

Volume 31 Number 4

Dec 2018

2019 Western Canada Bird Banding Conference

by Beaverhill Bird Observatory (BBO)

Dates: 29-31 March 2019, Edmonton, Alberta

The BBO invites you to a conference focusing on bird monitoring and studies using banding and other methods of studying bird movements. Participants will present new findings since the 2010 conference with talks by featured speakers, western Canadian banding stations, and individual banders. March 31st will be a symposium focused on studies of the Northern Sawwhet Owl and other northern owl species. This conference is open to bird banders, students, and interested members of the public. The conference will be held at King's University in Edmonton, Alberta.

Tentative schedule:

Friday March 29 7-9pm. **Featured speaker: Steven Price**, President, Bird Studies Canada will give a talk entitled "Long Point Bird Observatory: 60 years, One Million Birds, and Beyond".



Saturday March 30 9:00am-4:00pm. Canadian Migration Monitoring Network station presentations and individual presentations. Break refreshments provided. **Featured Speaker: David Brinker** from Maryland, about an 18 year banding study of Northern Goshawks.

Saturday March 30 5:00-8:00pm. Edmonton Nature Club Banquet option. **Featured speaker: Steven Price**, President, Bird Studies Canada "A Century of the Tri-national Migratory Bird Convention: Status of North America's Birds and the Need for More Ambition in Canada!" Purchase tickets directly from ENC in early 2019.

Sunday March 31. 9:00am – 4pm. Symposium on the ecology and movements of Northern Saw-whet Owls and other northern species. **Featured Speaker: David Brinker**, the founder of OwlNet, will talk about the ecology and movements of Northern Saw-whet Owls.

Registration limited to 125 participants: online at <u>www.beaverhillbirds.com</u>. Preregistration \$30 for the three days, \$20 for registered students before March 1, 2019. \$50 at the door.

If you are interested in being a speaker, please send an abstract of your talk with your name, contact information and talk title to chair@beaverhillbirds.com before 31 January 2019. For more information contact Geoff Holroyd at the above email.

Annual General Meeting for the BBO:

Are you interested in becoming an active Board member of BBO and being part of keeping the banding station and its many programs going? We can find a role for you!

Date and time: Monday April 8th 7:00 - 7:30 pm, with a regular executive meeting to follow.

Location: Headquarters Restaurant, #101, 100 Granada Boulevard, Sherwood Park, AB

Contact: If you are interested in becoming involved with BBO please contact Geoff Holroyd;

chair@beaverhillbirds.com, cell 587-783-9188.

Colonel Slade- A Great Legacy



BBO sadly expressed goodbyes to Colonel Slade, the Barred Owl, cared for by Dr. Gordon Court (Alberta Environment and Parks) as an educational owl and generously loaned out to many for educational talks. She died November 21st at the age of 16- the cause of death is believed to have been a stroke. Colonel Slade was a beloved owl in the Edmonton community for over 14 years. Originally found after being struck by a car, she lost her eye lens and with it, her depth perception. When found she was so light in weight that she was thought to be a male- when her weight doubled to 1100 grams they knew she was a female. By then the name Colonel Slade had stucknamed after the character played by Al Pacino in "The Scent of a Woman", a blind character purported to make the sound of a Barred Owl as well. She was used by Dr. Susan Hannon from the University of Alberta for graduate students to trap Barred Owls for research.



the old boreal forest her species depends on. She went to

schools and events, was on TV and in newspapers, all in order to teach the public about conservation issues. In her last couple of days she spent her time teaching the next generation, kindergarten students, about owls. Before she died she had her favourite meal (quail and a field mouse). She has been loved by so many people. Her legacy will forever live on.

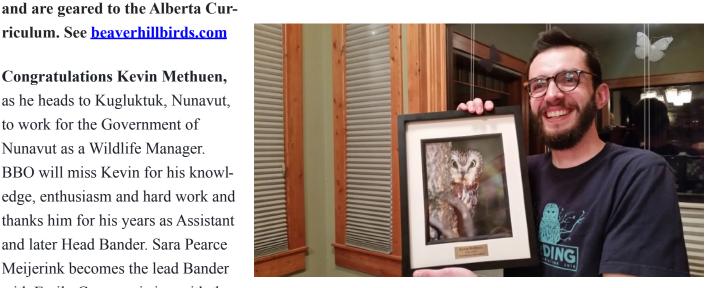
Thanks to Gordon Court for loaning the Colonel for BBO events, including a Rexall Place event on November 17th, 2018. "Moxie", an imprint female Peregrine Falcon (shown above by Helen Trefry), will replace her temporarily in the busy BBO school program.

If you know of a school or event interested in a talk with a live falcon or NSWO, contact: education@beaverhillbirds.com. These talks are focused on Birds, Climate Change and the Environment

riculum. See beaverhillbirds.com

Congratulations Kevin Methuen, as he heads to Kugluktuk, Nunavut, to work for the Government of Nunavut as a Wildlife Manager. BBO will miss Kevin for his knowledge, enthusiasm and hard work and thanks him for his years as Assistant and later Head Bander. Sara Pearce Meijerink becomes the lead Bander with Emily Grose assisting with the

winter programs.



BBO has a new "Raven's Roost", sleeping Quarters for Staff and Volunteers!



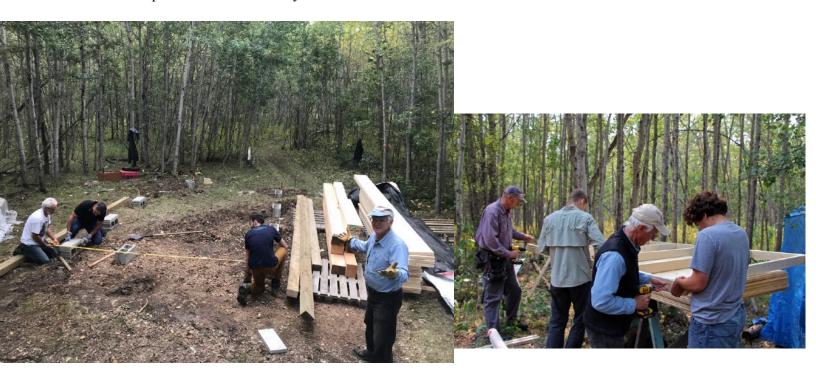
For over 30 years, Raven's Roost, the affectionate name of our first bunkhouse, has kept staff and overnight visitors safe from the elements and most mosquitoes. However, the exterior cover of pressboard allowed other occupants to enter at will including flying squirrels, bats, house wrens and assorted wasps among other critters. The BBO board decided it was time to replace the bunkhouse. The Sherwood Park Fish and Game Association heard about our funding needs and very generously gave BBO \$10,000 towards the building so that we could proceed with the purchase. Knotty Pine Cabins gave us a generous 10% discount to supply the building August 18th. Then the real work began. Al Degroot and John Scott stepped into the role as carpenters (Photo: Geoff Holroyd). They both devoted two or more days per

week over two months to assemble the beautiful and very functional new bunkhouse. A HUGE THANK YOU to both of them, to Wes Olson who helped and loaned his generator, compressor and nail guns. And a big thank you to Geoff Holroyd who oversaw the project and the many, many other volunteers and staff who helped Al and John to complete this large project.



The demolition of Raven's Roost took only 4 hours effort with a dedicated group of volunteers to be loaded onto John Scott's trailer and headed to the Ryley dump. Some of the lumber and insulation were saved. (Photos: Kevin Methuen)

The completion of the new Raven's Roost took much longer and involved hundreds of hours of volunteer help- everyone pitched in, including Board members, staff, former Young Ornithologists, interns and others that make up the BBO Community.





Purple Martin Dispersal and Age/Sex Structure

By: Carolyn Cook, Glen Hvenegaard, Geoff Holroyd and Hardy Pletz

What do little silver bands, fishing line, and bird lovers have in common? These are all important components of banding Purple Martins across central Alberta! During the months of June and July, staff at the Beaverhill Bird Observatory, Ellis Bird Farm, and the Augustana Campus of the University of Alberta, along with several volunteers, all raced against the clock to band and recapture purple martins before they left on their epic migration to South America.

Purple Martins (Progne subis) are part of the swallow family. They are aerial insectivores, meaning that they catch bugs mid-air! Here in central Alberta, we are near the northern edge of their range. Colonies of Purple Martins east of the Rockies only nest in human-made structures and are dependent on us for survival. Banding can be used to learn about



the dispersal patterns, age structure, and sex ratio of these birds. However, it is a very labor-intensive job. Purple Martins are not so docile that they would let someone walk up and put a band on their leg, so for us to get a hold of them we had to trap them in their nesting boxes. We focussed our efforts in central Alberta, roughly from Lacombe to Sherwood Park. The recapture process involved installing trap doors over their boxes, fishing line to pull on the trap doors, a keen eye, powerful telescopes, fast hands, and a lot of patience. We managed to band 62 new birds and recapture 91 previously banded birds, all adults or juveniles as we did not band nestlings this year. In the previous several years, though, Hardy Pletz in particular, banded a few thousand nestlings to help set the stage for the recapture phase of the study.



Results: The sex of recaptured adults was evenly split between males (48.4%) and females (49.5%) with only 2.2% of the recaptured birds remaining unknown. About 23% of the recovered birds were Second Year juveniles (SY) while 77% were After Second Year adults (ASY). The oldest bird we

recaptured this year was initially banded near Wetaskiwin in 2010, making it, at 8 years of age, one of the oldest recaptured bird in central Alberta.

Recapture records from the USGS Banding Office helped us determine the dispersal of recaptured birds. We did this by comparing where the bird was first banded to where we recaptured it. According to our data, 60 individuals out of 85 returned to the same place they were initially banded, suggesting high site fidelity and low natal dispersal. Most of these birds that did not disperse far were banded and recovered at the Ellis Bird Farm. Birds recovered at other colonies were further from their initial banding locations. Only 2 individuals dispersed further than 50 kilometers. The greatest distance was recorded from a male who was recovered 74 kilometers away from where it was first banded in 2016. Our results are consistent with last years' studies, though our sample size is relatively small. When we combine data from both 2017 and 2018, we'll be able to conduct some more rigorous statistical tests.

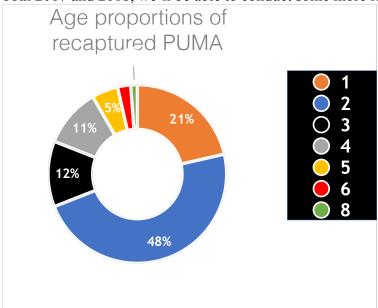


Figure 1. Proportions of each year-class among recaptured PUMA in 2018 (n=84).

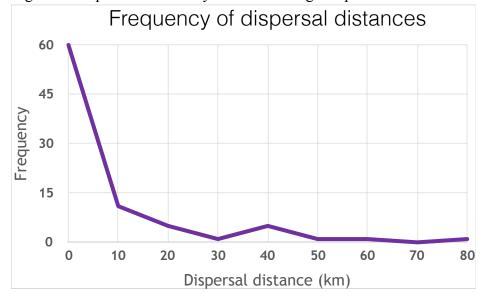


Figure 2. Dispersal distance frequencies of recaptured PUMA in 2018 (n=85).

Acknowledgements

We would like to thank the Purple Martin Landlords who supported our study by allowing us on their properties: Bob Buskas, Frank Lee (Sherwood Park Fish and Game Shooting Range), Marvin Traptow, Ellis Bird Farm, Allen and Ida Hay, Tom and Evva Tomaszewski, Rod Ross, Merv and Hazel Duchescherer, the Gaberts (Duncan, Roger, and Rose), and Pat Harris.

We would also like to acknowledge the volunteers who helped in collecting the data including Amalia and Robert Renman, Emily Grose, Pam Hvenegaard, Leif Hvenegaard, Rod Ross (and his son and family), Ellis Bird Farm staff (especially Myrna Pearman and Alisha Ritchie), Sara Pearce Meijerink, Jeremy Lambe, Jim Wesley, and the Sherwood Park Fish and Game crew (especially Frank Lee, Rich Rothwell, Douglas Burton, and Jarett Crosley). We particularly acknowledge the many years that Hardy Pletz banded over 2,000 young martins per year, which made this study possible.

2018 Alberta Nocturnal Owl Survey a Quiet One

BY: Lisa Takats Priestley, STRIX Ecological Consulting

2018 was the 17th year for the Alberta Nocturnal Owl Survey. The program started in 1998 coordinated by volunteers with support from Alberta Environment and Parks. The survey gained momentum in 2002 when Bird Studies Canada initiated the national nocturnal owl survey and helped support the Alberta program. From 2004 through 2014 the program was supported through Beaverhill Bird Observatory. The Alberta survey is now coordinated by STRIX Ecological Consulting with continued support from Beaverhill Bird Observatory and Bird Studies Canada. We had 190 volunteers survey 97 owl survey routes across Alberta between March 20 and May 5, 2018! We thank all the volunteers that have been participating in the program!!

Low numbers of owls were detected in 2018. Many volunteers commented on how quiet surveys were. The winter was long in Alberta, and spring came late. Small mammal populations also cycle every three to four years. Higher numbers of breeding owls were detected in 2015 and 2016, which suggests small mammal populations were high but are now on the low end of the cycle in 2017 and 2018. Owl nestbox and platform programs in Alberta and Saskatchewan also reported very low numbers of Saw-whet, Great Gray, and Great Horned Owls nesting (M. Blom, H. Fisher, C. Priestley pers. comm.). Owls will not attempt breeding if conditions are not favorable for successful breeding. With long-term monitoring, we can begin to see these natural fluctuations, and determine whether populations are increasing, decreasing, or remaining stable over many years.

Table 1: Number of owls observed per route (10 stations), Alberta Nocturnal Owl Survey 2011-2018.

				YEAR				
Species	2011	2012	2013	2014	2015	2016	2017	2018
Boreal Owl	0.35	0.51	0.30	0.41	0.41	0.39	0.44	0.26
Barred Owl	0.21	0.25	0.16	0.18	0.21	0.21	0.20	0.23
Great Gray Owl	0.08	0.14	0.07	0.10	0.11	0.12	0.09	0.1
Great Horned Owl	2.15	1.99	1.64	1.85	2.12	2.06	2.04	1.86
Long-eared Owl	0.15	0.16	0.30	0.32	0.29	0.26	0.29	0.25

Northern Pygmy Owl	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02
Northern Saw-whet Owl	1.78	2.83	1.35	1.75	2.02	3.01	1.67	1.42
Short-eared Owl	0.01	0.02	0.00	0.00	0.01	0.00	0.00	0.01
Number of Routes	100	99	100	98	98	99	98	97
Number of Volunteers	190	185	192	186	190	192	187	190

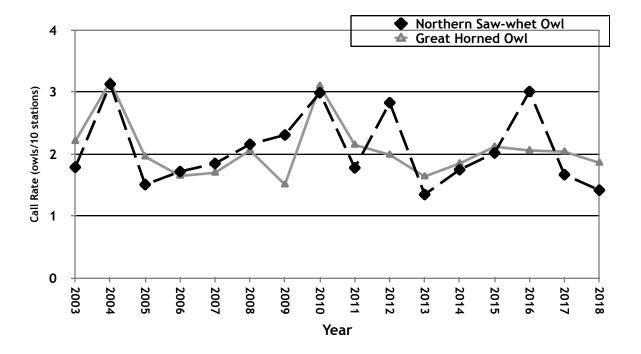


Figure 1. Call rates of Northern Saw-whet and Great Horned Owls during nocturnal owls surveys in Alberta 2003-2018.



In 2019, the Alberta Nocturnal Owl Survey Program will be joining other owl programs across Canada in giving volunteers the option of entering their own data through Nature Counts. This will also allow volunteers to access previous years of surveys. More information will be sent to volunteers when the site is ready.

If you would like to participate in the 2019 survey please contact Lisa Priestley at e-mail: lisa@STRIXeco.ca or phone (780) 918-4804.

Migration Monitoring by Kevin Methuen

The BBO's fall migration monitoring was conducted by Kevin Methuen, Emily Grose and Sara Pearce Meijerink along with Stephanie Thunberg, a songbird intern. Migration monitoring was conducted from July 20th to October 10th, and later on October 17th to 19th to ensure all migrants had left the area. A daily census continued until October 19th to visually account for other late migrants. BBO staff operated thirteen mist nets and recorded 2029 captures of 62 species, resulting in an overall capture rate of 49.15 birds per 100 net-hours. Owl monitoring numbers were average this year, with 322 total captures. Staff, dedicated volunteers, student interns, and board members completed numerous education 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 July 20th to October 10th and then reopened from October 17th to October 19th on days that were above zero degrees Celsius, relatively calm, and free of precipitation. A total of 4127.65 net-hours was accumulated, despite a snowy September which did not allow staff to achieve full hours on several days (Table 1). 2029 birds were captured, of which 1692 were newly banded. This marked the highest number of captures in autumn since 2001, and the highest number of banded birds since 2001! Species diversity was high this year, with 62 distinct species captured, the most since 2006!

Table 1. Numbers of captures, mist-netting effort, capture rates, and number of species caught during fall migration monitoring at the Beaverhill Bird Observatory since 2003.

	2003	2004	2005	2006	2007	2008	2009	2010
Total Captures	1315	975	1256	1969	1079	892	875	880
Birds Banded	1093	818	1089	1525	952	723	718	708
Net hours (NH)	3818	3229	2787	3476	3534	3400	3671	3190
Capture Rate (birds/100 NH)	34.4	30.2	45.1	56.6	30.5	26.2	23.8	27.6
Species Captured	57	60	59	63	52	58	51	60
	2011	2012	2013	2014	2015	2016	2017	2018
Total Captures	701	978	631	738	1641	1721	1918	2029
Birds Banded	589	776	628	618	1393	1390	1620	1692
Net hours (NH)	3678	3683	3144	2565	4478	4174	4202	4128
Capture Rate (birds/100 NH)	19.1	26.6	20.1	28.8	36.6	41.2	45.6	49.15
Species Captured	53	57	45	46	58	53	52	62

The five most commonly caught species this fall were Myrtle Warbler (572 birds captured, representing 28.2% of all captures), Least Flycatcher (341 captures, 16.8% of total), Tennessee Warbler (172 captures, 8.5% of total), Yellow Warbler (156 captures, 7.7% of total), and Orange-crowned Warbler (105 captures,



Then on the last net check to close the nets we caught >150 birds!

usual. We caught 12 birds in the first 5.5 hours.

Table 2. Total number and type of capture per species during 2018 fall migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2018 at BBO, Return captures were banded at BBO in a previous year, the Foreign capture was 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
American Goldfinch	4					4
American Redstart	47	1			4	52
American Robin	1	1			1	3
American Tree Sparrow	13				1	14
Baltimore Oriole	1					1
Bay-breasted Warbler	2	1				3
Black and White Warbler	2					2
Black-capped Chickadee	30	52	12		7	101
Blackpoll Warbler	15				1	16
Black-throated Green Warbler	1					1
Blue Jay					1	1
Blue-headed Vireo	2					2
Brown Creeper	2					2
Canada Warbler	5				2	7
Cape May Warbler	2					2
Cedar Waxwing	3					3
Chipping Sparrow	1					1
Clay-coloured Sparrow	10	2			1	13
Common Yellowthroat	1					1
Connecticut Warbler	3					3
Downy Woodpecker	8	7	1			16
Golden-crowned Kinglet	2					2
Gray Catbird	1	1				2
Gray-cheeked Thrush	1					1
Hairy Woodpecker	2	4	2			8
Hermit Thrush	8	1			2	11

House Wren	41	24	2		4	71
Least Flycatcher	269	46	5		21	341
Lincoln's Sparrow	6					6
MacGillivray's Warbler	1					1
Magnolia Warbler	28	2			2	32
Marsh Wren	2					2
Mourning Warbler	2					2
Myrtle Warbler	552	5			15	572
Nashville Warbler	2					2
Northern Flicker	1					1
Northern Waterthrush	7				1	8
Orange-crowned Warbler	101	2			2	105
Ovenbird	34				1	35
Philadelphia Vireo	1					1
Pileated Woodpecker	1					1
Red-breasted Nuthatch	12				1	13
Red-eyed Vireo	5					5
Red-winged Blackbird	3				3	6
Rose-breasted Grosbeak	3	1	3			7
Ruby-crowned Kinglet	15				1	16
Ruby-throated Hummingbird					1	1
Slate-coloured Junco	12					12
Song Sparrow	8				1	9
Swainson's Thrush	33		1		2	36
Tennessee Warbler	141	23	1	1	6	172
Trail's Flycatcher	30	1			1	32
Warbling Vireo	4	1	1			6
Western Palm Warbler	43	2			1	46
Western Wood-Pewee	1					1
White-breasted Nuthatch	4	3			2	9

White-crowned Sparrow					1	1
White-throated Sparrow	10					10
Wilson's Warbler	27	2			1	30
Yellow Warbler	119	27	6		4	156
Yellow-bellied Flycatcher	2					2
Yellow-bellied Sapsucker	5	2				7
Totals	1692	211	34	1	91	2029

Staff surveyed birds along a standardized census route each morning between July 20th and October 19th. Each year, 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. This fall, raptor highlights included multiple sightings of Peregrine Falcon and Northern Goshawk. We observed tens of thousands of Greater White-fronted Geese, Snow Geese and Canada Geese migrating through the area which attracted several visitors towards the end of September. From early to mid-October, we observed a good number of Tundra Swans, Golden-crowned Kinglets, a couple of Brown Creepers, and Rough-legged Hawks moving through. We were also lucky enough to see a couple of Northern Saw-whet Owls near the lab and a Great-horned Owl while on census this fall.

Owl Monitoring by Sara Pearce Meijerink and Emily Grose



Sara Pearce Meijerink, Kevin Methuen and Emily Grose led BBO's owl monitoring program, along with owl interns Jeremy Lambe, Jonathan Farr, and Stephanie Thunberg. Four mist nets with a Saw-whet owl audio lure were utilized from September 1st to November 5th, two mist nets with a Boreal owl audio lure were set from October 15th to November 5th, and one mist net with a Long-eared owl audio lure was set from September 1st to November 5th. Nets were only operated on evenings that were calm, warmer than minus 15 degrees Celsius, and relatively free of precipitation.

A total of 825.35 playback-hours were accumulated (357.4 playback-hours of the Northern Saw-whet Owl call, 336.95 playback-hours of the Long-eared Owl call and 131 playback-hours of the Boreal Owl call) this autumn. For a total of **322 owl captures** (295 Northern Saw-whet Owls, 26 Long-eared Owls, and 1 Great-horned Owl) which resulted in a capture rate of 39 owls/100 playback-hours (Table 1).

Table 1. Total number and type of capture per species during 2018 owl migration monitoring at Beaverhill Bird Observatory (BBO). Repeat captures were banded in 2018 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
Northern Saw-whet Owl	284	6	1	3	1	295
Long-eared Owl	24	2				26
Boreal Owl						0
Great-horned Owl	1					1
Total	309	8	1	3	1	322



Everyone intrigued watching Sara Pearce-Meijerink band a wild Northern Saw-whet Owl.

Steaks and Saw-whets event was sold out September 28 and 29th.

Everyone had a great night at the observatory and enjoyed interacting with Ricki, one of our Northern Saw-whet education owls. Guests that stayed later in the evening got to enjoy all the stars and were thrilled to see wild Saw-whet Owls go through the banding process, as well as flying squirrels near the bird feeders. A very special thanks to all board members and volunteers who contributed this year!

Thanks to the Aviva Community Fund for their support of Steaks and Saw-whets.

Other Activities

When BBO staff are not busy with banding or interpretation, they complete a variety of other activities. This fall six new maternity bat boxes were erected throughout the Natural Area, built by volunteers and members Laurie Hunt, Phil and Helen Trefry and Geoff Holroyd. The Bat interns began monitoring their productivity this fall and the boxes will continue to be monitored next spring. The BBO also received new official Alberta Park signs which staff will put up throughout the natural area next spring. Thank you to Alberta Environment and Parks, Greg Ottway, Kevin Methuen, and Geoff Holroyd, who organized the sign order, and arranged for the pick-up/storage of the new signs. We are very excited to put up these fancy signs next year and will be looking for volunteers to assist.

THANKS TO EVERYONE THAT HELPS BEAVERHILL BIRD OBSERVATORY OPERATE AND GROW!

The BBO appreciates a recent large donation in memory of Mary Hughes Weir of Camrose. This donation will allow BBO to accomplish some major goals in 2019! Details to follow in a later edition.

Fortis Alberta recently donated \$5,000 for BBO to expand their inadequate solar operation in 2019.

Dr. Ruth Collins-Nakaion (seen below with Kevin Methuen), as a representative from Telus Edmonton Community Board Fund presented BBO with an oversized cheque on September 27th for \$20,000. This money will help support BBO's outreach events throughout the winter. We are extremely grateful for their contribution to our Education Program.



The BBO extends a massive thank you to the Fall operations funders: the Alberta Conservation Association, Alberta Gaming and Liquor Commission, Telus Edmonton Community Board Fund, TD Friends of the Environment, Nature Canada's Labatiuk Nature Endowment Fund, Bird Studies Canada's Baillie Fund, the Alberta Community Environment Action Grant Program, and Serving Communities Internship Program (SCiP), Aviva and Sherwood Park Fish and Game. In addition, we thank the many personal donors, including those helping with the building fund. The following list includes those that donate \$100 or more:

Geoff, Holroyd, Andra Bismanis, Al DeGroot, Rose and John Scott, Helen and Phil Trefry, Steve Anderson, Mallisa and Quentin Hillary (in Memory of Bill Huillery), Lisa Schenk, Edmonton Nature Club, Holy Family School, Hansen Distillery, F.R. Haythorne Jr. School, Stanley Nordstrom, Patrick Chan, Tofield Snow Goose Junior Forest Wardens, Gerry Beyersbergen, Janis Vos, Lynne and Loney Dickson, Petra Rowell, Shayna Hansen, Vivek Dabral, Linda Kershaw, Gerry McKeating, Peter Balagus, Alexa Watt, Stella Gillespie, Wildbird General Store and Wildlbird Unlimited.

If we have missed thanking you for your contribution, we express our regrets.

The conservation and outreach activities we conduct each year would simply not occur without the ongoing support we receive from our funders, volunteers, board members, and interns.

Thank you to everyone who made Steaks and Saw-whets a success: Geoff Holroyd, Irene Crosland, Helen and Phil Trefry, Laurie Hunt, Alyssa Bohart, Thea Carpenter, Andra Bismanis, Rolly Perrott, Steve Anderson, BBO staff, Jeremy Lambe, Stephanie Thunberg, and Johnathon Farr.

Thank you to our long-term volunteers this fall: Irene Crosland for volunteer banding and providing local support to the BBO staff and for checking the lab in the winter, Al Degroot for all his carpentry work, for winterizing the lab and looking after our solar power, John Scott for all of his carpentry work this fall, Helen and Phil Trefry for providing a second home to BBO staff and housing our two educational Northern Saw-whet Owls. Thank you to Gerry Beyersbergen, Emily Cicon, Meghan Jacklin, Alyssa Bohart, Geoff Holroyd, Helen Trefry and Marie-Eve Bedard for assisting with owl banding. Also, thanks to Greg Ottway, and Lawrence Lam for your assistance with banding and helping staff complete other tasks.

Thanks to Geoff Holroyd for mowing the trails in the Natural area, winterizing the lab, for editing grant applications and reports and for assisting BBO staff when required. Thank you to Helen Trefry for producing the Willet, and to Laurie Hunt and Art Hughes of Fort Saskatchewan Naturalist's Club for coordinating our internship program. Thanks to Rose Scott for handling BBO's finances, and Darren MacGregor for looking after the BBO's website. Thank you to Steve Anderson for producing an amazing video of Steaks and Saw-whets for the Aviva Grant. A big thanks to all other board members who helped with various tasks like Steaks and Saw-whets, outreach events and banding. The BBO could not run without all the support we receive from our board members.

A huge thanks to all other volunteers, and interns who helped with a variety of tasks and activities. You make the BBO an awesome place! Thank you, Connie, Diane, Susan, and Ashley at the Tofield Library for your daily and weekly support.