



Beaverhill Bird Observatory
Spring Report 2021

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 Biologist Shane Abernethy and Summer Students Jon Van Arragon and Jana Teefy. Spring migration monitoring occurred between May 1st and June 9th, with banding and a standardized census occurring through these dates. Staff operated thirteen mist nets and recorded 262 captures of 27 species, resulting in an overall capture rate of 13.6 birds per 100 net hours. Staff, board members, dedicated volunteers, and 8 student interns completed numerous other monitoring programs, on-site projects, and outreach activities.

Migration Monitoring

Thirteen mist nets (2, 2X, 8, 9, 9X, 50, 51, 52, 53, 54, 55, 56, and 57) were operated from May 1st to June 9th on days with temperatures above 0°C, wind below 20 km/h, and no precipitation. A total of 1929 net hours were accumulated, with nets frequently being opened late due to sub-zero morning temperatures and closed early due to high winds. A total of 262 birds were caught, of which 194 were newly banded. A total of 27 species were banded, making this year a sharp decline from previous years in terms of abundance and diversity of birds banded. Both the number of species and capture rate were the lowest since 2005.

Table 1. Number of captures, mist-netting effort, capture rates, and number of species caught during spring migration at the Beaverhill Bird Observatory since 2005.

	2005	2006	2007	2008	2009	2010	2011	2012
Total Captures	272	242	408	382	500	497	412	459
Birds Banded	196	169	318	288	351	333	241	307
Net Hours (NH)	1570	1615	1813	1828	1608	2016	1884	1997
Capture Rate (birds/100 NH)	17.6	15.0	22.5	20.9	31.1	24.7	21.9	23.0
Species Captured	32	31	44	38	39	38	40	39

	2013	2014	2015	2016	2017	2018	2019	2021*
Total Captures	324	841	810	849	996	607	647	262
Birds Banded	211	561	641	663	802	443	491	194
Net Hours (NH)	1884	2615	2859	3432	2031	2594	2503	1929
Capture Rate (birds/100 NH)	17.2	32.2	28.3	24.7	49.0	23.4	25.8	13.6
Species Captured	39	36	43	45	54	51	44	27

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



Some of the birds caught during spring migration monitoring from left to right, top to bottom: a leucistic American Robin, Yellow-headed Blackbird, Baltimore Oriole, and a Mourning Warbler.

The five most commonly caught species were Least Flycatcher (67 captures, representing 25.6% of all captures), Clay-colored Sparrow (23 captures, representing 8.8% of all captures), Swainson's Thrush (22 captures, representing 8.4% of all captures), Yellow Warbler (21 captures, representing 8.0% of all captures), and American Robin (21 captures, representing 8.0% of all captures)

Table 2. Total number and type of capture per species during 2021 spring migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2021 at BBO, Return captures were banded at BBO in a previous year, Foreign captures were banded elsewhere and caught at BBO, and Other captures were caught in a mist net but released unbanded, or caught more than once in a single day.

Species	Banded	Repeat ¹	Return ²	Foreign ³	Other ⁴	Total
American Robin	12	7	1		1	21
Baltimore Oriole	13	5				18
Black-and-White Warbler	2					2
Black-capped Chickadee	7	4	2		2	15
Brown-headed Cowbird		1				1
Chipping Sparrow	5					5
Clay-colored Sparrow	17	1			5	23
Gray Catbird	1					1
Gray-cheeked Thrush	2					2
House Wren	4	2				6
Least Flycatcher	42	16	3		6	67
Lincoln's Sparrow	7					7
Mourning Warbler	5					5
Myrtle Warbler	1					1
Northern Saw-whet Owl	1	1				2
Northern Waterthrush	3					3
Red-winged Blackbird	2	1				3
Ruby-throated Hummingbird					1	1
Slate-colored Junco	3					3
Song Sparrow	2					2
Swainson's Thrush	22					22
Trail's Flycatcher	4					4
Warbling Vireo	3					3
White-crowned Sparrow	1					1
White-throated Sparrow	16	1			2	18
Yellow Warbler	14	3	2		1	21
Yellow-headed Blackbird	5					5
Totals	194	42	8	0	18	262

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).

May 29th to June 4th was our busiest week of spring migration with 92 captures, the highlights of which were Mourning Warblers, Baltimore Orioles, and a Gray Catbird. Other notable captures included several Yellow-headed Blackbirds, a Northern Saw-whet Owl, and a Yellow Warbler previously banded at the BBO that was at least 8 years old! Overall this spring was one of slow banding, having the lowest capture rate and second lowest number of captures in the last 15 years of spring migration monitoring at the Beaverhill Bird Observatory. Possible explanations for the dismal numbers this spring include frequent cold windy mornings forcing nets to stay closed during peak bird activity or habitat succession along the static net lanes.



A Yellow Warbler that was originally banded at the BBO in 2013 was recaptured this spring, making this fellow at least 8 years old!

Staff surveyed birds along a standardized census route each day between May 1st and June 9th. On days where weather prohibited us from conducting normal migration banding, a second census was conducted along the same route to supplement the day's observations. 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. While banding this year was slow, the return of Beaverhill Lake made for an exciting season of observations. White-fronted Geese, Snow Geese, and Sandhill Cranes were seen flying overhead in large flocks. At the peak of their migration we were counting hundreds of geese each day from the clearing alone! The lake has also boasted massive flocks of Franklin's Gulls, forming undulating clouds with thousands of birds in them that remain just barely visible over the lake. We suspect that a new Franklin's Gull colony may be forming on the lake, but only time will tell. The BBO's own mascot made frequent appearances as well, with the graceful call of the Willet being a common note in the morning soundscape. This year was also phenomenal for Baltimore Orioles, with at least 8 singing males being recorded on a single census in May! In early June we encountered another surprise, a flock of over 100 Yellow-headed Blackbirds roaming throughout the forest! We suspect they were feeding on leafroller caterpillars, which have been very abundant so far this year.

On-site Improvements



Above: The humble shack that was the old BBO lab building until fall 2020.



Right: The brand new BBO Research and Education Centre! Construction completed in the spring of 2021!

The new BBO Research and Education Centre is now complete! Staff have spent the spring settling into the new building, unpacking equipment and furniture to get the building ready for banding and visitors. While we were unable to host visitors inside the building this spring due to COVID restrictions, we are extremely excited to do so in the (hopefully near) future! We would like to extend a huge thank you to the folks at MacLellan Carpentry for the beautiful job they did on the new building, as well as John and Rose Scott for overseeing the project. The staff were extremely grateful to have a building with a wood stove and proper insulation during the cold spring mornings!

With the building all finished, we are still awaiting solar installation on the new building. Once the solar is fully operational, our Motus tower will be the 3rd to come online in Alberta! Motus is a new wildlife tracking system capable of detecting birds that fly within a 15 km radius of the tower provided they are fitted with a specialized nano tag. This will allow us to learn a lot more about the movements of our avian friends and we are excited to see what we can do with this technology in the future!

Other Activities

As usual, staff have been hard at work tackling a variety of other tasks around the natural area. Staff were able to install the last of the new Alberta Parks signs, which will help visitors to navigate around the natural area more easily while visiting. Staff also repaired and replaced



Shane poses with one of the newly installed Alberta Parks signs.

some of our old owl nest boxes, and were delighted to find that one of them was occupied! We wish our little Northern Saw-whet Owls a successful breeding season.

Teefy; Bat interns Kayley Burke and Celina Gerlich are mentored by Erin Low; Breeding Bird Grid intern Ryan Corp is mentored by Jon Van Arragon; and Butterfly intern Michelle Hoang is mentored by Dave Lawrie. We're thrilled to have all of them join us this year!

Great Canadian Birdathon

BBO staff and volunteers had a wonderful Birdathon this year! After a full morning of banding with visitors, we headed off to bird around the Tofield area and find as many species as possible. We visited Amisk Creek, Yoder Slough, Tofield Llama pond, and Miquelon Lake before ending the day at Geoff's house. We saw a total of 103 species including a Bobolink, several Willets, Wilson's Phalaropes, and a Pileated Woodpecker. We were able to raise \$1665 for bird conservation and would like to extend a huge thank you to everyone who participated and contributed to our team! Our Chair and Vice-Chair, Geoff and Helen, conducted their own

Student Interns

After we were unable to do so last year, the BBO is thrilled to once again be hosting student internships! We have 8 student interns this year, each is paired with a volunteer or staff member who will act as their mentor and help ensure their monitoring project is successful. The internship program is organized by BBO board member Laurie Hunt. Normally an on-site orientation with all the interns occurs in early May, however due to gathering size restrictions orientation instead occurred as interns meeting with their mentors individually at different times and dates.

This year's Tree Swallow interns are Sunny Guo and Dominic Wong mentored by Shane Abernethy; House Wren interns Claudia Cruz and Sam Bennet are mentored by Jana

Beaverhill Birders Birdathon, seeing an incredible total of 123 species and raising around \$2500! You can support our Birdathon at [Great Canadian Birdathon | Birds Canada | Oiseaux Canada](#) and search for Beaverhill Birders team.



The BBO Staff relaxes on Geoff's dock after a long day of birding with the Beaverhill Bird Nerds Birdathon Team!

Education and Outreach

While the COVID-19 pandemic disrupted the usual operation of BBO's Birdsmart program, staff were able to make the best of the situation by transitioning presentations to a fully digital format. The BBO's BirdSmart Education Program, led by Sara Pearce Meijerink and Shane Abernethy, completed 63 presentations and reached 1,529 people between November 16th, 2020 and May 29th, 2021. Presentation topics were focused on climate change, bird conservation, and how we can all take action in our own lives to reduce our carbon emissions. Sara and Shane were joined by Rickie the Saw-whet Owl and Maple the Peregrine Falcon, who remained an integral part of the online presentations.



Rickie the Saw-whet Owl prepares for an Owls of Alberta presentation.

A key component of our outreach this spring was hosting members of the public for songbird banding. After ticketed events for owl banding proved wildly successful, we decided to continue this model into the spring both in order to compensate for the cancellation of our Big Birding Breakfast fundraiser and in order to stay compliant with COVID gathering restrictions. While we originally intended to only host visitors for 3 days every week, which was quickly increased to 4 days per week due to high demand. A total of 400 visitors came out to the BBO this spring, including both people who registered for a songbird banding event and those who were just passing through the natural area on a hike. Thank you to everyone who came out!



Jana and Shane demonstrate the banding process to members of the public. Photo credit: Patti Clark

Visitors to our songbird banding were treated to an up-close look at the banding process along with explanations of how banding helps contribute to our knowledge of bird populations and movement. We also engaged visitors in conversations about BBO's other monitoring programs as well as conservation, climate change and nature in general. For slow days or days where the weather was uncooperative, we had several backup plans. We often opened a feeder net,



On slow days, Rickie was always ready to ensure visitors had a memorable experience. Photo credit: Patti Clark

which proved productive in catching the many Red-winged Blackbirds frequenting the large feeder. We also gave visitors guided tours of the weir, took them to see the Purple Martins at the boxes, and took them with us on census. If all else failed, we had the ever-adorable Rickie on our side to ensure that visitors would leave having seen at least one bird!

As part of BBO's education and outreach, Shane has been developing the BBO's Youtube channel with his Birdbytes series. These short little videos contain footage of both our educational birds as well as wild ones caught during banding. The footage is accompanied by narration giving interesting facts and tidbits concerning the species in question. These videos have significantly increased BBO's Youtube presence, with the channel growing to over 100 subscribers and the most viewed video getting over 10,000 views! These

videos have allowed us to reach a wider audience about birds and conservation. Click on [BirdBytes - Mobbbed by Chickadees! - YouTube](#) to get started.

Acknowledgements

A huge thank you to all the board members who keep the BBO running behind the scenes. We especially thank Phil and Helen Trefy for housing our educational birds and producing the Willet, John and Rose Scott for overseeing the building project, and Geoff Holroyd for overseeing the BBO's operations and allowing us to use his dock during Birdathon. We would like to extend another huge thank you to MacLellan Carpentry for their hard work on our beautiful new Research and Education building.

Thank you to all the board members, volunteers and interns who have helped the BBO with various activities. Thank you to Irene Crosland for being a wonderful field mom to staff and to all the interns who are helping to keep BBO's long-term monitoring projects running. Thank you to Erin Low and Dave Lawrie for mentoring the bat and butterfly interns. 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 2021 spring operations were made possible by financial support from the Alberta Gaming, Liquor and Cannabis Commission, Alberta Conservation Association, Edmonton Community Foundation, The Wildbird General Store, TD Friends of the Environment, Nature Canada's Labatiuk Nature Endowment Fund, Alberta Environment and Parks, Claystone Waste Ltd., Hauser Home Hardware in Camrose, Fortis Alberta, Eco Canada, Environment and Climate Change Canada, Employment and Social Development Canada, Beaver County, Clean Harbours, Epp Memorial, Bird Studies Canada's Baillie Fund, and Moonshine Café Tofield. While we acknowledge personal donations in our annual report, we wish to thank the anonymous donation in Memory of Mary Weir, and the donation by Carole and Gary Dodd in support of our internship program.