



Beaverhill Bird Observatory
Summer Report 2016

By
Kevin Methuen

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Introduction

The 2016 summer season covers the period from June 10th to August 8th. During that time, summer programs at the Beaverhill Bird Observatory (BBO) were operated by Head Biologist Kevin Methuen and Assistant Biologists Meghan Jacklin and Emily Cicon. BBO staff conducted six rounds of the Monitoring Avian Productivity and Survivorship (MAPS) program and caught 532 birds, which was the highest number of captures since BBO joined the MAPS program 28 years ago! The BBO hosted eight youths for the inaugural Geoff Holroyd Young Ornithologist Workshop, which was a phenomenal success. BBO staff also monitored bat boxes, searched for nests, banded nestlings, wrote scientific and interpretive articles, and interacted with visitors and volunteers at the lab. Eight interns surveyed nesting Tree Swallows, House Wrens, two breeding bird grids and butterflies.



Marsh Wren captured at SOPO station. (Photo credit Geoff Holroyd)

Monitoring Avian Productivity and Survivorship

The Institute for Bird Populations created the MAPS program in 1989 to assess and monitor the adult survivorship, post-fledging productivity, and population dynamics of

breeding, North American land birds. The data obtained from the MAPS program can provide critical conservation and management information on bird populations. The MAPS program employs constant-effort mist netting and banding to gather data on breeding birds.

The BBO is one of the oldest participants in the MAPS program, having established the BLAB station in 1989. The WEIR and PARK stations were created in 1994 and 1996 respectively. Significant habitat changes have occurred at our MAPS sites since the 1990's, which have led to declining capture rates. We decided it was time to revitalize this project, so we established two new stations, Sora Pond (SOPO) which replaced WEIR, and Lister Lake (LILA) which replaced PARK. See individual station sections below, and Appendix 1, for full banding results.

At each station we set up ten standard songbird mist nets (12 m long by 2.6 m tall, 30mm mesh) at sunrise and monitored them for 6 hours in each ten-day period between June 10 and August 8. In recent years the BBO has only banded in MAPS periods five through nine, however this year we banded in period ten as well because it is part of the “Young Superperiod” when there are a significant number of hatch year birds in the Natural Area. Banding only occurred during weather conditions with no precipitation, temperatures between 0 °C and 27 °C, and wind speed of 20 km/h or less.



Emily Cicon with a Yellow-shafted Flicker caught at BLAB. (Photo credit Kevin Methuen)

BLAB

The BLAB station was located near the banding lab (N53.38055° W112.52737°) with most of the nets found southeast of the lab. The habitat here used to be described as young willow, aspen and poplar near water, however due to 28 years of succession and fluctuating water levels in Beaverhill Lake, the habitat today is more accurately described as mixed age aspen and poplar forest. Banding occurred at BLAB on June 16th, June 27th, July 4th, July 14th, July 26th, and the final period was split over August 3rd and 4th.

The BLAB nets recorded 93 captures of 11 species over the maximum effort of 360 net hours, for a capture rate of 25.8 birds per 100 net hours. Least Flycatcher was captured the most (64), representing 69% of all birds caught. Other notable captures included Yellow-shafted Flicker (1), Baltimore Oriole (1), Cedar Waxwing (3), and Hermit Thrush (4).

SOPo

The SOPo station (N53.37936° W112.51921°) was located around the intersection of Flicker Freeway and Harrier Highway. The habitat here was composed of mixed age aspen and poplar which transitioned into willows that bordered two wetlands; Sora Pond and Lister Lake.



Jeremy Lambe with a Rose-breasted Grosbeak captured at SOPo. (Photo credit Geoff Holroyd)

Banding occurred at SOPO on June 18th, June 23rd, July 6th, July 7th, August 2nd, and August 7th. Period 7 was split over July 6th and 7th due to rain, while period 8 was missed due to flooding in the Natural Area.

The SOPO nets recorded 254 captures of 28 species over 275 hours, for a capture rate of 92.4 birds per 100 net hours. Yellow Warbler was captured the most (73) followed by Least Flycatcher (61) and Marsh Wren (20). Other notable captures included Tree Swallow (1), Red-winged Blackbird (7), Ruby-throated Hummingbird (1), Philadelphia Vireo (1), Northern Waterthrush (1), Common Yellowthroat (2), and Black-and-White Warbler (1).

LILA

The LILA station (N53.37216° W112.52930°) was on Harrier Highway along the shore of Lister Lake, just east of the viewpoint. The habitat at this site was also mixed age aspen and poplar, transitioning into willows that formed a narrow corridor along Lister Lake. Banding occurred at LILA on June 20th, June 28th, July 9th, July 27th, and August 5th. Period 8 was missed due to flooding in the Natural Area.

The LILA nets recorded 185 captures of 26 species over 300 hours, for a capture rate of 61.7 birds per 100 net hours. Least Flycatcher was caught the most (50) followed by Yellow Warbler (29) and Song Sparrow (16). The most exciting capture at this station was a Long-eared Owl!

Geoff Holroyd Young Ornithologist Workshop (written by Helen Trefry)

The first ever Beaverhill Bird Observatory's Geoff Holroyd Young Ornithologists' Workshop ran from July 31st to August 6th, 2016. The fun and enthusiastic group of students made for an enjoyable and productive week. The eight students came from across central Alberta with a common interest in birds and nature. During the week they improved their bird identification skills and every morning they were taught how to extract birds from mist nets and band them. The week included short talks with topics as diverse as bird identification and photography (Gerald Romanchuk), Tree Swallow ecology (Geoff Holroyd) and Peregrine Falcon recovery (Gordon Court). David Lawrie and Loney Dickson led a field trip to learn about local butterflies. Other local field trips allowed the students to band Purple Martins, canoe, release rehabilitated ducklings and handle raptors. While camping at the banding station and getting up to band at 5 am they experienced a glimpse of a field biologist's life. By learning about the lives and plights of the local breeding birds and those migrating through the area they gained a better understanding of bird conservation issues.

The similar Doug Tarry Young Ornithologist program at Long Point Bird Observatory has seen their program become a jumping off point for many leaders in bird conservation. We saw the same enthusiasm and leadership skills in BBO's group of budding ornithologists.

Two of the students attended both programs, providing them with a Canadian bird monitoring experience from east and west.



2016 Beaverhill Bird Observatory's Young Ornithologist Workshop group (missing Meghan Jacklin): Dr. Geoff Holroyd (Chair Beaverhill Bird Observatory), Larry Zhong, Robin Moore, Myles Grieve, Luke Nelson, Charlotte Wasyluk, Carson Hvenegaard, Stephanie Olson, Jeremy Lambe, and banders Kevin Methuen and Emily Cicon, and Helen Trefry (BBO Board Member and workshop organizer). In front is Jackie, camp mascot. (Photo credit Phil Trefry)

We hope the Workshop will become an annual event. BBO was unable to secure new funding for the workshop since the workshop is not directly affecting a large number of people. If you wish to support a student in 2017, your \$200 donation will ensure a student can attend! Contact helentrefry@gmail.com if you are interested in supporting a future young naturalist.

Leaders Helen Trefry and Geoff Holroyd want to extend a big thank you to those already mentioned as well as Jeff Manchak, Dan Verhoeff, Kim Bloome, and Irene Crossland for assisting. A HUGE thanks to the staff, Kevin Methuen, Emily Cicon and Megan Jacklin for helping to make the week a memorable one for the students. The Tofield IGA provided a much appreciated discount on groceries.

Nest Searches

Starting in spring, then more regularly in summer, BBO staff searched for nests in and around the Beaverhill Natural Area. When a nest was located, a nest record card was filled out with coordinates, species, number of young, habitat, and other information. At the end of the season, these cards will be submitted to the Prairie Nest Records Scheme. The data collected will be used to study breeding biology as well as monitor distributional changes and nesting success of birds in the prairie provinces. The tables below separate natural nests from those that were found in nest boxes, baskets, or houses.

Table 1. Natural nests

Species	# of natural of nests found
House Wren	7
Long-eared Owl	1
Black-capped Chickadee	3
Least Flycatcher	13
Great Horned Owl	1
American Robin	2
Clay-colored Sparrow	3
Hairy Woodpecker	1
Swainson's Hawk	1
American Crow	1
Short-eared Owl	2
Cedar Waxwing	1
Yellow Warbler	2
Blue-winged Teal	1
Total	39

Table 2. Nests in artificial structures

Species	# of boxes/baskets occupied
Mountain Bluebird	7
Northern Saw-whet Owl	1
White-breasted Nuthatch	2
Long-eared Owl	1
Purple Martin	1
Total	12

Other Banding

BBO staff banded Tree Swallow nestlings from the Old, New, and Road grids that contain 205 nest boxes. In total, 409 Tree Swallow nestlings were banded along with 4 adults. Staff also banded 9 House Wren nestlings and 12 Mountain Bluebird nestlings from nest boxes in and around the Natural Area. Two Long-eared Owl chicks were also banded from a nest near the lab that staff were monitoring.

Kim Bloome from the Wildlife Rehabilitation Society of Edmonton brought three Black-capped Chickadees to their new home in the Natural Area. These young birds were banded and promptly re-introduced to the wild.

Geoff Holroyd trapped hummingbirds at the lab during the Young Ornithologists' Workshop and afterwards. Twelve Ruby-throated Hummingbirds were banded.

Other Events

Emily and Meghan hosted St. Paul's United Church Group "Church in the Woods" program on July 5th. 17 kids aged 4-11 were treated to Tree Swallow nestling banding, followed by feeder bird banding. Black-capped Chickadee, Red-winged Blackbird, and Downy Woodpecker were caught near the feeders and kids were given a close up look at these species while staff banded and processed them.

One article by Emily Cicon was published in the Tofield Mercury about the flooding of Lister Lake and apparent filling of the Beaverhill Lake bed.

Bat Monitoring

The BBO provided roosting opportunities for a variety of bat species in the Natural Area this summer, in addition to monitoring their activity. Four more bat boxes were installed this summer, for a total of 12. These boxes were monitored by BBO staff twice a week, and bats were discovered on more than half the checks, usually alone or in pairs. An additional 26 boxes will be installed in the Natural Area this fall.

Jody Rintoul from the University of Alberta's Augustana campus in Camrose operated the BBO bat detector this summer. So far this year, the detector has found Little Brown, Big Brown, and Hoary Bats using the Natural Area. Thank you Jody for volunteering your time on this project, and offering an expert opinion on bat box design and installation.

Acknowledgements

Helen Trefry and Geoff Holroyd were heavily involved in the success of our summer programs. Helen developed and coordinated the Young Ornithologist Workshop, helped with banding, and patched the road into the lab. Geoff also assisted the Young Ornithologist Workshop, wrote and edited grant applications, helped with banding and patching the road, and mowed trails in advance of the workshop. Thank you both very much! We also thank Debra King for her volunteer efforts as Treasurer for the past year, and we welcome Rose Scott as the new BBO treasurer.

The BBO staff relied on the help of countless other volunteers who were involved in the Young Ornithologist Workshop, provided extra banding support, helped us establish our new MAPS stations, painted signs, searched for nests, and cleared trails. A huge thanks goes out to the following individuals:

Allyn Essau

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Thank you to Steve and Kay from the Wildbird General Store for providing us monthly in-kind support in the form of bird seed.

The Tofield Library is the unofficial BBO afternoon office complete with couches to write reports, and the ability to scan and print. Thank you Connie, Diane, Susan, Ashley, and Katelynn for your weekly support.

Our activities at the BBO received financial support from Alberta Conservation Association, Alberta Liquor and Gaming Commission, TD Friends of the Environment, Nature Canada's Labatiuk Fund, Bird Studies Canada's Baillie Fund, and personal donations. Thank you for supporting our programs.

Appendix 1. MAPS Raw Data

BLAB Station Species	Captures			
	Banded	Recap	Other	Total
American Robin	1	2		3
Baltimore Oriole	1			1
Black-capped Chickadee	1	7		8
Brown-headed Cowbird		1		1
Cedar Waxwing	2	1		3
Downy Woodpecker	1	1		2
Hermit Thrush	1	3		4
House Wren	1	1	3	5
Least Flycatcher	31	32	1	64
Warbling Vireo		1		1
Yellow-shafted Flicker	1			1
Totals	40	49	4	93

SOPO Station Species	Captures			
	Banded	Recap	Other	Total
Alder Flycatcher	5	1	1	7
American Robin	2			2
Baltimore Oriole		1		1
Black-and-white Warbler	1			1
Black-capped Chickadee	9	4		13
Brown-headed Cowbird	3	2		5
Clay-colored Sparrow	9			9
Cedar Waxwing	9	1		10
Chipping Sparrow			1	1
Common Yellowthroat	2			2
Gray Catbird	3			3
House Wren	2			2
Least Flycatcher	49	8	4	61
Marsh Wren	16	1	3	20
Northern Waterthrush	1			1
Philadelphia Vireo	1			1
Rose-breasted Grosbeak	4			4
Red-eyed Vireo	1			1
Ruby-throated Hummingbird	1			1
Red-winged Blackbird	6		1	7
Song Sparrow	7			7
Swainson's Thrush			1	1
Tennessee Warbler	7			7

Tree Swallow	1			1
Traill's Flycatcher	4			4
Warbling Vireo	7	1		8
Yellow-bellied Sapsucker	1			1
Yellow Warbler	61	12		73
Totals	212	31	11	254

LILA Station Species	Captures			
	Banded	Recap	Other	Total
Alder Flycatcher	1			1
American Goldfinch	7	1		8
American Robin	3			3
Baltimore Oriole	1	1		2
Black-and-white Warbler	1			1
Black-capped Chickadee	6		1	7
Brown-headed Cowbird	1		1	2
Cedar Waxwing	8			8
Clay-colored Sparrow			1	1
Downy Woodpecker	2			2
Gray Catbird	1			1
Hermit Thrush	3			3
House Wren	6	1	1	8
Least Flycatcher	41	9		50
Long-eared Owl	1			1
Marsh Wren	1			1
Red-winged Blackbird	5			5
Rose-breasted Grosbeak	1			1
Song Sparrow	14	2		16
Swainson's Thrush	1			1
Tennessee Warbler	12	1		13
Traill's Flycatcher	1			1
Warbling Vireo	8	2		10
White-throated Sparrow	3	1		4
Yellow Warbler	24	3	2	29
Yellow-bellied Sapsucker	4	2		6
Totals	156	23	6	185

