



**Beaverhill Bird Observatory  
Spring Report 2015**

**By**

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## **Executive Summary**

The Beaverhill Bird Observatory's spring migration monitoring was conducted by Head Biologist Jonathan DeMoor, and Assistant Biologists Emily Cicon and Meghan Jacklin. Migration monitoring was conducted from May 1<sup>st</sup> to June 9<sup>th</sup>, with banding taking place on all but two days in this period. Staff opened 13 nets daily and recorded 810 captures of 45 species, for an overall capture rate of 28.3 birds per 100 net-hours. Various other monitoring and maintenance activities were conducted by staff, and interns and volunteers monitored the Tree Swallow and House Wren nest boxes. Several outreach and interpretation events were organized, hosting nearly 150 visitors to the lab and many more at the off-site Snow Goose festival.

## **Migration Monitoring**

Migration monitoring was conducted at the lab from May 1<sup>st</sup> to June 9<sup>th</sup>. In general, thirteen nets were opened, including five "old" nets: 2, 2X, 8, 9, and 9X, and all eight "new" nets established in 2014: 50, 51, 52, 52, 54, 55, 56, and 57 (see 2014 Annual Report for more details on the new nets).



Due to unusually mild, dry weather only one day of monitoring was missed completely (May 6, due to heavy snowfall), and banding occurred on all but two days (May 6 and May 16). As a result, more net-hours were accumulated than in any other year since 2000 with a total of 2859 hours out of a possible 3120 (91%) (Table 1).

**Table 1. Numbers of captures, mist-netting effort, capture rates, and number of species caught during spring migration monitoring at the Beaverhill Bird Observatory since 2000.**

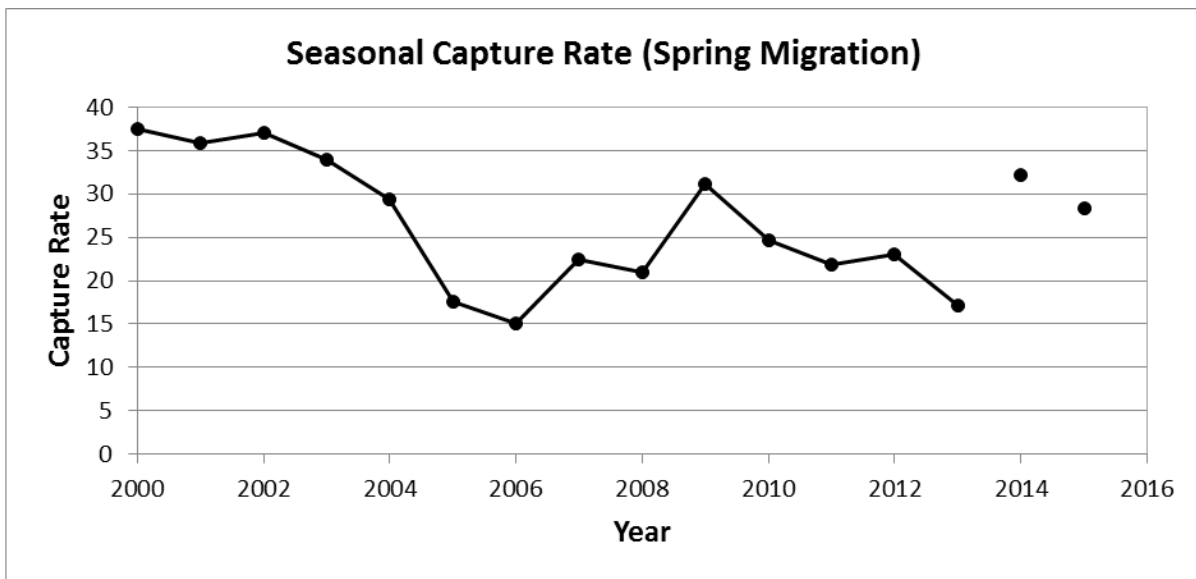
	2000	2001	2002	2003	2004	2005	2006	2007
Total Captures	875	629	950	754	532	276	242	408
Birds Banded	672	472	740	546	424	196	169	318
Net hours (NH)	2330	1756	2569	2219	1809	1570	1615	1813
Capture Rate (birds/100 NH)	37.6	35.8	37.0	34.0	29.4	17.6	15.0	22.5
Species	47	39	55	44	38	32	31	44

	2008	2009	2010	2011	2012	2013	2014	2015
Total Captures	382	500	497	412	459	324	841	810
Birds Banded	288	351	333	241	307	211	561	641
Net hours (NH)	1828	1608	2016	1884	1997	1884	2615	2859
Capture Rate (birds/100 NH)	20.9	31.1	24.7	21.9	23.0	17.2	32.2	28.3
Species	38	39	38	40	39	36	43	45

A total of 810 bird captures were recorded, of which 641 were newly banded. Of the 169 recaptures, 54 were returns of birds banded at BBO in previous seasons, and there were no recaptures of birds banded at other stations (i.e. foreign recaptures) (Table 2). Species diversity was above average, with 45 species captured (average is 40) (Table 1).

The overall capture rate for spring migrations was 28.3 birds captured per 100 net-hours, which is above the average for the past ten years (Figure 1). However, it is not possible to compare this number directly, due to the use of a combination of previously-established “old” nets and the more productive “new” nets established in 2014.



**Figure 1. Capture rates during spring migration monitoring at the Beaverhill Bird Observatory since 2000**

The daily capture rate increased steadily to a peak on May 25<sup>th</sup> when 56 captures were recorded for a daily capture rate of 72 birds/100 NH (Figure 2). Daily capture rates fell quickly following the peak, to a minimum of approximately 15-20 birds/100 NH.

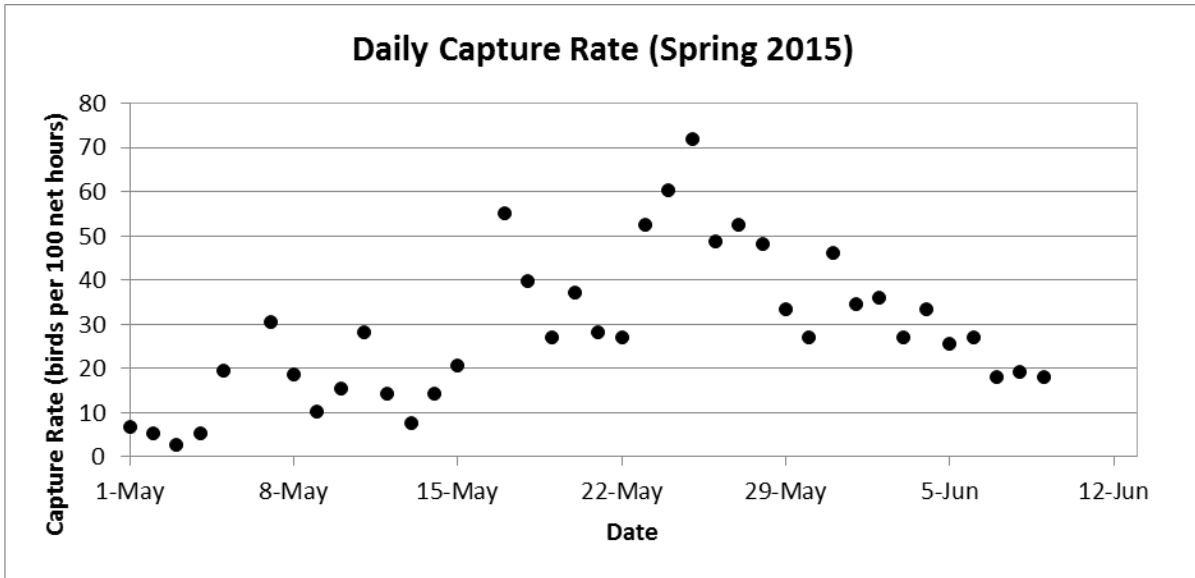


Figure 2. Daily capture rates during spring migration monitoring at the Beaverhill Bird Observatory in 2015

The five most commonly captured species were Least Flycatcher (138 individuals captured 172 times, representing 21% of the total number of captures), Clay-colored Sparrow (110 individuals captured 143 times, or 18% of the total captures), Swainson's Thrush (74 birds caught 74 times, 9% of captures), Yellow Warbler (54 birds caught 74 times, 9% of captures), and House Wren (51 birds caught 68 times, 8% of captures). These top five species accounted for 66% of the total number of captures. Full details of the number, and type, of captures per species are presented in Table 2.



**Table 2. Total number and type of capture per species during 2015 spring migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2015 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.**

Species	Individuals	Captures					Total
		Banded	Repeat	Return	Foreign	Other	
Sharp-shinned Hawk	1	1					1
Hairy Woodpecker	2	1	1	1			3
Yellow-bellied Sapsucker	4	3	1	1			5
Ruby-throated Hummingbird	2					3	3
Eastern Phoebe	1	1					1
Yellow-bellied Flycatcher	3	3					3
Alder Flycatcher	16	16					16
Least Flycatcher	138	120	34	18			172
Brown-headed Cowbird	9	6	2	3			11
Baltimore Oriole	3	1	2	2			5
American Goldfinch	10	10					10
Savannah Sparrow	3	3					3
White-crowned Sparrow	2	2					2
White-throated Sparrow	40	40					40
Chipping Sparrow	14	14					14
Clay-colored Sparrow	110	107	32	4			143
Slate-colored Junco	1	1					1
Song Sparrow	3	3					3
Lincoln's Sparrow	16	16	2				18
Rose-breasted Grosbeak	5	4		1			5
Tree Swallow	7	3		4			7
Warbling Vireo	8	7		1			8
Blue-headed Vireo	1	1					1
Orange-crowned Warbler	8	8					8
Tennessee Warbler	3	3					3
Yellow Warbler	54	46	20	8			74
Myrtle Warbler	24	24					24
Magnolia Warbler	5	5					5
Chestnut-sided Warbler	1	1					1
Blackpoll Warbler	6	6					6
Western Palm Warbler	2	2					2
Ovenbird	2	2					2
Northern Waterthrush	4	4					4
Mourning Warbler	3	3					3
Common Yellowthroat	2	2					2
Wilson's Warbler	1	1					1
American Redstart	13	13					13
Gray Catbird	7	6		1			7
House Wren	51	48	15	5			68
Black-capped Chickadee	6	2	4	4			10
Wood Thrush	1	1					1
Gray-cheeked Thrush	15	15					15
Swainson's Thrush	74	74					74
Hermit Thrush	4	4					4
American Robin	9	8	2	1			11
<b>Total</b>	<b>691</b>	<b>641</b>	<b>115</b>	<b>54</b>		<b>3</b>	<b>810</b>

Several notable captures include: a seven year-old Yellow Warbler first banded in the summer of 2008 as a hatch year bird; a Chestnut-sided Warbler, which is on the far eastern edge of its range and only the 3<sup>rd</sup> record at BBO in recent years; and a Wood Thrush, which is well outside of its normal breeding range in the northeastern US, and only the 8<sup>th</sup> confirmed record of a Wood Thrush in Alberta.



A standard census route was conducted every day except for May 6, and combined with other incidental observations and the daily banding totals to derive a Daily Estimated Total (DET) of the number, and type, of birds migrating through the Beaverhill Natural Area. The most commonly detected species included Greater White-fronted Goose (1515 detections on 7 days), Canada Goose (683 detections on 27 days), Sandhill Crane (444 detections on 6 days), Tree Swallow (1278 detections on 29 days), and Least Flycatcher (647 detections on 22 days).

### **Other Banding**

In addition to regular mist-netting and banding for migration monitoring, staff banded Mountain Bluebird chicks at three nest boxes: 1 in the “T” or “spiral” Tree Swallow grid, and two in the “R” boxes along Township Road 510, with a total of 13 chicks banded.

## Interns & Other Research

Seven interns started their projects for the year, including: three interns monitoring the Tree Swallow grids, two interns monitoring the House Wren grids, and one intern conducting spot-mapping surveys in the newly established forest breeding bird grid, and one intern surveying butterflies. One additional intern, who completed his internship on May 29, assisted with spring migration and various additional tasks, and submitted a report investigating differences in the arrival times of Yellow-rumped Warblers by age and sex. A PhD student from the University of Alberta came out to monitor several Tree Swallow boxes as part of her study on the effect of pollution on Swallow plumage. Two volunteer board members checked for geolocators on Tree Swallows in the third year of a study to determine the annual movements of this aerial insectivore in collaboration with the University of Guelph and Bird Studies Canada.

## Outreach & Interpretation

With visitors to the lab nearly every day (approximately 50 individuals this spring) across a broad range of age and experience, staff were kept busy with daily interpretation opportunities. Whenever possible, visitors to the lab were encouraged to take advantage of the new \$10 lifetime membership rate to become BBO members.

International Migratory Bird Day was on the 23<sup>rd</sup> of May this year, and BBO staff hosted a group of nearly 30 children and parents organized by Nature Alberta. Activities included a banding demonstration, crafts, and a nature walk.

The annual Big Birding Breakfast was held the following week, on the morning of May 30<sup>th</sup>. Approximately 70 visitors came to the lab to enjoy the crêpes and bacon cooked up by master chef Janos Kovacs, and to learn about the ongoing activities at the lab. Staff banded 21 birds over the course of the morning, which provided ample opportunity for guests to get a close-up experience with a range of songbird species.



One issue of the Willet was produced by board member Helen Trefry and distributed to members and posted on the BBO website.

The BBO display is prominent at the Tofield Nature Center where BBO's activities are described to the many visitors to this town facility.

The reach of the Beaverhill Bird Observatory on social media, and Facebook in particular, continued to increase this spring. The BBO Facebook page had 536 "Likes" as of June 5<sup>th</sup>, and this number continues to gradually but steadily increase (Figure 3). Staff and two volunteer board members posted 35 updates to the page since March 31. The most popular post was about a Yellow Warbler originally banded in 2008 and recaptured this spring. This post was viewed 2,887 times and was liked, shared, or commented on by 159 people.

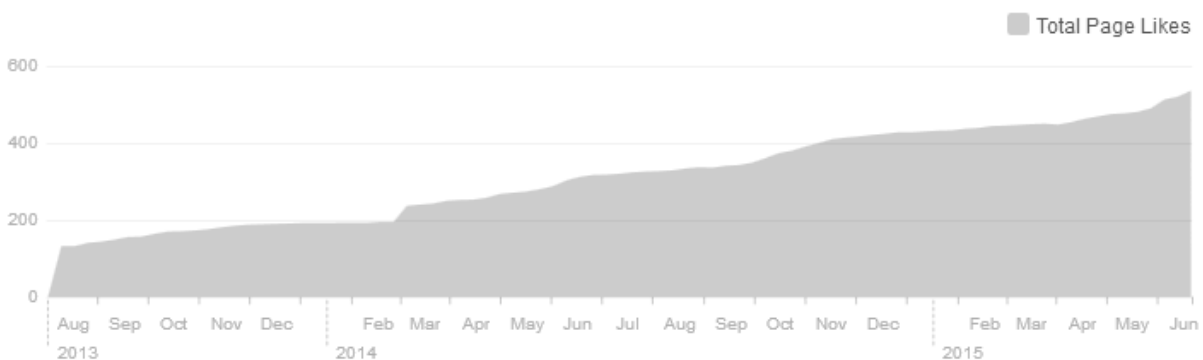


Figure 3. Number of Facebook Likes for the Beaverhill Bird Observatory Page

## Other Activities

Staff collected vegetation phenology data on the flowering and leaf-out dates of several common plant species around the lab and submitted these data to the PlantWatch project organized by Nature Alberta.

Staff, interns and volunteers also set up bat boxes in the natural area to increase roosting options for little brown bats., repaired Tree Swallow boxes, checked owl boxes, refreshed the signage throughout the natural area, made new ties for all the nets and new washable weighing tubes, created an inventory of bands, and a variety of other maintenance and upkeep tasks around the lab.

## Acknowledgements

Long-time BBO handyman, board member, and raptor bander, Al DeGroot was recognized at the Big Birding Breakfast for his many years of





service. Board Chair Geoff Holroyd presented Al with a beautiful American Kestrel print as a token of our appreciation for his efforts to maintain the buildings and the solar power system for over a decade.

As always, there is a long list of people to thank for their assistance, encouragement, and company this spring. Thanks to Al DeGroot, Jeff Manchuk, Helen Trefry, and Geoff Holroyd for their assistance getting the lab up and running. A big thank you to Geoff Holroyd, Jim Beck, Lisa Priestley, and Meaghan Bouchard for covering banding on several occasions so staff could take an occasional day off. Thanks to all the volunteers who came out to help with banding and other tasks around the lab, with special thanks to Victoria Hansen who came out to help for two weeks straight—your help was much appreciated. And finally, thanks to all the folks who dropped by the lab to visit—it is always a treat to get to share what we are doing out here with you!

Many thanks to our funders including Alberta Conservation Association, Shell Environmental Fund, Nature Canada's Labatiuk Fund, Canada Summer Jobs Program, TD Friends of the Environment, Edmonton Community Foundation, Bird Studies Canada's Baillie Fund, personal donations and Alberta Casino funds. These funds and volunteer contributions are vital to the operations of the bird observatory.

