



Beaverhill Bird Observatory
Spring Report 2022

By
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Executive Summary

The Beaverhill Bird Observatory’s spring migration monitoring was conducted by Head Biologist Sara Pearce Meijerink, along with Assistant Biologists Shane Abernethy, Jon Van Arragon, and Jana Teefy. They were assisted by long-term Belgian volunteer Myrthe Van Brempt and ELITE intern Bashir Bello. 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 new nets were operated simultaneously to fulfill criteria for moving net lanes. The standard net lanes recorded 412 captures for a capture rate of 18.3 birds per 100 net hours, while the new net lanes recorded 526 captures for a capture rate of 94.8 birds per 100 net hours. From May 13 until June 5 staff hosted visitors on site for migration banding events, as well this year marked the long-awaited return of the Big Birding Breakfast event on May 28 and 29. We were also able to thank all who donated to our new lab-education building at a ribbon cutting on June 4 and 5. Eight student interns began working on numerous long-term monitoring programs in the natural area that will continue into the summer months.

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 320 were newly banded and 88 were repeats and returns (Table 1). A total of 35 species were captured, a welcome improvement over last year’s dismal total. While the capture rate increased from the extreme low of spring 2021, the overall capture rate still remained low compared to previous years.

Table 1. Number of captures, net hours, species banded, and capture rates during spring migration at the Beaverhill Bird Observatory since 2006.

	2006	2007	2008	2009	2010	2011	2012	2013
Total Captures	242	408	382	500	497	412	459	324
Birds Banded	169	318	288	351	333	241	307	211
Net Hours (NH)	1615	1813	1828	1608	2016	1884	1997	1884
Capture Rate (birds/100 NH)	15.0	22.5	20.9	31.1	24.7	21.9	23.0	17.2
Species Captured	31	44	38	39	38	40	39	39
	2014	2015	2016	2017	2018	2019	2021*	2022
Total Captures	841	810	849	996	607	647	262	412
Birds Banded	561	641	663	802	443	491	194	320
Net Hours (NH)	2615	2859	3432	2031	2594	2503	1929	2257.5
Capture Rate (birds/100 NH)	32.2	28.3	24.7	49.0	23.4	25.8	13.6	18.3
Species Captured	36	43	45	54	51	44	27	35

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



Two handsome warblers that pass through the BBO on their way to the boreal forest: a Myrtle Warbler (left) and a Western Palm Warbler (right)

The five most commonly caught species were Least Flycatcher (65 captures, representing 15.8% of all captures), Slate-colored Junco (54 captures, representing 13.1% of all captures), Baltimore Oriole (52 captures, representing 12.6% of all captures), Swainson’s Thrush (43 captures, representing 10.4% of all captures), and Clay-colored Sparrow (41 captures, representing 10.0% of all captures; Table 2).

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
Alder Flycatcher	2					2
American Goldfinch	1					1
American Robin	12		3		1	16
Baltimore Oriole	24	26	2			52
Black-and-white Warbler	1					1
Black-capped Chickadee	1	1				2
Blackpoll Warbler	3					3
Brown-headed Cowbird	4	4	2		3	13
Chipping Sparrow	5					5
Clay-colored Sparrow	31	10				41

Downy Woodpecker	1					1
Fox Sparrow	1					1
Golden-crowned Kinglet	1					1
Gray Catbird	1					1
Gray-cheeked Thrush	2					2
Hairy Woodpecker	1					1
House Wren	13	3			1	17
Least Flycatcher	48	9	2		6	65
Lincoln's Sparrow	11				1	12
Mourning Warbler	2					2
Myrtle Warbler	20					20
Orange-crowned Warbler	1					1
Ovenbird	1					1
Red-winged Blackbird	1					1
Rose-breasted Grosbeak	1					1
Ruffed Grouse					1	1
Savannah Sparrow	1					1
Slate-colored Junco	50	4				54
Song Sparrow	1	1				2
Swainson's Thrush	42	1				43
Trail's Flycatcher	3					3
Tree Swallow	1					1
White-throated Sparrow	18	1				19
Yellow Warbler	14	8	1		1	24
Yellow-bellied Sapsucker	1					1
Totals	320	68	10	0	14	412

2257.5 net-hours

18.3 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).

Alongside the 13 standard mist nets, staff operated 7 new net lanes (59, 60, 61, 62, 63, 64, 65) that will hopefully replace some of our less productive nets in the future. These nets are located only 25-50 m north in willow habitat that is more suitable for catching large volumes of migrating songbirds. A total of 526 birds were caught in the new nets, of which 411 were newly banded. 35 species were captured in the new net lanes as well for a combined 43 species between all 20 nets. As anticipated the capture rate was much higher in these nets at 94.8 birds per 100 net hours – over 5 times greater than the capture rate in the standard nets.



Clay-colored Sparrows were overall our most abundant capture this spring. While not the most brightly coloured birds, they're still super cute!

The five most commonly caught species were Clay-colored Sparrow (228 captures, representing 43.3% of all captures), Yellow Warbler (67 captures, representing 12.7% of all captures), Baltimore Oriole (48 captures, representing 9.1% of all captures), Least Flycatcher (46 captures, representing 8.7% of all captures), and Common Yellowthroat (17 captures, representing 3.2% of all captures)

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

Species	Banded	Repeat ¹	Return ²	Foreign ³	Other ⁴	Total
Alder Flycatcher	1					1
American Goldfinch	6					6
American Redstart	1					1
American Robin		1	1			2
Baltimore Oriole	20	27			1	48
Black-and-white Warbler	1					1
Black-capped Chickadee		1	1			2
Blackpoll Warbler	2					2
Brown-headed Cowbird	2					2
Cedar Waxwing	4					4
Chipping Sparrow	6					6
Clay-colored Sparrow	188	35	1		4	228
Common Yellowthroat	16		1			17
Eastern Kingbird	1					1
Golden-crowned Kinglet	1					1

Gray Catbird	6					6
House Wren	1					1
Least Flycatcher	34	6	2		4	46
Lincoln's Sparrow	3					3
Myrtle Warbler	15					15
Northern Waterthrush	1					1
Orange-crowned Warbler	4					4
Red-eyed Vireo	1					1
Red-winged Blackbird	2				1	3
Ruby-crowned Kinglet	1					1
Savannah Sparrow	3					3
Song Sparrow	2	3				5
Swainson's Thrush	10					10
Trail's Flycatcher	13	1	1			15
Tree Swallow	1					1
Warbling Vireo	6	2				8
Western Palm Warbler	2					2
White-throated Sparrow	9	1	1			11
Yellow Warbler	47	15	4		1	67
Yellow-bellied Sapsucker	1					1
TOTALS	411	92	12	0	11	526

554.75 net-hours

94.8 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 21st to May 28th, during which we caught 400 birds between both the old and new nets. Our busiest day was on May 22nd where we caught 59 birds in one morning! We were fortunate enough to be hosting visitors that day, which meant our guests were in for quite a treat!

Yellow Warblers like this after second year male were also very common captures during spring migration.





This Ruffed Grouse was probably just as confused as we were when it found itself in one of our nets!

Exciting birds were plentiful this spring. One of the strangest captures occurred on our very first day of banding when we found a Ruffed Grouse in one of the nets! These ground-dwelling forest birds are much too large for our nets, so while our friend did quite a bit of damage to the net we enjoyed his visit nonetheless! Other interesting captures during migration monitoring included two Tree Swallows, an Eastern Kingbird, and a Fox Sparrow. Outside of standard migration monitoring, we also caught an Evening Grosbeak in our feeder net and a Purple Martin during an afternoon banding demonstration for Tofield School! While not an uncommon species in the natural area, the number of Baltimore Orioles this year was truly impressive with 44 birds banded over the course of the spring!

Normally the first day of spring migration monitoring is a slow affair – captures usually number in the single digits and chilly weather often makes for a shortened day of banding. The start of this spring however was a record smashing change of pace – with us catching 56 birds on our very first morning! Of those birds 47 were Slate-colored Juncos, part of a late flock delayed by late thaw and persistent winter conditions. The result was all the stragglers rushing through the natural area at once – and a very memorable morning for our staff!



An after second year male Baltimore Oriole, one of many banded by BBO staff this spring.



Two of the more uncommon captures this spring: an Eastern Kingbird (left) and a Fox Sparrow (right)

In addition to banding, staff conducted a 40-minute daily census each day to document the species in the natural area. With Beaverhill Lake continuing to return, 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 Northern Waterthrushes. Other notable sightings included a Brown Thrasher near one of our net lanes, a Turkey Vulture that decided to land in our lab clearing, and 11 Purple Martins at our Purple Martin boxes!

Big Birding Breakfast

After two years of cancellations due to COVID-19, the Big Birding Breakfast fundraiser finally made its triumphant return this spring! The event was a huge success and the staff would like to extend a huge thank you to the volunteers and board members who assisted during the events. An extra-special thank you goes to Janos Kovaks for spending both mornings cooking some absolutely delicious crepes!

We hosted 50 visitors each morning on May 28th and May 29th, and visitors were treated to a full morning of banding to go with their breakfast. We also ran several other activities throughout the morning: an owl headband craft



This lovely male Mourning Warbler was one of the highlight captures of the Big Birding Breakfast!

for kids, a guided nature hike to the weir, and we even threw feathers out in the grassland for our local Tree Swallows to use for nesting material! We look forward to running this event again next year as it was a ton of fun and a great way to support the BBO.



Some of the fun from the Big Birding Breakfast: a visitor releases a Baltimore Oriole after banding (left), Shane demonstrates the banding process (top right), visitors throw feathers for our Tree Swallows to use as nesting material (bottom right)

Other Activities

Besides our usual migration monitoring programs, staff have also been putting a great deal of emphasis on trying to find out more about our local breeding birds. Myrthe, our long-term volunteer from Belgium, has been working incredibly hard to find as many Least Flycatcher nests as possible so that we can learn more about the breeding biology of one of our most common summer residents. Intern Bashir Bello has been conducting similar surveys for Yellow Warbler nests. We hosted many of the building funders and supporters at ribbon-cutting weekend on June 4 and 5.



A female Least Flycatcher sits on her nest.

Student Interns

The BBO hires several student interns each year to assist with ongoing long-term monitoring projects in the natural area. These projects include monitoring nest boxes for Tree Swallows and House Wrens as well as conducting surveys of grassland birds, butterflies, and bats. For the first time since 2019, we were able to host all of our interns on site for a big intern orientation day! Interns were given an introduction to the Beaverhill Bird Observatory and its programs by Head Biologist Sara Pearce Meijerink and Chair Geoff Holroyd before splitting up for a program-specific introduction from their respective mentors.

Thank you to all our interns and mentors for this year! Tree Swallow interns Tessa Frisky and Jonathan Kells are mentored by Karin Snyder, House Wren interns Amelia Murray and Madison Pusch are mentored by Zach Antoniw, Bat interns Grace Wagram and Hailey Lewicki are mentored by Lizelle Odendall and Erin Low, Grassland Breeding Bird Census intern Raegan Giesbrecht is mentored by Jon Van Arragon, and Butterfly intern Dylan Perrott is mentored by John Acorn.

The BBO is home to many nest boxes designed for Northern Saw-whet Owls, and we were thrilled to find one of them was occupied this year! We carefully monitored the nest box and were able to band six adorable owl chicks on May 26th.

While our Tree Swallows are still mostly incubating eggs in early June, staff also had the chance to band Mountain Bluebird chicks in one of the nest boxes along the road! In addition to the chicks, a great deal of patience gave staff the opportunity to band the male parent as well! The female bird at this particular nest box was already banded, so we were happy to give her partner some matching bling so he didn't feel left out.



This male Mountain Bluebird tested our patience, but the wait was certainly worth it!

Great Canadian Birdathon



The 2022 Beaverhill Bobolinks Birdathon team!

This year's edition of the Great Canadian Birdathon was once again a wonderful experience for our staff! On May 24th staff spent the morning divided between hosting a group of visitors for banding and birding around the natural area. We saw White-faced Ibis, American White Pelicans, and a straggler Snow Goose on Beaverhill Lake and then headed out to explore hotspots in the area. We stopped at the Amisk Creek bridge and saw Barn Swallows, Cliff Swallows, and Wilson's Phalaropes before successfully finding a pair of American Kestrels near a nest box. After a crucial stop in town at Mom's Ice Cream we headed over to Elk Island National Park and were able to find Western, Horned, Eared, and Red-necked Grebes on Astotin Lake as well as a vagrant Barrow's Goldeneye! After returning back to the lab we realized we had only seen 96 species so far...and we almost always hit 100 species! Naturally, we went out to the weir to pick up a few more species and with the help of Shane in the city, we managed to hit 100 species exactly for the whole day! While some of the birds we had hoped to see didn't cooperate it was still a ton of fun. Staff were able to raise \$905 for the BBO and Birds Canada through this fundraiser, and it's not too late to still contribute! You can support the Beaverhill Bobolinks team at [Beaverhill Bobolinks | Great Canadian Birdathon | Birds Canada](#).

In addition to the staff's Birdathon, our Chair Geoff Holroyd and Vice Chair Helen Trefry ran their own Birdathon in early June. They saw a total of 113 species including an extremely rare vagrant from Europe – a Garganey – while raising \$525 thus far to help support the BBO as well! You can donate to their fundraiser at [Beaverhill Birders | Great Canadian Birdathon | Birds Canada](#).

Education and Outreach



The BBO's ambassador birds for the 2022 education season Maple the Peregrine Falcon (left) and Remy the American Kestrel (right)

This year BBO's BirdSmart program was able to offer presentations in the classroom once again! Presentations about birds, climate change, and conservation were available as both in-person and online formats to ensure we could reach the widest audience possible. Sara and Shane teamed up with ambassador birds Remy the American Kestrel and Maple the Peregrine Falcon to deliver 195 presentations between November 24th, 2021 and April 29th, 2022! Overall we reached 5800 students and 1100 adults during presentations to schools, youth groups, and private events. This was a massive improvement over the 2020/2021 education season thanks to demand for in-classroom presentations as well as reduced presentation costs for schools.

Outreach wasn't just limited to the classrooms, as once the field season began we once again held ticketed events so members of the public could join us for songbird banding! Between regular events and our Big Birding Breakfast fundraiser we hosted a total of 283 visitors during these events! In addition to seeing the bird banding process up close, visitors also got the chance to join guided nature walks in the natural area and interact one-on-one with the biologists. If that interests you, keep an eye on [our website](#) – fall songbird and owl events will be here before you know it!

Shane's BirdBytes videos were a huge success last year, allowing us to reach more people than ever before with quick entertaining and educational videos about birds. If you enjoyed those videos, you'll be thrilled to hear that the series is continuing with more this year! We have also started uploading past episodes of BirdBytes to TikTok, with the most popular video hitting over 100,000 views! If you'd like to watch the latest and greatest from BirdBytes, check out our [YouTube channel](#)!

Acknowledgements

A huge thank you to all the board members who keep the BBO running behind the scenes. We especially thank Phil and Helen Trefry for housing our educational birds, Geoff Holroyd for overseeing the BBO's operations and providing day-to-day support in the field, and Rose Scott for managing the finances.

Thank you to all the volunteers and board members who helped the BBO during our large public events. Thank you to Irene Crosland for being a wonderful field mom to staff. Thank you to our songbird banding volunteers; Melissa Chisholm, Hazel Flesher, Luara Hay, Maud Laurent, Molly Sharp, Sierra Jamieson, Christie & Peter Campbell, and Martine Dumont. Thank you to all the interns who help keep our long-term monitoring programs running. The BBO and our local Red-winged Blackbirds would like to thank Steve and Kay from the Wildbird General Store for providing us with monthly support in the form of birdseed, we truly appreciate it!

The BBO's spring operations would not have been possible without support from our generous funders and donors. Our 2022 spring operations were made possible by financial support from the Alberta Gaming, Liquor and Cannabis Commission, Alberta Conservation Association, Wildbird General Store, TD Friends of the Environment, Nature Canada's Labatiuk Nature Endowment Fund, Bird Studies Canada's Baillie Fund, Edmonton Community Foundation, Canada Summer Jobs, Eco Canada, Beaver County, ELITE Program for Black Youth, and Bass Pro Shops and Cabela's Outdoor Fund. We also thank the individuals who have donated to BBO this year.