



**Beaverhill Bird Observatory**  
**Summer Report 2019**

**By: Stephanie Thunberg**

**August 31, 2019**

## Introduction

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The 2019 summer season covered June 20<sup>th</sup> to August 10<sup>th</sup>. Throughout the summer programs were operated by Head Biologist Sara Pearce Meijerink, Assistant Biologist Emily Grose, and Summer Assistants Jeremy Lambe, Karambir Singh, and Stephanie Thunberg. The MAPS program (Monitoring Avian Productivity and Survivorship) was operated for six rounds, with a total of 638 birds captured. This is the most captures the BBO has ever had during its 31 years conducting MAPS! For the fourth consecutive year, the BBO has hosted the Geoff Holroyd Young Ornithologist Workshop. This year BBO staff mentored 9 youths from across Canada. Workshop attendees spent a week on site learning about bird banding, bird conservation and biological sciences. Staff also conducted nest searches, statistical analysis through R-studio, presented education programs to the public, retirement homes and outreach events, and interacted with visitors. During the summer 12 interns continued to operate programs including; breeding bird surveys, Tree Swallow nest boxes, House Wren nest boxes, bat surveys, and butterfly surveys.



*A Myrtle Warbler.*

## Monitoring Avian Productivity and Survivorship

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The MAPS program was created in 1989 by the Institute for Bird Populations to monitor and assess North American land bird productivity during the breeding season by specifically looking at adult survivorship, post fledgling productivity and population dynamics. This is a North American wide collaboration between banding stations, public agencies, other non-government groups and individuals across Canada and the United States to continually monitor bird populations. The data collected from MAPS can provide vital information that aids in conservation and management of our breeding birds.

Starting its MAPS program in 1989, the BBO is one of the oldest MAPS operators. While the BLAB station remains operational, the new SOPO and LILA stations that were established in 2016 continue to thrive and grow! Each station runs ten standard songbird mist nets (12m long by 2.6m tall, 30mm mesh) starting at sunrise and monitored for 6 hours, once during each ten-day cycle between June 20<sup>th</sup> and August 10<sup>th</sup>. Banding only occurred during weather conditions with no precipitation, temperatures between 0°C and 27°C, and wind speed of 20km/h or less.

## **BLAB**

The BLAB station is located near the banding lab (N53.38055° W112.52737°) with the majority of the nets situated to the southeast of the lab. Historically when this station was first established, the habitat was described as being young willow, aspen and poplar near water. However, during the 29 years since then, forest succession has occurred and along with the fluctuating water levels of the Beaverhill Lake, the habitat can now be described as mixed aged aspen and poplar forest. Banding at the BLAB station occurred on June 10<sup>th</sup>, June 21<sup>st</sup>, July 2<sup>nd</sup>, July 11<sup>th</sup>, July 20<sup>th</sup>, and August 5<sup>th</sup>.

BLAB experienced a relatively busy year, boasting a total of 100 birds composed of 14 different species. There was an effort of 350 net hours, for a capture rate of 28.57 birds per 100 net hours. Like previous years, Least flycatchers were our most frequent species captured (62), accounting for 62% of all birds caught, followed American Robins (19), Hermit Thrushes (6) and Red-winged Blackbirds (3). Other noteworthy captures include Rose-breasted Grosbeaks (2), Ruby-throated Hummingbird (1) and a Yellow-bellied Sapsucker (1).



*An American Robin.*

## SOPO

The SOPO station (N53.37936° W112.51921°) is located at the intersection of Harrier Highway and Flicker Freeway in the Beaverhill Natural Area. It borders Sora Pond and Lister Lake and the habitat there comprises mixed aged aspen and poplar forest which transitions into willow that borders the two water bodies. Banding occurred at the SOPO station on June 12th, June 26th, July 4<sup>th</sup>, July 12<sup>th</sup>, July 26<sup>th</sup> and August 7<sup>th</sup>.

This year SOPO had both fantastic species diversity and numbers, totaling 33 different bird species and 336 captures. There was an effort of 350 net hours, for a capture rate of 96 birds per 100 net hours. Least flycatchers were caught the most (95), followed by Yellow Warbler (41), Red-winged Blackbird (40), and Black-capped Chickadees (35). Other noteworthy captures include a Black-throated Blue Warbler (1), a Ruby-crowned Kinglet (1), a Sora (1), a Common Grackle (1) and an Eastern Kingbird (1).



*An Eastern Kingbird.*

## LILA

The LILA station (N53.37216° W112.52930°) is located on Harrier Highway beside the shoreline of Lister Lake, just east of the viewpoint. The habitat is mixed age aspen and poplar, transitioning into willows that border Lister Lake. Banding at the LILA station occurred on June 13<sup>th</sup>, June 27<sup>th</sup>, July 9<sup>th</sup>, July 17<sup>th</sup>, July 27<sup>th</sup>, and August 8<sup>th</sup>.

This year LILA suffered from continuously unfavorable weather, reducing the total net hours significantly relative to the BLAB and SOPO stations. However, despite the weather LILA nets managed to catch 202 birds. There was a net effort of 303.5 hours, for a capture rate of 66.26 birds per 100 net hours. Least flycatchers were caught the most (78), followed by Black-capped Chickadees (30), Yellow Warblers (14), and Song Sparrows (13). Other noteworthy species include Cedar Waxwings (9), Yellow-bellied Sapsuckers (10), Gray Catbirds (2), Baltimore Orioles (2) and a Common Yellow-throat (1).



*Karambir Singh and a Black-capped Chickadee.*

## **Geoff Holroyd Young Ornithologist Workshop**

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This is the fourth consecutive year the BBO has hosted the Geoff Holroyd Young Ornithologist Workshop for youth, ages ranging from 15- 18 years of age. Workshop attendees came from all over Alberta and Canada, including Kelowna B.C., Brantford Ontario, and Montreal Quebec. All participants had the opportunity to experience our Migration Monitoring and MAPS banding program. By the end of the week, almost every youth was banding and able

to extract birds from the net with supervision. Afternoons providing networking opportunities for the young birders, where guest speakers came out to share their knowledge and experience. Guest speakers included Geoff Holroyd (Hummingbird Banding and Tree Swallow talk), David Lawrie (Moths and Butterflies), Helen Trefry (Peregrine Falcon Conservation and tour), Gord Court (Owl Conservation), and Kim Bloome (Wildlife Rehabilitation). Staff led the Young Ornithologists on a Big Birding Day around the BBO, Tofield wetlands and Elk Island National Park. Our keen young birders stayed up until 4:30am tallying up 116 different species, including a Short-eared Owl in the natural area! During the workshop we were fortunate to borrow some bird specimen from the Canadian Wildlife Service collection, allowing the youth to practice their aging/sexing skills. Kim Bloome from WildNorth treated us to a duckling release that went swimmingly, and David Lawrie help us collect and identify butterflies throughout the natural area.

### **A special thanks to our Young Ornithologist;**

- Hailey Strydhorst
- Kayla Bezkorow
- Samuel Bennett
- Lucas Wessner
- Kalin Ocana
- Ethan Denton
- Robby Morrow
- Tessa Frisky
- Shayle Didur-Simon



*The 2019 Young Ornithologists! (photo by Geoff Holroyd)*

## Nest Searches

Nest searches commence in spring, and intensify throughout the summer. Nests are found by either active searching, or by incidental discovery throughout the natural area. Once a nest is found, a nest card is filled out, documenting species, number of young/eggs, status of young, GPS location, presence of parents, and habitat class. Data is implemented into a database for future research.

### *Appendix 1. Nest Search Data*

Species	Number of Nests Found
American Robin	2
Blue-winged Teal	2
Clay-Colored Sparrow	1
Common Golden-eye	1
House Wren	2
Least Flycatcher	4
Ruby-throated Hummingbird	1
Yellow Warbler	1
<b>Total</b>	<b>14</b>



*An American Robin Nest.*

## Other Banding

Throughout summer, staff banded Tree Swallow nestlings from 205 nest boxes, hailing from the New, Spiral, and Road grids. Tree Swallow nestling banded occurred June 20<sup>th</sup> 2019 to July 4<sup>th</sup>, 2019. A total 566 Tree Swallow nestlings were banded, including 5 Mountain Blue Bird nestlings. A total of 23 adult Tree Swallows were also banded.

Geoff Holroyd brought his hummingbird trap to the Young Ornithologist Workshop, and later during Migration Monitoring with staff. He banded 12 individuals, 6 banded at the Beaverhill Bird Observatory, and 6 at the Trefry's residence, including 5 new bands, and one return from 2017.



*A Ruby-throated Hummingbird.*

## Other Events

This year was the latest the education program (BirdSmart) continued operating in schools, only wrapping up on June 20<sup>th</sup>, a week before schools closed for the summer. However, the education program remained active throughout the summer season. Staff attended outreach events and Emily Grose provided a well-received Owls of Alberta presentation to the Summerwood Village Retirement Home with Ray the Great Gray Owl. Kam and Sara welcomed 100 new Canadians to the outdoors at Blackfoot Provincial Recreational Area, Islet Lake Staging Area with a booth and Ricki. Sara and Shae (volunteer) educated 500 children and parents at the ChristCity Church Family Carnival with a booth and Ray the Great Gray Owl. This was Ray's very first big event, and he performed wonderfully. Staff are very optimistic for his future as an education bird! Kam and Stephanie educated 200 children and parents at the Pigeon Lake Love

the Lake event with a booth and Ricki, and Emily and Kam attended the Big Knife Provincial Park Battle River Watershed Alliance event with Ricki and a booth.



*Ricky at Pigeon Lake.*

## **Summer Internships**

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The BBO had 12 dedicated interns monitoring the productivity of Tree Swallows, House Wrens, and other breeding birds, as well as surveying bats and butterflies throughout the Beaverhill Natural Area. The BBO thanks all interns for their passion and hard work.

### **Tree Swallow Surveys**

- Man Yong
- Alexis Anderson
- Khoi Nguyen
- Sara Conner

### **House Wren Surveys**

- Kelly Musgrove
- Emily Jamieson

### **Butterfly Surveys**

- Britni Gray

### **Breeding Bird Surveys**

- Kaite Li
- Robert Lu
- Sofia Guest

### **Bat Surveys**

- Emily Halajian
- Jessa Mae Gualter

## Acknowledgements

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This summer would not have been successful without the help from our phenomenal board members! Geoff Holroyd, chair of the board of directions, mowed trails before the Young Ornithologists Workshop, while Helen Trefry, vice-chair, organized the Young Ornithologist Workshop. Helen did a fantastic job coordinated all of the meals for the event and aiding in other logistics. A special thanks is also due to Steve Anderson for delivering mail, helping with meals at the workshop, mentoring interns and for his help planning our new lab structure. We also thank Rose Scott for her pivotal role as treasurer of the BBO. Thank you all for everything!

BBO also relied on the efforts of many individuals and volunteers to operate summer programs, and to various complete summer chores and projects. Thank you to the following active volunteers;

- Josue Artega Torres
- Beth Blanchette
- Marie-Eve B
- Amie Campbell
- Melissa Chisholm
- Irene Crosland
- Martine Dumont
- Tessa Frisky
- Jeremie Mahaux
- Kerry Norman
- Sonia Vallocchia
- Kelly Skaug
- Derin Siemens
- Jana Teefy
- Ryan Thunberg
- Jon Van Arragon
- Megan Westervelt

A huge shout-out to Steve and Kay at the Wildbird General store for providing BBO with in-kind support in the form of bird seed. Thank you for contributing bird books for our Young Ornithologists Workshop, and other reference materials for our use.

We appreciate the unofficial office space provided by the Tofield Library as well as the Trefry farm. Thank you Connie, Diane, Susan, Ashley, Helen and Phil for letting us use your space to write reports, do data entry, and connect with the outside world.

A BIG thank you to our financial supporters who help keep our organization up and running! Thanks to the; Alberta Conservation Association, Alberta Liquor and Gaming Commission, TD Friends of the Environment, Community Environment Action Grant, Nature Canada (Charles Labatiuk Fund), Bird Studies Canada (Baillie Fund), and personal donations. Thank you all for your support!

*Appendix 2. MAPS Raw Data*

<b>BLAB Station</b>	<b>Captures</b>				
<b>Species</b>	<b>Banded</b>	<b>Repeats</b>	<b>Return/Recov</b>	<b>Other</b>	<b>Total caught</b>
American Robin	7	7	3		19
Blk.-capped Chickadee			1		1
Brown-headed Cowbird			2		2
Downy Woodpecker	1				1
Hermit Thrush	3	2	1		6
House Wren	1				1
Least Flycatcher	26	19	9	8	62
Northern Oriole	1				1
Ovenbird	1				1
Red-winged Blackbird	1		1	1	3
Rose-breasted Grosbeak	2				2
Ruby-throated Hummingbird				1	1
Warbling Vireo			1		1
Yellow-bellied Sapsucker	1				1
<b>Total</b>	<b>43</b>	<b>28</b>	<b>17</b>	<b>10</b>	<b>100</b>

SOPO Station Species	Captures				
	Banded	Repeats	Return/Recov	Other	Total caught
American Goldfinch	5				5
American Robin	7	1		2	10
Blackthroated Blue Warbler	1				1
Blk.-capped Chickadee	23	7	1	4	35
Brown-headed Cowbird	1		2		3
Cedar Waxwing	10				10
Clay-Colored Sparrow	2			1	3
Common Grackle	1				1
Common Yellowthroat	3				3
Downy Woodpecker	1				1
Eastern Kingbird	1				1
Gray Catbird	1				1
Hairy Woodpecker	1			1	2
House Wren	5				5
Least Flycatcher	73	15	2	5	95
Marsh Wren	2			2	4
Myrtle Warbler	1				1
Nelson's Sparrow	1				1
Northern Waterthrush	2				2
Purple Finch	1				1
Red-eyed Vireo	1				1
Red-winged Blackbird	30		1	9	40
Rosebreasted Grosbeak	1				1
Ruby-crowned Kinglet	1				1
Savannah Sparrow	1	1			2
Song Sparrow	13		4		17
Sora	1				1
Swamp Sparrow	4	2	1	1	8
Tennessee Warbler	7				7
Unid. Trail's Flycatcher	13	2		1	16
Warbling Vireo	11	1	1	1	14
Yellow Warbler	29	8	2	2	41
Yellow-bellied Sapsucker	2				2
<b>Total</b>	<b>244</b>	<b>36</b>	<b>14</b>	<b>27</b>	<b>336</b>

LILA Station Species	Captures				
	Banded	Repeats	Return/Recov	Other	Total caught
American Robin	3	3			6
Blk.-capped Chickadee	25	4		1	30
Brown-headed Cowbird	2				2
Cedar Waxwing	8	1			9
Clay-Colored Sparrow	1				1
Common Yellowthroat	1				1
Downy Woodpecker	2				2
Gray Catbird	2				2
House Wren	4				4
House Wren	3			1	4
Least Flycatcher	52	17	1	8	78
Northern Oriole	1	1			2
Red-winged Blackbird	4	1		1	6
Song Sparrow	11	2			13
Swamp Sparrow	3				3
Unid. Trail's Flycatcher	9	3			12
White-throated Sparrow	3				3
Yellow Warbler	13	1			14
Yellow-bellied Sapsucker	3	6		1	10
<b>Total</b>	<b>144</b>	<b>30</b>	<b>1</b>	<b>11</b>	<b>202</b>