



Beaverhill Bird Observatory

Spring Report 2023

By

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June 20, 2023

Executive Summary

The Beaverhill Bird Observatory's spring migration monitoring was conducted by Head Biologist Jana Teefy along with Assistant Biologists Jon Van Arragon, Sierra Jamieson, Ethan Denton, and Cala Jorgensen.

They were assisted by a handful of outstanding volunteers throughout the season. Spring migration monitoring programs occurred each morning between May 1 and June 9, with a daily census of birds in the natural area and banding occurring on days without inclement weather. Thirteen mist nets were operated as part of standard migration monitoring protocols, and 7 additional experimental nets were operated simultaneously, totaling 20 mist nets. The



Male and female
Common Yellow-
throats

standard nets recorded 408 captures for a capture rate of 20.07 birds per 100 net-hours, while the experimental nets recorded 664 captures for a capture rate of 83.63 birds per 100 net-hours.



From May 18 until June 9 staff hosted visitors on site for migration banding events. This year BBO hosted the well anticipated continuation of the Big Birding Breakfast on May 27 and 28. Eight student interns began working on numerous long-term monitoring programs in the natural area that will continue into the summer months alongside the standard banding efforts. They focus on Tree Swallows, House Wrens, breeding bird census, butterflies and bats.

Staff had fun experimenting with a static grey board for standardizing photos of molt limits and clines within feather tracts of known aged birds!



Summer Staff
banding away!

A large population of Snow Geese were seen this year across the Beaverhill region, enabling us to chair the organizing committee hosting the first Snow Goose Festival in nearly 20 years! BBO was overjoyed to be represented at this festival welcoming the tremendous flocks of snow geese as well as spring to the region. We hosted hikes in the natural area, held a display in the Tofield Arena, coordinated volunteers as both guides for the bus tours and MC's for the festival banquet.

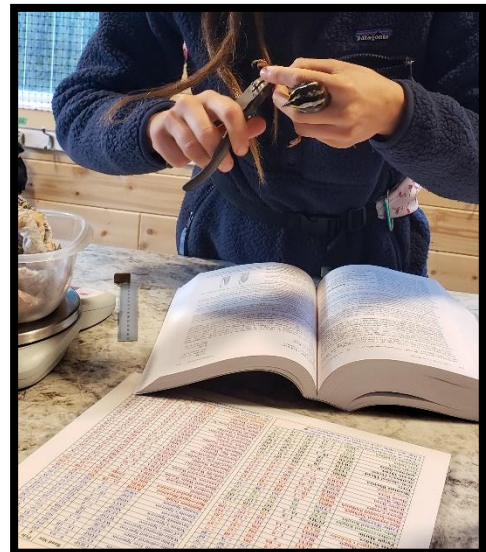
Huge appreciation to Colin Maclellan Carpentry, Camrose for replacing our 'Nuthatch Nest' bunkhouse with a lovely and quaint three-room bunkhouse over the winter. As well, an extended thank you to the Stauffer family for clearing the snowed in tracks with their tractor several times to allow access for Colin's crew onto our site.

Thank you's continue to all the volunteers who came out to help us on the work bee as well as help throughout the season! We had frequent as well as new volunteers, along with both previous staff and Young Ornithologists all come support and help at the work bee! Huge thanks to Christian Lunn, Gabby Dupuis, David Grinevitch, Irene Crosland, Aiden Flewelling, Ken Froese and Jay Froese for joining staff and board members Geoff Holroyd and Helen Trefry in checking off a heap of tasks, as well as a special thanks to Sean Evans for supplying and delivering a load of gravel for our track!

A note on weather, as our data tracks trends in bird populations through seasonal migrations. Recording and making sense of such data sets over time often hinges greatly on weather events and changes! This spring saw some concerning wildfire reports, both in intensity and quantity. While fortunately largely unaffected at the BBO this spring, the smoke made an appearance, and such weather systems may affect waves and flushes of some migrating birds. All of this highlights not only the importance of this data collection from stations such as the BBO, but also the protection of habitats along migratory corridors, especially with bodies of water with significant green vegetation surrounding it, for both food and refuge. The value of these spaces, and understanding their role in global systems is indisputably rising along with the less-predictable and increasing variability in weather patterns associated with climate change.

Migration Monitoring

The standard 13 mist nets (2, 2X, 8, 9, 9X, 50, 51, 52, 53, 54, 55, 56, 57) were operated from May 1 to June 9 on mornings where temperatures were above 0°C, wind was below 20 km/h, and there was no precipitation. A total of 412 birds were caught in the standard net lanes, of which 246 were newly banded and 150 were repeats and returns (Table 1). A total of 37 species were captured, a modest improvement yet again to the previous years' totals! While the capture rate continues to hold promising recovery from lows prior to the global pandemic, the overall capture rate remained low compared to previous years.



Staff banding a White-throated Sparrow



The new luxuriously up-graded Nuthatch Nest!



Grey Catbird with matching bling!

Table 1. Number of captures, net hours, species banded, and capture rates during spring migration at the Beaverhill Bird Observatory since 2007.

	2007	2008	2009	2010	2011	2012	2013	2014
Total Captures	408	382	500	497	412	459	324	841
Birds Banded	318	288	351	333	241	307	211	561
Net Hours (NH)	1813	1828	1608	2016	1884	1997	1884	2615
Capture Rate (birds/100 NH)	22.5	20.9	31.1	24.7	21.9	23.0	17.2	32.2
Species Captured	44	38	39	38	40	39	39	36

	2015	2016	2017	2018	2019	2021*	2022	2023
Total Captures	810	849	996	607	647	262	412	408
Birds Banded	641	663	802	443	491	194	320	246
Net Hours (NH)	2859	3432	2031	2594	2503	1929	2257.5	2032.5
Capture Rate (birds/100 NH)	28.3	24.7	49.0	23.4	25.8	13.6	18.3	20.07
Species Captured	43	45	54	51	44	27	35	37

Due to the COVID-19 pandemic, banding did not occur during the 2020 season

The five most commonly caught species in our standard nets were Least Flycatcher (114 captures, representing 27.9% of all captures), Baltimore Oriole (61 captures, representing 15.0% of all captures), Swainson's Thrush (34 captures, representing 8.3% of all captures), Yellow Warbler (29 captures, representing 7.1% of all captures) and the House Wren (27 captures, representing 6.6% of all captures; Table 2).

White-crowned Sparrow, looking plump and dapper.

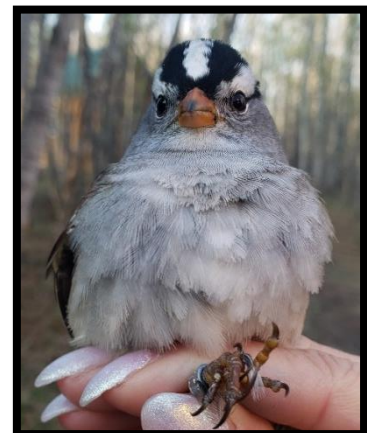


Table 2. Total number and type of capture per species during standard spring migration monitoring at the Beaverhill Bird Observatory.

Species	Banded	Repeat ¹	Return ²	Foreign ³	Other ⁴	TOTAL
Swainson's Thrush	33				1	34
Veery	1					1
Least Flycatcher	68	40	4		2	114
Alder Flycatcher	1					1
Traill's Flycatcher	4		1			5
Yellow-bellied Flycatcher	1					1
American Robin	10	5	6			21
Baltimore Oriole	13	35	10		3	61
Black-capped Chickadee	1	3	1			5
House Wren	19	7			1	27
White-throated Sparrow	18	3	1			22
Yellow-bellied Sapsucker	1	7	1			9
Downy Woodpecker		2	1			3
Hairy Woodpecker					1	1
Common Yellowthroat	1					1
Yellow Warbler	9	12	6		2	29
Myrtle Warbler	5					5
Canada Warbler	1					1
Mourning Warbler	2					2
American Redstart	2					2
Ovenbird	2					2
Chipping Sparrow	13	1				14
Clay-coloured Sparrow	7	2				9
Lincoln's Sparrow	1					1
Brown-Headed Cowbird	4				1	5
Red-Winged Blackbird	9				1	10
Gray Catbird	2					2
Song Sparrow	1					1
Slate-coloured Junco	1					1
Savannah Sparrow	1					1
Black-and-white Warbler	1					1
White-crowned Sparrow	2					2
Orange-crowned Warbler	1					1
Tree Swallow	2	1				3
Warbling Vireo	5					5
Red-eyed Vireo	4					4
Purple Finch		1				1
TOTAL	246	119	31	0	12	408

2032.5 net hours

20.07 captures / 100 net hours

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).



Male Rose-breasted Grosbeak



Momma Northern Saw Whet Owl in one of our Nest Boxes

Alongside the 13 standard mist nets, staff operated 7 experimental mist nets (58, 59, 60, 61, 62, 63, 64). These nets are located 25-50 m north of standard nets in grassland/ edge willow habitat that has been maturing over the last decade. A total of 665 birds were caught in the new nets, of which 512 were newly banded. 39 species were captured in the new nets as well for a combined 47 species between all 20 nets. As anticipated the capture rate was much higher in these nets at 83.75 birds per 100 net-hours – over 4 times greater than the capture rate in the standard nets.

The five most commonly caught species were Clay-colored Sparrow (233 captures, representing 35.0% of all captures), Yellow Warbler (113 captures, representing 17.0% of all captures), Least Flycatcher (95 captures, representing 14.3% of all captures), Baltimore Oriole (26 captures, representing 3.9% of all captures), and the Chipping Sparrow (23 captures, representing 3.5% of all captures).



Warbling Vireo

Table 3. Total number and type of capture per species during spring migration monitoring in the experimental net lanes at the Beaverhill Bird Observatory.

Species	Banded	Repeat ¹	Return ²	Foreign ³	Other ⁴	TOTAL
Least Flycatcher	77	11	1		6	95
Traill's Flycatcher	17	1	1			19
Alder Flycatcher	1					1
Western Wood-pewee	2					2
Baltimore Oriole	13	10	2		1	26
Black-capped Chickadee	1	9	4			14
House Wren	8	1	1		2	12
White-throated Sparrow	8					8
White-crowned Sparrow	3					3
Yellow-bellied Sapsucker	3	2				5
Downy Woodpecker		1				1
Yellow Warbler	77	22	11		3	113
Myrtle Warbler	11		1			12
Magnolia Warbler	1					1
Mourning Warbler	2					2
American Redstart	5					5
Tennessee Warbler	4					4
Common Yellowthroat	12					12
Chipping Sparrow	22				1	23
Ruby-throated Hummingbird					1	1
Clay-coloured Sparrow	184	37	8		4	233
Savannah Sparrow	2					2
Lincoln's Sparrow	2					2
Tree Swallow	16	3	3			22
Blue-headed Vireo	1					1
Orange-Crown Warbler	5					5
Gray Catbird	5					5
Red-Winged Blackbird	2					2
Brown-headed Cowbird		1				1
Rose-breasted Grosbeak	1					1
Ruby-crowned Kinglet	2					2
Song Sparrow	5		1			6
American Robin	2	1				3
Swainson's Thrush	3					3
Blackpoll Warbler	1					1
Warbling Vireo	4		2			6
American Goldfinch	5					5
Red-eyed Vireo	1					1
Cedar Waxwing	5					5
TOTAL	512	99	35	0	18	665

794 net hours

83.75 captures / 100 net hours

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).

Our busiest week in terms of captures was from May 22nd to May 28th , during which we caught 360 birds between both the standard and experimental nets. Our busiest day was on May 28 where we caught 78 birds in one morning! This included our busiest day for guests with all 50 tickets sold out for Big Biding Breakfast that morning, as well as some drop in visitors... crêpes and birds were flying left, right and centre! Of course, an extended big thank you to Janos Kovaks, who made the few hundred crêpes, as well as to the volunteers that helped deliver the whole ensemble; Helen, Geoff, Christie, Jac, Melissa, Julianne, Kylli and others.

The beginning of spring migration monitoring is often a slow affair what with chilly weather shortening the banding hours. While this season saw a startling 30 degrees Celsius in the first week of May, total captures were not dissimilar to previous spring trends- a hopeful indicator that the drastic temperature shift wasn't felt earlier in the migratory corridor! Each day had single digit captures in the standard nets, however the combined totaled just below 50 by the end of the first week.

This spring was fairly on-par with expected visitors and migrants. Some interesting captures during migration monitoring included numerous Tree Swallows, as well as choice appearances by a Canada Warbler, a Magnolia Warbler, a Veery and a couple Western Wood-pewee. While not an uncommon species in the natural area, the high number of House Wrens this year allowed some fun practice in different aging features with 27 House Wrens banded over the course of the spring!



One of our many bold Baltimore Orioles around BBO this spring!



Stunning Mourning Warbler

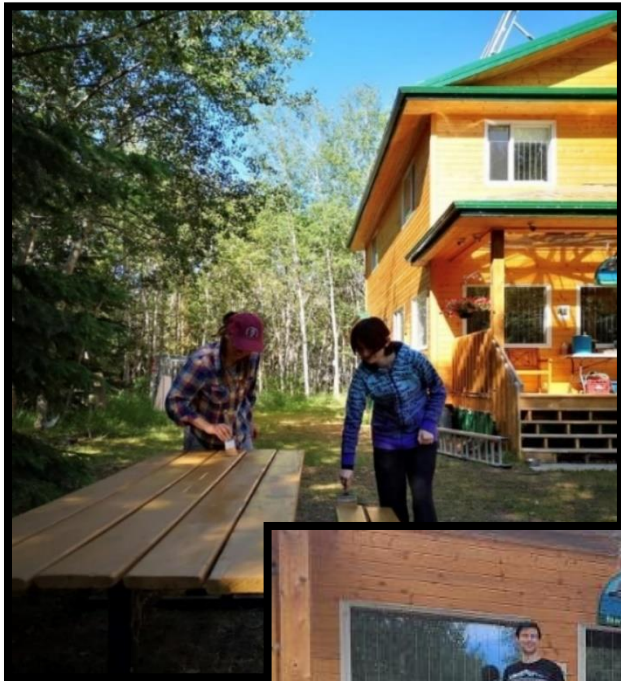
Along with banding, staff conduct a 40-minute daily census to document the species in the natural area, supplementary to what we catch in the nets. With the lake continuing to fill, it was no surprise to once again see massive flocks of Franklin's Gulls clouding over the lakebed to forage on insects. The overhead streams of Greater White-fronted Geese and Snow Geese were as impressive as ever in the early spring, and they eventually gave way to flocks of boreal migrants such as Tennessee Warblers and Common Yellow-throats. Other notable sightings included a few Common Grackles visiting our feeders and at least 23 Purple Martins at our Purple Martin boxes!

A latest addition to the BBO crew has been a young Great Horned Owl, featured to the right, officially named Tansi (*Tawn•si* / Tàn•si / *Tawn•shi* ; regionally variable) by vote of popularity. ‘Tansi’ is a warm greeting in Cree, and some other indigenous languages here on Turtle Island, or North America. She has been adjusting well to the environment and people, as we work to have her ready for the BirdSmart Education program in the winter. We hope she loves going to visit the students as much as we do! For now, she is doing well with overseeing the daily tasks and impressing visitors.

We also eagerly await the same opportunity with a Burrowing Owl, set to join us in the coming weeks!



A big welcome to Tansi, who came to stay with us on June 07



Successful June Work Bee in the summer sun





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 personal donations including in memory of Mary Hughes Weir. Visit www.beaverhillbirds.com for more information.



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