



Beaverhill Bird Observatory
Summer Report 2017

By
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&
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Highlights

The summer season of 2017 covers the period from June 12th to August 8th. During this time the Beaverhill Bird Observatory (BBO) programs were operated by Head Biologist Kevin Methuen and Assistant Biologists Meghan Jacklin and Sara Pearce Meijerink. Six rounds at three sites of the Monitoring Avian Productivity and Survivorship (MAPS) program were conducted, with a total of 615 birds captured. This is the highest number of captures the BBO has ever had in its 29 years of running the program! For a second year in a row, the BBO hosted another successful Geoff Holroyd Young Ornithologist Workshop and had seven youth spend a week on site learning about bird banding, conservation, and biology. BBO staff also conducted many nest searches, banded nestlings, provided educational outreach programming to the public, interpretive talks at the lab, interacted with visitors and volunteers and wrote interpretive articles for the local paper. Thirteen interns worked in the natural area surveying the bats, butterflies, species at risk, as well as the nesting House Wrens, Tree Swallows and the two Breeding Bird Census grids.



Cedar Waxwing caught at LILA station. (Photo credit: Sara Pearce Meijerink)

Monitoring Avian Productivity and Survivorship

The MAPS program was created in 1989 by the Institute for Bird Populations to monitor and assess North American landbirds' 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.

The BBO started its MAPS program in 1989, which makes us one of the oldest participants in program's history. While the BLAB station remains operational, the new SOPO and LILA stations that were established in 2016 are flourishing! Each station includes 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 12th and August 8th. 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 balsam 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 balsam poplar forest. Banding at the BLAB station occurred on June 12th, June 19th, June 30th, July 9th, July 20th and July 31st.

BLAB had one of its slowest seasons in the last 29 years, with a total of only 60 birds captured, of 11 different species. We had an effort of 360 net hours, for a capture rate of 16.7 birds per 100 net hours. Least Flycatchers were our most frequently captured species (44) representing 73% of all birds caught. We also caught a number of House Wrens (6) and Downy Woodpeckers (2), we caught only one of each of the following; American Goldfinch, Baltimore Oriole, Black-capped Chickadee, Brown-headed Cowbird, Hairy Woodpecker, Hermit Thrush, Ovenbird and White-Throated Sparrow.



Baltimore Oriole caught at BLAB (Photo credit: Sara Pearce Meijerink)

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 balsam forest which transitions into willow that borders the two water bodies. Banding occurred at the SOPO station on June 13th, June 23rd, July 4th, July 13th, July 23rd and August 3rd.

At SOPO we captured 315 birds over 343 hours, producing a capture rate of 91.8 birds per 100 net hours. 28 species were caught, the most abundant being Least Flycatchers (73) followed by Yellow Warblers (49) and Clay-colored Sparrows (45). Other species of interest include Song Sparrows (23), Swamp Sparrows (11), Red-winged Blackbirds (9), Marsh Wrens (8), Gray Catbirds (5), Common Yellowthroat (1) and a Myrtle Warbler (1).



Common Yellowthroat caught at SOPO (Photo credit: Sara Pearce Meijerink)

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 balsam, transitioning into willows that border Lister Lake. Banding occurred at LILA on June 15th, June 29th, July 5th, July 14th, July 25th and August 8th.

The LILA nets caught a total of 240 birds in 340.5 hours for a capture rate of 70.5 birds per 100 net hours. Least Flycatchers were the most frequently captured bird (93), followed by Yellow Warbler (27), Cedar Waxwings (18), and Yellow-bellied Sapsucker (15). Other interesting captures included Tennessee Warblers (6), Pine Siskins (2), Rose-Breasted Grosbeak (1) and another Myrtle Warbler (1).



Male Red-winged Blackbird caught at LILA (Photo credit: Sara Pearce Meijerink)

Geoff Holroyd Young Ornithologist Workshop

The Geoff Holroyd Young Ornithologist Workshop operated for its second consecutive year in 2017. It was attended by seven keen young birders. The participants travelled from Ontario, British Columbia, and Alberta to attend the workshop. The workshop focused on banding skills with daily banding of Migration Monitoring and MAPS programs. By the end of the week each participant could band and extract some birds with supervision, and could readily identify many species. Each afternoon, guest speakers brought in their expertise to share with the young birders. Guest speakers included Geoff Holroyd (Tree Swallows, Burrowing Owls, and Isla Clarion), Brenda Dale (Citizen Science), David Lawrie (Moths and Butterflies) and Helen Trefry (Peregrine Falcon Conservation). Gerald Romanchuk led the Young Ornithologists to several birding locations in and around Elk Island Park for the Big Birding Day, where the youths found up to 118 species in one day. The Canadian Wildlife Service loaned a bird specimen collection to hone the birders identification and aging/sexing knowledge. The Young Ornithologists themselves participated in the release of rehabilitated orphaned ducklings courtesy of Kim Blomme from WildNorth. They also constructed 10 nest boxes for Saw-whet Owls in the natural area. Finally, Irene Crosland shared her mycological knowledge with a tour in the Beaverhill Natural Area. By participating in this week long workshop, Young Ornithologists experienced field biology for themselves, and learned much more about bird conservation and the threats facing birds today.



2017 Young Ornithologists group (missing Meghan Jacklin): Dawson Shufflit, Cole Gaerber, Nataliya Hontar, Annalena Thiesen, Isabel Apkarian, Megan Coleson, Jon Van Arragon, with Dr. Geoff Holroyd (Chair Beaverhill Bird Observatory), Helen Trefry (Board Member and Workshop organizer), banders Kevin Methuen and Sara Pearce Meijerink, and volunteer Luke Zhou (Photo credit: Helen Trefry)

Over the course of the Geoff Holroyd Young Ornithologists Workshop, the participants grew in confidence and bonded with other youth interested in nature. Every night the group explored the best shorebird viewing location in the area, the Weir, and found many rare species. We hope that this workshop will inspire them to become passionate biologists in the future.

Though this workshop was in its second year, it does not yet have a reliable source of funding. This workshop is offered free to participants to allow individuals who love nature but come from any background to participate. If you are interested in helping to sponsor a Young Ornithologist to attend next year's workshop, contact Helen Trefry at helentrefry@gmail.com. A \$400 donation covers the cost of one participant attending the workshop.

Thank you once again to guest speakers Geoff Holroyd, Brenda Dale, David Lawrie, Helen Trefry, Gerald Romanchuk, Kim Blomme, and Irene Crosland. A huge thank you to Helen Trefry for meal planning and groceries for the entire event, and thank you to Irene for dessert! Thank you to Geoff Holroyd for helping Helen organize this workshop and for your expertise.

Nest Searches

On non-banding days, staff performed numerous nest searches for natural bird nests in the Beaverhill Natural Area. Searches included incidental recordings of nests found when incubating birds were flushed, active searching for forest bird nests, and active searching for grassland bird nests. Each time a nest was found a nest card from the Prairie Nest Record Scheme was filled out, detailing GPS location, habitat, nest location, number of eggs and young, and stage of growth. This data can be used to add to existing knowledge about nesting behavior and timing of nesting of prairie birds.

In 2017, 57 nests were found of 18 different species, the most common being Least Flycatcher (8) and Savannah Sparrow (8), followed by Mallard (7), House Wren (6), unidentified duck species (6), Blue-winged Teal (5), American Robin (3), Cedar Waxwing (2), Clay-colored Sparrow (2), and Green-winged Teal (2). Only one nest was found from Black-capped Chickadees, Common Goldeneye, Hermit Thrush, Northern Saw-whet Owl, Ruffed Grouse, Wilson's Snipe, an unidentified sparrow species, and an unidentified teal species. Out of all nests found, the outcome of 30 of them was uncertain, 9 failed, and 18 were successful in raising one or more chicks.



Natural Least Flycatcher nest 2017 (Photo credit: Meghan Jacklin)

Other Banding

This year 205 Tree Swallow boxes in the road grid, spiral grid, and new grid were monitored by four interns. Chicks were banded from June 18th to July 17th. Mountain Bluebird and Tree Swallow chicks were banded. There were four Mountain Bluebird chicks banded as well as one adult recapture. Of the Tree Swallows, 12 adults were captured and banded, and 208 chicks were banded. Two Tree Swallow adults were captured that had been previously banded. Two Savannah sparrow nestlings were banded from a natural nest along with their father, on Fathers Day, 2017.

Geoff Holroyd banded Ruby-throated Hummingbirds using a special feeder trap during the Young Ornithologists Workshop and later on with staff. He banded seven individuals and re-caught three banded in 2016.

This year, staff joined Geoff Holroyd and Glen Hvengaard for a Purple Martin banding spree in mid July. For three days, staff banded 541 Purple Martin chicks and 8 adults (37 recaptured) in the Camrose-Tofield region and more at the Ellis Bird Farm and multiple private residences. Staff began with target trapping previously banded adults at most locations, and were therefore able to get recaptures of adults of known age (most are banded as chicks). When as many banded adults had been recaptured as possible, staff moved on to banding chicks. Whenever nests were found to be affected by parasites, nest material was replaced and a slight insecticide was added when available. BBO staff hope to participate in Purple Martin banding for years to come.



Female Purple Martin (Photo credit: Sara Pearce Meijerink)

Other Events

Staff gave several educational presentations this summer. Lil Ducks Dayhome and visitors to Jurassic Forest received engaging presentations about Owls of Alberta. Both talks were accompanied by the newest member of the team, little Ricki the Saw-whet! Due to the large

volume of educational talks over the winter, little Ricki will give Ray a break and allow BBO to meet the demand of all those talks. Ricki is a sweet little owl so far.

Meghan Jacklin published an article in the Tofield Mercury discussing Least Flycatchers in the Beaverhill Natural area, and the ways that they are monitored at the BBO. Hopefully some of the locals were inspired to visit the BBO.

BBO is also privileged to receive the Community Environment Action Grant from the Alberta Climate Change Office to support educational talks in winter 2017. Climate change has dramatic impacts on many different plants, animals, and birds, which are already threatened by other factors. BBO will be at the forefront of education to help combat climate change and its effects.

Acknowledgements

The many projects and achievements this summer would not have been possible without our Chair of the Board Geoff Holroyd, and many board members, with special thanks to Helen Trefry. Geoff mowed trails before and after the Young Ornithologists Workshop, and wrote and edited grants, as well as other staff documents. Helen and Geoff coordinated the Young Ornithologists Workshop and Helen arranged all the meals for the event. We also thank Rose Scott for all her efforts as the Treasurer of the BBO. Thank you all for your hard work!

The BBO relied on help from many individuals to successfully complete all the projects undertaken this summer. We thank the following people for assistance with banding, painting signs, and searching for nests from June 12th to August 8th.

Irene Crosland

Helmi Hess

Alyshia Skurdal

Luke Zhou!

Victoria Hansen

Steve Andersen

Kalen Luck

Geoff Holroyd

Olivia Hares

Erin, Kelsey, and Mary Low

Tobias Tan

Jeremy Lambe

Trevor Gillis

Amelia Jowle

Laura

Helen and Phil Trefry

As well, the dedication of BBOs interns allowed us to monitor the productivity of Tree Swallows, House Wrens, and other breeding birds, in addition to monitoring the presence of bats and butterflies in the Beaverhill Natural Area. Many thanks to Board member Laurie Hunt for coordinating the interns, and the Alberta Serving Communities, internship Program (SCiP) for funding the internships. Also thanks to the intern's mentors. Individual reports are being prepared by the interns and edited by their mentors. These reports will be posted on the BBO website as they are completed.

Intern List

Brandi Charette (TRES)

Serena MacKay (TRES)

Robyn Schnierrer (TRES)

Cassandra Walker (TRES)

Myla-Rae Baldwin (Breeding Bird Census)

Hannah Smith (Breeding Bird Census)

Shyla Golly (HOWR)

Zach Antoniow (HOWR)

Erin Low (Bats)

Emily Gillmore (Bats)

Maya Frederickson (Butterflies)

Jeremy Lambe (Marsh Bird Monitoring)

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. Thank you!

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

Thank you to our financial supporters the Alberta Conservation Association, Alberta Liquor and Gaming Commission, TD Friends of the Environment, World Wildlife Fund Canada, Nature Canada (Charles Labatiuk Conservation Fund), Bird Studies Canada (Baillie Birdathon), and personal donations. Thank you for supporting BBO's programs!

Appendix 1. MAPS Raw Data

<i>BLAB Station Species</i>	<i>Captures</i>				<i>Totals</i>
	<i>Banded</i>	<i>Recapture s</i>	<i>Returns</i>	<i>Other</i>	
American Goldfinch			1		1
Baltimore Oriole			1		1
Black-capped Chickadee	1				1
Brown-headed Cowbird	1				1
Downy Woodpecker	2				2
Hairy Woodpecker			1		1
Hermit Thrush			1		1
House Wren	2	2		2	6
Least Flycatcher	18	9	14	3	44
Ovenbird	1				1
White-throated Sparrow			1		1
Totals	25	11	19	5	60



**Brown-headed Cowbird with a deformed bill caught at BLAB Station
(Photo credit: Sara Pearce Meijerink)**

<i>SOPO Station</i>	<i>Captures</i>				<i>Totals</i>
	<i>Banded</i>	<i>Recaptures</i>	<i>Returns</i>	<i>Other</i>	
American Goldfinch	7				7
American Robin	1				1
Baltimore Oriole			1		1
Black-capped Chickadee	8	3	2		13
Blue-winged Teal				2	2
Brown-headed Cowbird	1		2		3
Cedar Waxwing	5				5
Clay-coloured Sparrow	42	1		2	45
Common Yellowthroat	6				6
Downy Woodpecker	3		1	1	5
Gray Catbird	4	1			5
Hermit Thrush	3				3
House Wren	3		1	1	5
Least Flycatcher	50	3	15	5	73
Lincoln's Sparrow	1			1	2
Marsh Wren	8				8
Myrtle Warbler	1				1
Ovenbird	1				1
Red-winged Blackbird	8			1	9
Song Sparrow	15	4	2	2	23
Swainson's Thrush	2				2
Swamp Sparrow	9	2			11
Tennessee Warbler	16	1			17
Trail's Flycatcher	6			1	7
Warbling Vireo	6		2		8
White-throated Sparrow	2				2
Yellow Warbler	32	7	10		49
Yellow-bellied Sapsucker	1				1
<i>Totals</i>	241	22	36	16	315

<i>LILA Station</i> <i>Species</i>	<i>Captures</i>				<i>Totals</i>
	<i>Banded</i>	<i>Recaptures</i>	<i>Returns</i>	<i>Other</i>	
American Goldfinch				1	1
American Robin	3	1			4
Black-capped Chickadee	5	1	2		8
Brown-headed Cowbird	3		1	1	5
Cedar Waxwing	17	1			18
Clay-coloured Sparrow	11				11
Common Yellowthroat	1				1
Downy Woodpecker	3		1		4
Gray Catbird	1				1
Hairy Woodpecker	1				1
House Wren	8	2	1		11
Least Flycatcher	70	14	3	6	93
Marsh Wren	1			1	2
Myrtle Warbler	1				1
Pine Siskin	2				2
Red-winged Blackbird	2			1	3
Rose-breasted Grosbeak	1				1
Song Sparrow	6	1		2	9
Swamp Sparrow	1				1
Tennessee Warbler	4			2	6
Trail's Flycatcher	1				1
Warbling Vireo	7		1		8
White-throated Sparrow	2	1	1	2	6
Yellow Warbler	15	7	5		27
Yellow-bellied Sapsucker	6	8	1		15
<i>Totals</i>	172	36	16	16	240

Appendix 2. Nest Search Results

<i>Species</i>	<i>Outcome – Unknown</i>	<i>Success</i>	<i>Fail</i>	<i>Total</i>
American Robin	1	0	2	3
Black-capped Chickadee	0	1	0	1
Blue-winged Teal	4	1	0	5
Cedar Waxwing	0	2	0	2
Clay-coloured Sparrow	2	0	0	2
Common Goldeneye	1	0	0	1
Green-winged Teal	1	0	1	2
Hermit Thrush	0	0	1	1
House Wren	3	2	1	6
Least Flycatcher	6	2	0	8
Mallard	2	3	2	7
NSWO	0	0	1	1
Ruffed Grouse	0	1	0	1
Savannah Sparrow	2	6	0	8
Unknown Duck	5	0	1	6
Unknown Sparrow	1	0	0	1
Unknown Teal	1	0	0	1
WISN	1	0	0	1
<i>Total</i>	30	18	9	57