



**Volume 30 Number 1**

**January 2017**

## **Beaverhill Bird Observatory Annual General Meeting**

**Monday, March 6th, 2017, at the University of Alberta.**

Come see how the BBO works! Learn about the biology, conservation, education and fun projects BBO is involved in. Report from our Treasurer, nominations for new board members, and voting in the new executive.

**Time:** 7:00 pm , with a regular executive meeting to follow

**Location:** Weldwood Room, 812 General Services Building, University of Alberta

**Cost:** Free, snacks and drinks provided.

**Contact:** geoffholroyd@gmail.com

**CHECK OUT THE NEW BBO WEB SITE:** [www.beaverhillbirds.com](http://www.beaverhillbirds.com)

**Thanks to the hard work of Darren McGregor, who with Kevin Methuen, Geoff Holroyd and many individuals wrote, edited and contributed to the much needed updating of the web site.**

**Like us on Facebook**

[www.facebook.com/BeaverhillBirdObservatory](http://www.facebook.com/BeaverhillBirdObservatory)

**GET YOUR LIFETIME Membership FOR \$10/individual here:**

**<http://beaverhillbirds.com/get-involved/become-a-member/>**

**OR:** Cheques can be made to the Beaverhill Bird Observatory can be sent to: Box 1418, Edmonton, Alberta, T5J 2N5

**Big Birding Breakfast will be Sunday June 4th**

[www.beaverhillbirds.com](http://www.beaverhillbirds.com)

## **BBO Education Program**

The BBO's series of educational presentations is back for the winter. Following the success of last two years, the program has been expanded with thanks to funding from the Edmonton Community Foundation. Officially beginning in November of 2016, the staff have already visited 18 different schools, libraries, and other organizations by mid-January, educating hundreds of students and other members of the public on a variety of topics, including the owls of Alberta and bird conservation. An educational owl is brought to the presentation for the attendees to visit with, in the hopes of inspiring them to further engage in conservation or maybe even pursue a career in biology! The presentations to schools are specific to each grade and the Alberta Education Curriculum. Spaces are still available for this series, which will end in April, so if you or anyone you know may be interested in booking this program, please contact us at [educationbeaverhillbirds@gmail.com](mailto:educationbeaverhillbirds@gmail.com) for availability and pricing information.

Emily Cicon (below) illustrates how “Ray” entertains the students in unpredictable ways!



**Thanks to Bill Poulson for volunteering to bring Ray back and forth to the city for talks, saving many kilometres of staff driving.**

## Owl Monitoring

2015 was a record year of owl monitoring for the observatory, and somehow the phenomenal owl numbers continued in 2016. BBO records were set for total captures of Northern Saw-whet Owls (566) Boreal Owls (8) and Long-eared Owls (9). The previous record for Saw-whet captures was 504, set in fall 2015. The breakdown of banding results can be viewed in Table 1 below. Another record was broken on October 22<sup>nd</sup>, when staff captured 40 owls in a single night, surpassing the previous record of 29 set in fall 2015.

Table 1. Total number and type of capture per species during 2016 owl migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2016 at BBO, Return captures were banded at BBO in a previous year, Foreign captures were banded at a location other than 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	Return	Foreign	Other	Total
Northern Saw-whet Owl	541	10		15		566
Boreal Owl	8					8
Long-eared Owl	7				2	9
<b>Totals</b>	<b>556</b>	<b>10</b>	<b>0</b>	<b>15</b>	<b>2</b>	<b>583</b>

Meghan Jacklin led the BBO's owl monitoring efforts this fall. The observatory was fortunate to have Sara Pearce-Meijerink, an experienced bander who stayed at the lab and volunteered for the entirety of the owl monitoring season, and Alyssa Bohart from the University of Alberta who was an owl monitoring intern, funded by Serving Communities internship Program (SCiP). Thanks also to Jim Beck and Gerry Beyersbergen for helping with owl banding.

### **COOL Northern Saw-whet Owl (NSWO) BAND RETURNS:**

Band number 0924-21195 HY-F was banded at the lab on 9 October 2016 and recovered in Colorado on 19 November 2016, dead due to hitting a 'stationary object' ( a window?); a distance of almost 2,000 km in 40 days.

A NSWO banded at BBO on 17 September 2014 was recovered on 24 October 2016, killed hitting the Vancouver Courthouse (another window?!). A western recovery of this species is very unusual.

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Meghan Jacklin (right) holds the final owl banded in 2016, not reported above:

**On the second last day of owl banding in November 2016, Sara Pearce- Meijerink (photo credit) and Meghan Jacklin had a surprise while doing chores at the Trefry Farm. A "guest" found his way into the pigeon coop... a young male great horned owl! What a perfect end to a record banding season!**



**Thanks to these bird bag-making awesome schools: St. Joseph High School, J.J. Bowlen Junior High School, Parkview School, St Cecilia Junior High School, St. Hilda Junior High School, Louis St. Laurent Catholic Junior High School, S. Bruce Smith Junior High School, and Academy at King Edward. Together they made over 90 replacement bird bags for transporting birds to the lab in the upcoming banding season. Please email [educationbeaverhillbirds@gmail.com](mailto:educationbeaverhillbirds@gmail.com) if you are interested in making bags too!**





## **Fence Flags now safe guard birds from striking fences in the Beaverhill Natural Area!**

BBO staff and volunteers installed fence “flags” on 2.2 km of fence that forms the north boundary of the Natural Area. These fence flags are cut from long strips of vinyl undersill trim, and serve to make the barb wire fence more visible to wildlife in order to reduce collisions and mortality associated with these fences. This is especially important for low flying species such as short-eared owls and northern harriers as they hunt small mammals in the dry lake bed.



**Bats are Important Too!** The BBO continued to increase roosting opportunities for bats in the Natural Area, while monitoring their activity. 12 bat boxes were checked twice a week this fall, with either one or two bats being found in each box on approximately every second check. Staff and volunteers installed an additional 26 boxes this fall in order to spread out the availability of roosting sites in the Natural Area. Jody Rintoul from the U of A’s Augustana campus operated the BBO bat detector in order to determine which species are

using the Natural Area. A big thanks to Jody for volunteering her time and lending us her expertise on bats.

**Migration Monitoring** summarized by Kevin Methuen

The Beaverhill Bird Observatory’s fall migration monitoring was conducted by Kevin Methuen, Meghan Jacklin and Emily Cicon. Migration monitoring was conducted from July 20<sup>th</sup> to October 20<sup>th</sup>, making it one of our longest fall monitoring periods in recent BBO history. BBO staff operated thirteen mist nets through these dates for a total of 4173.5 net-hours and recorded 1721 captures of 53 species, achieving an overall capture rate of 41.2 birds per 100 net-hours.

**Table 2. Numbers of captures, mist-netting effort, capture rates, and number of species caught during fall migration monitoring at the Beaverhill Bird Observatory since 2001.**

	2001	2002	2003	2004	2005	2006	2007	2008
Total Captures	2095	1734	1315	975	1256	1969	1079	892
Birds Banded	1758	1464	1093	818	1089	1525	952	723
Net hours (NH)	3679	4174	3818	3229	2787	3476	3534	3400
Capture Rate (birds/100 NH)	57.0	41.5	34.4	30.2	45.1	56.6	30.5	26.2
Species Captured	56	62	57	60	59	63	52	58
	2009	2010	2011	2012	2013	2014	2015	2016
Total Captures	875	880	701	978	631	738	1641	1721
Birds Banded	718	708	589	776	628	618	1393	1390
Net hours (NH)	3671	3190	3678	3683	3144	2565	4478	4174
Capture Rate (birds/100 NH)	23.8	27.6	19.1	26.6	20.1	28.8	36.6	41.2
Species Captured	51	60	53	57	45	46	58	53

The five most commonly caught species this fall included Least Flycatcher (355 birds captured, representing 21% of all captures), Myrtle Warbler (328 captures, 19% of total), Slate-colored Junco (113 captures, 7% of total), and a tie for fourth between Black-capped Chickadee and Tennessee Warbler (96 of each species captured, and each represented 6% of total). These five species accounted for 1066 of all captures, or 62% of the 1721 birds caught. See table 3 for full banding results.



As always, there were certain days of migration that made for unforgettable experiences at the banding lab. Noteworthy captures this fall included four Brown Creepers, thirteen Golden-crowned Kinglets, three LeConte’s Sparrows, three Nashville Warblers, five Ruby-throated Hummingbirds, one Philadelphia Vireo, and one Northern Shrike! On September 2<sup>nd</sup> we were rushing from net to net in order to process 128 captures, 86 of which were Myrtle Warblers!

**Table 3. Total number and type of capture per species during 2016 fall migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2016 at BBO, Return captures were banded at BBO in a previous year, Foreign captures were banded at a location other than BBO, and Other captures were caught in a mist net but released un-banded, or caught more than once in a single day.**

Species	Banded	Repeat	Return	Foreign	Other	Total
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Alder Flycatcher	16				16
American Goldfinch	10	2			12
American Redstart	27			1	28
American Robin	2				2
American Tree Sparrow	49	5		2	56
Black-and-white Warbler	4			1	5
Black-billed Magpie	1				1
Black-capped Chickadee	25	64	4	3	96
Blackpoll Warbler	11				11
Brown Creeper	4				4
Cedar Waxwing	4				4
Chipping Sparrow	4				4
Clay-colored Sparrow	51	12	2	3	68
Common Yellowthroat	4		1		5
Downy Woodpecker	6	3			9
Eastern Phoebe	1				1
Fox Sparrow	2				2
Golden-crowned Kinglet	13	1			14
Gray Catbird	2	3			5
Gray-cheeked Thrush	1				1
Hairy Woodpecker	1	1	1		3
Hermit Thrush	14	12			26
House Wren	43	19		3	65
Least Flycatcher	274	62	7	12	355
LeConte's Sparrow	3				3
Lincoln's Sparrow	5				5
Magnolia Warbler	22			1	23
Myrtle Warbler	307	16		5	328
Nashville Warbler	3				3
Northern Shrike	1				1
Northern Waterthrush	7				7



Orange-crowned Warbler	69	1		1	71	
Ovenbird	22				22	
Palm Warbler	5				5	
Philadelphia Vireo	1				1	
Red-breasted Nuthatch	4				4	
Red-eyed Vireo	7				7	
Rose-breasted Grosbeak	4	1	1	1	7	
Ruby-crowned Kinglet	7				7	
Ruby-throated Hummingbird				5	5	
Slate-colored Junco	84	28		1	113	
Song Sparrow	11			1	12	
Swainson's Thrush	25				25	
Tennessee Warbler	87	7	1	1	96	
Traill's Flycatcher	14			2	16	
Warbling Vireo	37	11	4	3	55	
White-breasted Nuthatch	3			1	4	
White-crowned Sparrow	5				5	
White-throated Sparrow	7				7	
Wilson's Warbler	13				13	
Yellow Warbler	63	14		1	78	
Yellow-bellied Flycatcher	2				2	
Yellow-bellied Sapsucker	3				3	
<b>Totals</b>	<b>1390</b>	<b>262</b>	<b>21</b>	<b>0</b>	<b>48</b>	<b>1721</b>

Staff surveyed birds along a standardized census route each day between July 20<sup>th</sup> and October 20<sup>th</sup>. 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. Highlights included a family of five Long-

eared Owls that we consistently saw in late July and early August, a Yellow Rail calling from Beaverhill Lake throughout August, a Broad-winged Hawk that hunted in the Natural Area for the last two weeks of August, 500 Sandhill Cranes on September 8<sup>th</sup>, 1000 Greater White-fronted Geese and 600 Snow Geese on October 2<sup>nd</sup>, and 82 swan spp. on October 19<sup>th</sup>.

## Purple Martin Research in Camrose

Submitted by Glen Hvenegaard and Katherine Rogers  
Camrose Wildlife Stewardship Society

The Camrose Wildlife Stewardship Society (CWSS) works to increase awareness of wildlife and greenspace in Camrose, incorporate wildlife and greenspace concerns in planning and management, minimize wildlife conflicts, and promote research on wildlife and habitat in Camrose. The CWSS's flagship species is the Purple Martin about which we have participated in several research projects over the past several years. We thank the BBO for allowing us to obtain a banding sub-permit through the BBO. Below is a summary of some of our natural science and social science research related to martins.

The CWSS conducts a yearly census to monitor martin populations. In 2003, there were only 8 pairs in Camrose, but this has risen to 84 pairs in 2016 (see Figure 1), with a high of 177 in 2009. This increase is due to the addition of many martin condominium-style nest box structures (see Figure 2) on city land and the work of many Camrose volunteers, especially local Purple Martin Landlords who manage martin nest boxes (including controlling sparrows and starlings, cleaning nests, and recording nesting progress). By involving more citizens in managing Purple Martins, we are better able to produce more martins each year, monitor populations, and help conserve the species. Most Camrose Landlords get involved in the CWSS Purple Martin program to “help a species in need”, “learn more about Purple Martins”, and “meeting like-minded people”. The social aspects of citizen science and serving as a martin landlord are critical to attracting and retaining participants (Hvenegaard and Fraser, 2014).

The CWSS celebrates its flagship species each year at the Camrose Purple Martin Festival. Through tours, speakers, and workshops, the festival provides an opportunity for local Purple Martin Landlords to learn from each other, share stories, and gain appreciation for martins and other wildlife. The festival also helps us recruit volunteer landlords for the city nest boxes, support martin research, and promote community development. Hvenegaard and Kaiser (2015) found that the festival attracts an average of 95 attendees each

year, 93% of which said that they would definitely or probably attend again. With an average age of 56 years, we see opportunity for intergeneration learning happening as older people are able to pass on their experiences of Purple Martins and wildlife in general to younger families.

Collaborating with Kevin Fraser from the University of Manitoba and Bridget Stutchbury from York University, we deployed geolocators on martins to track their annual migration patterns. When martins are recaptured the following year, the geolocators are downloaded to reveal daily movements over the entire year. Camrose has a lower retrieval rate of geolocators (only 9 recoveries of from 111 deployments) than other locations, probably due to the many nest boxes available in the city and region, which disperses the birds and makes re-sighting more difficult. Our first recovered bird travelled 22,000 km over the year, with a 3-week stopover in Iowa and a 5-week stopover in the Yucatan (Hvenegaard, 2014). Birds migrating northward show much faster speeds (up to 700 km/day) than those migrating south. With other contributors across North America, we are contributing to a larger data set in martin migration to and from North America. For example, we found (Stutchbury et al., 2016) that martins don't stay at one wintering site; 44% migrated within their winter range. Martins showing intertropical migration can stay at up to 4 distinct sites, often moving from the forested northwestern amazon to less forested regions in the south and east. This movement seems to be driven by a need to avoid competition as density increases in their core wintering region. In addition, we examined the relationship between distance travelled and body size and wing length (Lam et al., 2015). We found that smaller birds spent fewer days at fall stopover sites, but larger birds spent fewer days and took fewer stops along their spring migration. Wing length was not related with migration speed or stopover rates.

For more information on the Purple Martin program in Camrose, check out the CWSS at <http://camrose.com/168/Wildlife-Greenspace-Stewardship> or contact Dr. Glen Hvenegaard at the Augustana Campus, University of Alberta. [gth@ualberta.ca](mailto:gth@ualberta.ca)

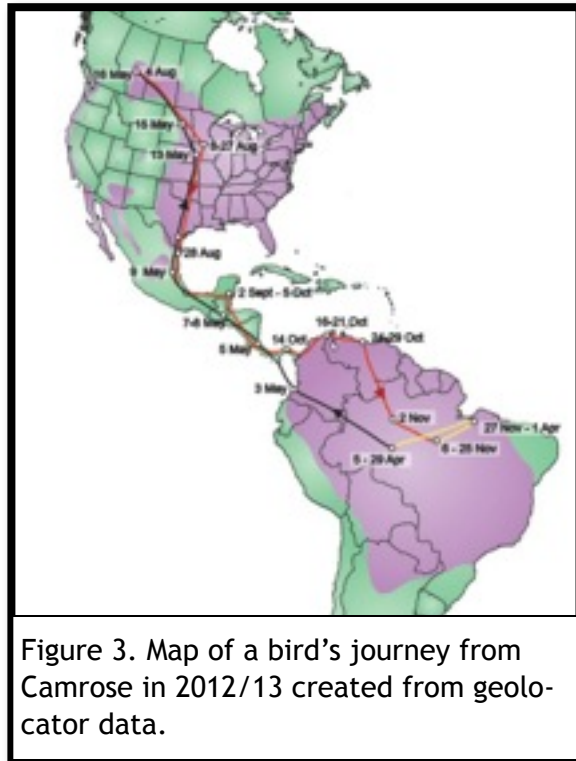


Figure 3. Map of a bird's journey from Camrose in 2012/13 created from geolocator data.

Something to watch for this spring as you come out to BBO:



One of the highlights for many local bird watchers in 2016 were the 4-5 Bobolinks that took up residence in the flooded hay field south of the road en route to Beaverhills Natural area and the banding station (photos by Irene Crosland). Watch for their return!



## **THANK TO those that makes BBO happen!**

The BBO extends massive thanks to our funders. Our 2016 fall operations were made possible by financial support from the Alberta Conservation Association, Alberta Liquor and Gaming Commission (Casino), TD Friends of the Environment, Nature Canada's Labatiuk Fund, Bird Studies Canada's Baillie Fund, the Edmonton Community Foundation, and personal donations. THANK YOU!

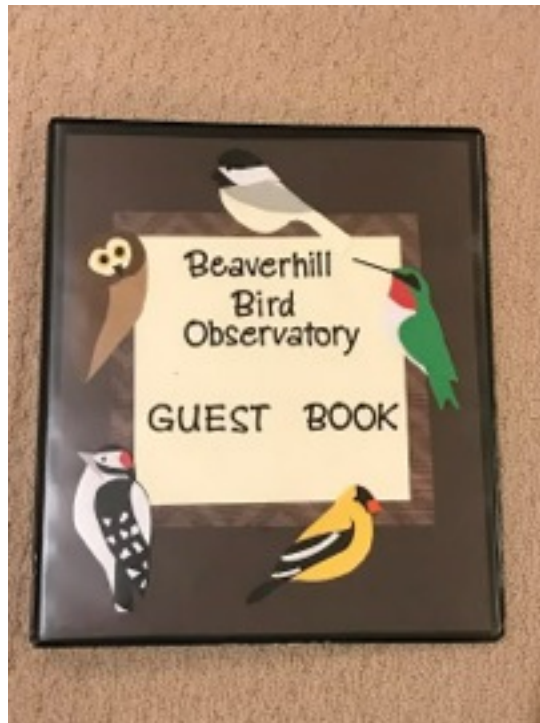
Thanks to Geoff Holroyd for editing grant applications and reports, writing budgets, buying and cutting fence flags, winterizing the lab, installing the world's largest bird feeder, and looking after the BBO staff. Thanks to Helen and Phil Trefry for lending us their truck



to patch the road, looking after the BBO staff, writing the Willet and for hosting Ray, the Northern Saw-whet Owl. Thanks to Rose Scott for handling BBO's finances. Thanks to Al Degroot for fixing picnic tables and winterizing the lab. Thanks to Irene Crosland for volunteer banding and providing local support to the BBO staff as field mom. A big thanks to all other board members who helped with various tasks like website development, Steaks and Saw-whets, and banding.

Thank you to Sara Pearce-Meijerink for living at the lab and volunteering for over two months during the owl season. Thank you to Jeremy Lambe for banding on a weekly basis, and Steve Andersen for bringing the staff so many treats. Thanks to Robyn Perkins for help with songbird banding, Chris Vervoort for helping design new bookmarks, and Alyssa Bohart for being an owl intern. A huge thanks to all other volunteers who helped with a variety of tasks and activities. Your time is greatly appreciated.

Thank you to Steve Kulak and Kay from the Wildbird General Store for providing monthly in-kind support of bird seed. The Tofield Library is the BBO afternoon office complete with couches to write reports, and the ability to access wifi, scan and print. Thank you Connie, Diane, Susan, Ashley, and Katelynn at the Tofield Library for the daily essential support. And THANK YOU to all the board members, volunteers and members for their help and activities on behalf of BBO.



**SEE YOU AT BBO THIS SPRING!**