



**Beaverhill Bird Observatory**  
**Spring 2024 Report**

**by Ethan Denton**

**July 15, 2024**

## INTRODUCTION

The Spring season at Beaverhill Bird Observatory has seen the Migration Monitoring program begin immediately following the Snow Goose Festival, on April 27<sup>th</sup>, running through to June 9<sup>th</sup> as well as nestling banding, the daily census, and the start of survey programs covering birds, bugs, and bats. Spring events were limited this year but included the ever-popular Big Birding Breakfast on June 2<sup>nd</sup> and 3<sup>rd</sup>. Overseeing these was Head Biologist Jana Teefy, supported by Assistant Biologists Jon van Arragon, Ethan Denton, Xavier Quantz, and Emelie Dykstra. Tansi the Great Horned Owl and Nina the Burrowing Owl both stayed onsite for stints and greatly assisted in educating both event groups and the visiting public.

Poor weather conditions throughout the spring brought a mix of mud, water, and ruts to TWP Rd. 626 (colloquially known as Rowan's Route). This made passage difficult for much of early May and forced the cancellation of events including the BBO's celebration of World Migratory Bird Day on May 13<sup>th</sup>. The downpour threatened to flood the observatory and fortunately, rain gave way to wind in the later parts of the month and operations were able to continue as expected. Census counts turned up Black-throated Green Warblers on May 1<sup>st</sup>, making for the earliest ever eBird record in Alberta. Other birds followed the trend, with Black-and-white Warbler, Connecticut Warbler, and Le Conte's Sparrow being observed earlier than their usual arrival dates.



*A female Black-throated Green Warbler was an unexpected spring capture!*

Staff-run surveys have all begun, with Jon running the Forest Breeding Bird Grid, Ethan's Shorebird Surveys kicked off on May 1<sup>st</sup>, and Emelie beginning the Least Flycatcher monitoring project shortly thereafter. Xavier is running the Marsh Monitoring Program, beginning in the final week of May with promising results. Nine student interns have begun 6 projects – with species specific long-term monitoring of Tree Swallows, House Wrens, and Purple Martins, and general population and diversity studies for Butterflies, Bats, and breeding birds in the grassland already underway. This is the first year for the Purple Martin intern project, and it's going to be very exciting to see the results. The observatory was also able to support Edmonton Nature Club's May Species count, sharing staff's observations during the 7-day period to contribute a total of 78 species.

## MIGRATION MONITORING

17 mist nets (13 standard, 4 experimental) were operated from April 28 to June 9 on mornings with temperatures above 0°C, wind below 20 km/h, and no precipitation. The standard net lanes are situated in young deciduous forest with little underbrush, and the experimental nets are found along the forest edge, in an area dominated primarily by willow shrubs and bordered by grassland. Exactly 900 birds were caught, of which 631 were newly banded and 242 were repeats or returns. A total of 46 species were captured, a reasonable comparison to last year's total. Captures of note include Eastern Kingbird (1), Grey-cheeked Thrush (8), Black-throated Green Warbler (1) and Common Grackle (1). Mourning Warblers were notably absent from this spring's list.

Over half of these 900 birds came from four species - Clay-coloured Sparrows (167 for 18.6% of total captures), Least Flycatchers (134 for 14.9%), Yellow Warblers (111 for 12.3%) and Swainson's Thrushes (100 for 11.1%). Baltimore Orioles were caught 84 times for 9.3%, and no other species made up more than 4% of total captures. As far as captures go, 900 is somewhat lower than the past two years (1047 in 2023 and 938 in 2022), while the capture rate of 40.54 birds per 100 net-hours is slightly higher than rates of 37.92 in 2023 and 33.35 in 2022. Since 2014, Swainson's Thrushes have averaged 40 captures or 5.4% of total captures in the spring season, making the 100 (11.1%) caught this year quite unusual. May 22-28 was the most productive week this year, with 374 birds caught! The cold, rainy conditions in mid-May created a perfect window for migration.



*An abnormally high number of Swainson's Thrushes were caught!*



*A dapper male Magnolia Warbler!*

After several days of strong winds and rain, the weather cleared and allowed migrating birds to fly once again on the evening preceding May 21<sup>st</sup>. When the sun rose through heavy cloud cover that morning, boreal breeding warblers had swarmed the forest. 117 birds were caught, a very high number for the spring season, and including an abnormally high percentage of warblers. Including census observations, 12 species of warblers passed through with high counts of Myrtle Warbler (28), Tennessee Warbler (26), Blackpoll Warbler (19), and American Redstart (14). Magnolia Warblers and a Black-throated Green Warbler were unusual spring captures. An unusually large number (27) birds were caught that were banded elsewhere. These band numbers have been submitted to the Canadian Wildlife Service who will let us know where they were banded.

**STANDARD NETS:**

The standard 13 mist nets (2, 2X, 8, 9, 9X, 50, 51, 52, 53, 54, 55, 56, 57) caught a total of 531 birds, of which 365 were newly banded and 151 were repeats and returns. With a total of 1932 net-hours, the standard nets saw a capture rate of 27.5 birds/100 net-hours. Least Flycatcher was the most common capture with exactly 100 (18.8%). They were followed by Swainson’s Thrush (88 for 16.6%), Baltimore Oriole (66 for 12.4%), Yellow Warbler (41 for 7.7%) and House Wren (29 for 5.5%). (See Table 2).

**Table 1.** Number of captures, net hours, species banded, and capture rates during spring migration in the standard nets since 2008

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

	2016	2017	2018	2019	2021†	2022	2023	2024
<b>Total Captures</b>	849	996	607	647	262	412	408	531
<b>Banded</b>	663	802	443	491	194	320	246	365
<b>Net hours (NH)</b>	3432	2031	2594	2503	1929	2257.5	2032.5	1932
<b>Capture rate (captures/100 NH)</b>	24.7	49.0	23.4	25.8	13.6	18.3	20.07	27.5
<b>Species Captured</b>	45	54	51	44	27	35	37	39

\*No banding was conducted in 2020 due to the COVID-19 Pandemic

**EXPERIMENTAL NETS:**

These 4 nets (58, 59, 60, 61) are located 25-50 m north of standard nets in grassland/ edge willow habitat that is just outside of the aspen forested area in which the standard nets are found. A total of 369 birds were caught in these nets, of which 266 were newly banded. 32 species were captured in the new nets with a capture rate of 128.3 birds per 100 net-hours – over four and a half times greater than the capture rate in the standard nets. Clay-coloured Sparrows topped the charts with 147 captures, 39.9% of total captures. Rounding out the list of most common birds captured in the experimental nets were Yellow Warbler (70 for 18.9%), Least Flycatcher (34 for 9.2%), Baltimore Oriole (19 for 5.1%), and Swainson’s Thrush (12 for 3.3%). (See Table 3)

## EVENTS

Events were limited this spring primarily due to the weather and the road conditions. World Migratory Bird Day celebrations had been scheduled for May 13<sup>th</sup> but were regrettably cancelled. Big Birding Breakfast, however, went ahead as planned and saw 98 visitors plus several volunteers onsite for a great crepe breakfast with a side of migration monitoring. Staff led a feather toss for the Tree Swallows and a guided hike to the weir in search of waterfowl and other birds. At the lab, the usual netting efforts brought in some fun birds including a female Blackpoll Warbler and several Baltimore Orioles. Staff also offered kids crafts and a window drawing station to educate the public on bird fatalities due to window strikes and Emelie put her artistic skills to use with a face painting station which was a definite hit with the kids. Thanks to our many volunteers who made this weekend so great!



*Anna Holroyd was delighted with her Blackburnian Warbler face paint*

## NESTLING BANDING

In addition to mist-netting efforts, staff banded some early nestlings. Like last year, the observatory monitored a Northern Saw-whet Owl nest. The nest produced 5 young, each of which was banded at the nest prior to fledging. The other early nest banded this spring was a Mountain Bluebird clutch nesting in one of the Tree Swallow boxes on the Road Grid. Staff were fortunate to band all 4 chicks as well as the adult male. The female was also caught and proved to be a returning bird originally banded here on a nest in 2022.

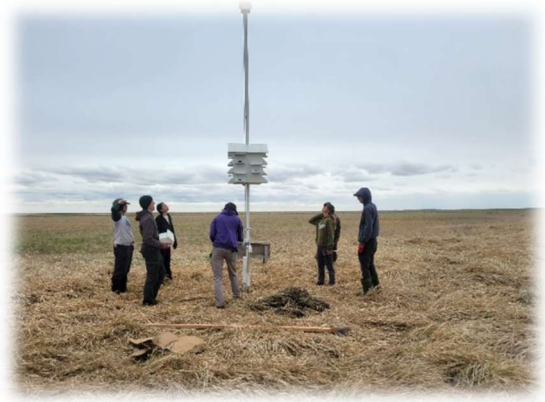


*Mountain Bluebirds nested on the road grid once again!*

*The caramel-coloured baby Saw-whets*

## NEST BOXES

With over 200 nest boxes, their maintenance takes extra effort. Geoff repaired boxes on Rowan's Route in April. A work bee in early May repaired boxes on the lakeshore grassland especially in the 'Weir' grid where cattle had done damage last autumn. Two new Purple Martin Boxes were built and donated by John Scott. We installed them in two work bees in May. As we installed the second box, martins were already fighting over space in the first box within 5 minutes of its installation. Thank you, John, for this huge expansion of our martin colony.



*Staff and volunteers erect a new Purple Martin house!*

## SNOW GOOSE FESTIVAL

The 12<sup>th</sup> edition of the Snow Goose Festival took place on April 27<sup>th</sup> & 29<sup>th</sup>, with 1504 visitors purchasing tickets for the various events. Foremost of course were the bus tours, as guides led packed school busses in search of Snow Geese. As the guides pointed out and identified many different species, scouts were patrolling the area and reporting back to ensure success. Other busses took visitors to the Natural Area, where they were able to watch bird banding and learn about the many ongoing projects the observatory runs. The Tofield Arena hosted the heart of the festival, where 20 different vendors set up booths to educate and entertain. 4 speakers presented here across the weekend. Nina the Burrowing Owl and Keith the Red-tailed Hawk were both present at the BBO's booth. Thanks to the Edmonton Community Foundation, Nature Alberta were able to run 6 busses from Edmonton, bringing new Canadians and their families out to participate in the festival. On Saturday evening, a banquet was held, and diners took part in a silent auction to raise funds for the festival.



*Helen Trefry & Keith meet a visitor!*

## VOLUNTEERS

As always, the BBO relies on the time, effort, and skill of our many incredible volunteers. Thanks especially to Janos, Helen, Geoff, Julianne, Andra, Christie, and Pete for their help with making Big Birding Breakfast such a success, Kelsey, Carmen, Pat, Cathy, Caitlyn, Joe and John Scott FOR THEIR HELP WITH THE WORK BEES, and Irene, Jay, Charlotte, Adara, Gabby, Elyse, Sam, Matt and Camille for coming out to assist with banding, as well as anyone and everyone else who has contributed to making this station a success this spring. We would also like to extend our thanks to the BBO board members, who have been working tirelessly behind the scenes to keep the organization running as seamlessly as possible. We'd like to extend special thanks to Allan and Sian, both long-term volunteers from England and Red Deer respectively who were invaluable during their stays.

**Table 2:** Captures by species in the Standard nets for the spring 2024 season

SPECIES	BANDED	REPEAT	RETURN	OTHER	TOTAL
<b>Least Flycatcher</b>	52	30	15	3	<b>100</b>
Swainson's Thrush	86	1		1	<b>88</b>
Baltimore Oriole	32	24	9	1	<b>66</b>
Yellow Warbler	18	13	10		<b>41</b>
House Wren	14	9	1	5	<b>29</b>
Myrtle Warbler	23				<b>23</b>
White-throated Sparrow	16	3	2	2	<b>23</b>
Clay-colored Sparrow	18	2			<b>20</b>
Brown-headed Cowbird	8	4	2		<b>14</b>
Chipping Sparrow	12			1	<b>13</b>
Tennessee Warbler	11			1	<b>12</b>
Rose-breasted Grosbeak	3	5	3		<b>11</b>
Blackpoll Warbler	10				<b>10</b>
American Robin	5		4		<b>9</b>
Lincoln's Sparrow	8			1	<b>9</b>
Gray-cheeked Thrush	8				<b>8</b>
American Redstart	6				<b>6</b>
Yellow-bellied Sapsucker	2	3	1		<b>6</b>
Black-and-white Warbler	5				<b>5</b>
Black-capped Chickadee		3	2		<b>5</b>
Downy Woodpecker	1	3			<b>4</b>
Orange-crowned Warbler	3				<b>3</b>
Ovenbird	3				<b>3</b>
Gambel's White-crowned Sparrow	2				<b>2</b>
Northern Waterthrush	2				<b>2</b>
Red-eyed Vireo	2				<b>2</b>
Song Sparrow	2				<b>2</b>
Traill's Flycatcher	2				<b>2</b>
Tree Swallow	1		1		<b>2</b>
Warbling Vireo	1	1			<b>2</b>
Alder Flycatcher	1				<b>1</b>
Black-throated Green Warbler	1				<b>1</b>
Common Grackle	1				<b>1</b>
Eastern Kingbird	1				<b>1</b>
Magnolia Warbler	1				<b>1</b>
Ruby-crowned Kinglet	1				<b>1</b>
Sharp-shinned Hawk	1				<b>1</b>
Slate-colored Junco	1				<b>1</b>
Western Palm Warbler	1				<b>1</b>
<b>TOTALS:</b>	365	101	50	15	<b>531</b>

1932 net-hours

27.5 captures per 100 net-hours

1 - banded 90 or fewer days ago, at the BBO  
2 - banded over 90 days ago, at the BBO  
3 - banded at a location other than the BBO  
4 - caught but not banded (e.g. escaped)

**Table 3:** Captures by species in the Experimental nets for the spring 2024 season

SPECIES	BANDED	REPEAT	RETURN	OTHER	TOTAL
<b>Clay-colored Sparrow</b>	105	29	6	7	<b>147</b>
Yellow Warbler	43	15	11	1	<b>70</b>
Least Flycatcher	30	3	1		<b>34</b>
Baltimore Oriole	13	6			<b>19</b>
Swainson's Thrush	12				<b>12</b>
Traill's Flycatcher	7		1		<b>8</b>
Black-capped Chickadee		3	4		<b>7</b>
House Wren	4	2	1		<b>7</b>
American Goldfinch	1	2	3		<b>6</b>
Chipping Sparrow	6				<b>6</b>
American Redstart	5				<b>5</b>
Common Yellowthroat	3		1		<b>4</b>
Orange-crowned Warbler	4				<b>4</b>
Tennessee Warbler	4				<b>4</b>
Tree Swallow	3		1		<b>4</b>
Warbling Vireo	4				<b>4</b>
Gray Catbird	3				<b>3</b>
Lincoln's Sparrow	3				<b>3</b>
Rose-breasted Grosbeak	3				<b>3</b>
White-throated Sparrow	2		1		<b>3</b>
Blackpoll Warbler	2				<b>2</b>
Northern Waterthrush	2				<b>2</b>
Red-winged Blackbird	1			1	<b>2</b>
Savannah Sparrow	2				<b>2</b>
Brown-headed Cowbird				1	<b>1</b>
LeConte's Sparrow	1				<b>1</b>
Magnolia Warbler	1				<b>1</b>
Myrtle Warbler	1				<b>1</b>
Ruby-crowned Kinglet				1	<b>1</b>
Ruby-throated Hummingbird				1	<b>1</b>
Song Sparrow	1				<b>1</b>
Yellow-bellied Sapsucker		1			<b>1</b>
<b>TOTALS:</b>	<b>266</b>	<b>61</b>	<b>30</b>	<b>12</b>	<b>369</b>

287.5 net-hours

128.3 captures per 100 net-hours

- 1 - banded 90 or fewer days ago, at the BBO
- 2 - banded over 90 days ago, at the BBO
- 3 - banded at a location other than the BBO
- 4 - caught but not banded (e.g. escaped)





The Beaverhill Bird Observatory is a proud member of the Beaver County and Tofield communities. We thank our many supporters and funders that are shown below along with personal donations including in memory of Mary Hughes Weir and the Wainwright Wildlife Society. Visit [www.beaverhillbirds.com](http://www.beaverhillbirds.com) for more information.



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