are very generous, and run a great store.

The Tofield Library is the BBO afternoon office complete with couches to write reports, and the ability to access wifi, scan and print. Thank you Connie, Diane, Susan, Ashley, and Katelynn for your daily and weekly support.

Finally, the BBO extends massive thank yous to our funders. Our 2016 fall operations were made possible by financial support from the Alberta Conservation Association, Alberta Liquor and Gaming Commission, TD Friends of the Environment, Nature Canada's Labatiuk Fund, Bird Studies Canada's Baillie Fund, the Edmonton Community Foundation, and personal donations. THANK YOU!