



The WILLET

Volume 33 Number 3

November 2020

Message from the BBO Chair, Dr. Geoff Holroyd

Ask not what your bird observatory can do for you, but what you can do for your bird observatory! In the past 5 years that I have been chair of BBO we have grown from 35 members to over 700! A thousand people per year visit BBO and the Beaverhill Natural Area and each winter we talk to over 10,000 students and adults across Alberta about bird ecology, conservation and climate change. What are your memories of BBO? Were you there at night excited to see the tiny but fierce saw-whet owls in person? Did you enjoy the chickadees at our feeders, or let a bird go after it was banded? Is the memory of the bird flipping over in your hand and flying off still fresh in your mind? What about the adventure of walking from the parking lot to the BBO site wondering if you would find your way back? How did your experiences at BBO help your career? The BBO has created many memories for you.



The BBO now needs your help. We embarked on an ambitious renewal two years ago when an unexpected gift from the Sherwood Park Fish and Game Association allowed us to replace our oldest bunkhouse. In the past two years donations in memory of Mary Weir have allowed us to dream of replacing our aging 'lab' with a modern solar powered education and research center. We have scrimped and saved over the five years to commit to our new building which is featured on the next page. We have the funds to finish the building but not the solar system needed to power the facility and receiving tower. Now we need your help to complete the system.

In this issue of the Willet you will also read about our opportunity to expand our endowment Legacy Fund which was established last year with our contribution of \$50,000 to the Edmonton Community Foundation which they matched. Our endowment fund is now valued at \$140,000! An anonymous donor to ECF will be matching contributions dollar-for-dollar from now until December 14th up to \$50,000. If we are all generous our endowment Legacy Fund could be almost a quarter million dollars by the end of the year. This fund will pay annual dividends in perpetuity, thereby ensuring the financial stability of BBO.

Finally we have created an account with FlipGive. If you join our team and make your purchases through FlipGive either through online shopping, 'gift' cards or other in-person purchases, BBO will get a donation at no expense to yourself! Please join and make purchases through FlipGive.

Enjoy this issue of the Willet with information about Our BirdSmart education program, reducing window kills, a summary of our autumn owl banding, two reflections by Shane our newest staff member, the rebuilding of the Francis Point blind, photos of the refilled Beaverhill Lake, and a new video about the Beaver Hills Biosphere.

Please Think Globally, Action Locally. Support your Bird Observatory.

The New Beaverhill Bird Observatory Education and Research Center and 80 foot Tower

Beaverhill Bird Observatory- Looking Up!

Despite the cancellation of the majority of BBO's programs, it has been an exciting summer with the on-going construction of BBO's new education and bird banding station. With the extended fall, MacLellan Carpentry was able to get the building enclosed before the snow arrived, with construction continuing into the winter. In addition, the installation of an 80 foot tower will allow both cellular and Wi-Fi connection and will enable BBO to become part of the Motus Wildlife Tracking



System, being the third location in Alberta after one at the Ellis Bird Farm and another in Calgary. The Motus Wildlife Tracking System is an international cooperative project

where a system of these towers detects tags placed on birds, bats and even insects (read more here: <https://motus.org/about/>). The tower also improves BBO's cell phone and wi-fi coverage. The delivery of a shipping container for secure storage was another achievement, having to be backed in with a few cm to spare on each side.

Many, many donors, event attendees, Board Members and volunteers have contributed in time and money to this huge effort in a very financially difficult year. **Thanks to all of you!** A special round of thanks goes to Geoff Holroyd and John and Rose Scott for many trips to BBO to help with the building endeavour and to the staff for working without a lab.

Because of all your efforts, BBO has made up much of the Covid shortfalls reported in the last Willet to complete the building. **The next hurdle is to pay for the solar installation next year- estimated at about \$37,000. If you wish to help BBO and relieve your tax burden, consider making a tax donation before year end. All donors providing \$1000 or more will have their name included on a plaque in the new building.** <https://www.canadahelps.org/en/charities/beaverhill-bird-observatory/>



Please consider helping make BBO a more self-sustainable organization!

Something that COVID has taught the BBO Board Members is that you can't count on anything being reliable, such as Casino funds, educational programming funds, government grants, etc during these unusual times. The BBO Board is now even more committed to looking at long term funding for the BBO. And we now have a chance to **DOUBLE YOUR DONATION!**

Here's how **YOU**, as a member, can help....

1. Make a donation to **Beaverhill Bird Observatory's Endowment Legacy Fund** with Edmonton Community Foundation. Any donations made by December 14, 2020 will be **matched** by ECF dollar-for-dollar up to \$50,000. The Legacy Fund pays out a minimum of 3.5% annually. From our 2019 fund BBO netted \$5690 (4%) in April 2020. These are monies BBO can count on year after year. Please visit this link to help contribute to our future: <https://www.canadahelps.org/en/charities/beaverhill-bird-observatory/campaign/endowment-fund/>

You can also earmark a fund in someone's name, as a memorial that keeps on giving.

2. Use FlipGive to earn money for BBO while you shop!

What is it? FlipGive is a way to make money for BBO while shopping for Christmas gifts, gas, groceries, or other things. FlipGive has been used since 2014 to raise millions for many organizations and receives an A+ from the Better Business Bureau. FlipGive works with leading brands and retailers (Sobeys, Safeway, IGA, Amazon, Indigo, Starbucks, Sportcheck, Esso, Under Armour, Walmart, Apple, etc <https://www.flipgive.com/brands>), all of which provide exclusive cash back for FlipGive members. Simply join BBO on FlipGive and start shopping through the app or team page and BBO will earn money every time you shop with popular brands. Just like almost every other online shopping site, FlipGive earns a commission from the stores and brands when team members make a purchase including 'gift' cards for your own shopping. Instead of keeping that money, they share it with us!

For example: If 25% of our 712 members purchased a \$100.00 Sobeys' Giftcard each week, $\$100.00 \times 3\% = \$3.00 \times 178 \text{ members} = \534.00 per week earned for BBO. That money could be used to help cover the salary of a biologist!

Join BBO's team now by clicking this link: <https://www.flipgive.com/teams/252710/joins/intro>

If you are prompted for a join code, enter this code **XFJXFQ**

So, remember to use FlipGive before you shop so BBO earns cash back. Check out <https://www.flipgive.com/brands> and just shop as usual.

To ensure your purchases are private and you do not receive unwanted e-mails from them, you can indicate this when setting it up your account.

BBO's BirdSmart Education Program Has Gone Digital!



As the world continues to change, so must we! BBO's BirdSmart Education Program has gone fully digital, offering interactive webinars with classrooms, students, homeschool groups, senior's homes and more! All our presentations are tailored to match the Alberta Curriculum and involve bringing a live bird of prey on screen for the students to see!

Presentations are aimed at Grade 1 to Adults, on the topics of bird conservation, ecology and climate change. Webinars are 1 hour long, involving a 45min presentation followed by a 15mins questions and answer period.



The cost for a 1 hour interactive webinar is \$50.

For a list of presentation topics to choose from, [visit our website](#).

Discover how our presentations match the curriculum [Here](#).

To find out more or book your webinar, contact education@beaverhillbirds.com



BBO's 2020 Fall Report

Our 2020 Fall Report has recently been published on our website! Click [HERE](#) to read about our fall migration daily census observations, what our owl banding season was like this year, and the fun challenges our staff had to endure while working without a building!



Francis Point Blind Re-built by Town of Tofield

Congratulations to the Town of Tofield for putting a new roof on the blind at Francis Point on the south shore of Beaverhill Lake. The blind was built decades ago and used for watching waterfowl and shorebirds on the south shore of the lake. As the lake dried up, the blind was used less. In the summer Pat Nolan noted the rotting roof and alerted Vanita Eglauer of the Town of Tofield. She did her magic and in the autumn a contractor put up a new roof, thereby weather proofing the blind. Congratulations to all involved and thanks.

If you want to visit the blind it is located about 3 km east of Tofield on highway 626, then north at the sign to the parking lot and a short walk through a patch of conifers and a line of deciduous trees. In winter Snowy Owls, Rough-legged Hawks, and Short-eared Owls have been seen from the blind.



Thanks to Board Member Alyssa Bohart for designing BBO's new Logo. It was decided that the elevators on the old logo were no longer relevant and that a logo with a fresh look was needed. Alyssa has designed some great posters and educational material for the BBO in the past as well.



Jim Kallal provided these photos taken this summer while flying his plane around Beaverhill Lake. This photo of the SW corner of Beaverhill Lake shows the dry vegetation on the lake bed that died from flooding as the lake refills on June 8th, 2020.

July 13, 2020 Taken above the BBO, with the weir to the right by the wing strut.



Beavers Make all the Difference

Did you know that beaver were once extirpated from the Beaver Hills area due to over-trapping and hunting? Did you know that most of the area was so badly burned it forever changed the tree composition, wiping out most conifers? This documentary is an interesting review of what makes the Beaver Hills special, the history and abuse of the area and how the reintroduction of beaver reclaimed some of the biodiversity.

<https://www.tvo.org/video/documentaries/striking-balance-beaver-hills-biosphere-reserve>

Autumn Migration of Saw-whet Owls at the Beaverhill Bird Observatory

By Sara Pearce Meijerink, Shane Abernethy and Geoff Holroyd

Saw-whet Owls were once considered permanent residents in their breeding territories in Alberta, although there were few winter records (Salt and Salt 1976). The lack of winter records could have indicated that they migrate, or at least some migrate out of central Alberta in autumn. Since the owls are relatively small and very cryptic, they are difficult to detect outside the breeding season. In 1986 the Edmonton Christmas Bird Count started nocturnal playback on count days and recorded peak numbers of 22 Saw-whet Owls in 1988 and 26 in 1993. This seemed to confirm that at least some of the owls were permanent residents in central Alberta.

After catching a few owls in the autumn, the Beaverhill Bird Observatory began monitoring the autumn migration of Saw-whet Owls in the Beaverhill Natural Area in 2002. The monitoring technique involves playing the male's spring territorial call surrounded by mist nets in the evening after sunset. BBO has typically had three mists in a U around the caller, and a fourth net about 50 m away following a North American protocol. We now play the caller starting 30 minutes after sunset for 6 hours in September and November, and 7 hours in October during the peak in their movements. Monitoring starts September 1 and ends in early November, depending upon the weather.

The 2020 season was unusual in many ways. COVID-19 resulted in reduced funding for staff and the need for physical distancing. Two staff were hired, while skilled volunteers provided additional help. The public continued to be interested in seeing the wild owls and learning from our biologists. A maximum of 10 visitors per night ensured social distancing while they watched the netting and banding process up close. Visitors and staff used masks even though they were outdoors, since the 6' distancing guideline was hard to maintain at all times when visitors wanted to see the owls, their wing molt, the bird band, etc. Visitors came from across Alberta, with people driving in from Edmonton, Spruce Grove, Tofield, Ryley, Lamont, Mundare, Vegreville, Red Deer, Calgary, and Rocky Mountain House. 472 visitors booked tickets online and joined us this fall for an exclusive evening of owl banding and learning. Thanks to all those hardy visitors for supporting BBO!

All of this was accomplished without a proper banding lab. A large canopy that covered a table, the banders and 10 visiting public provided the only shelter.



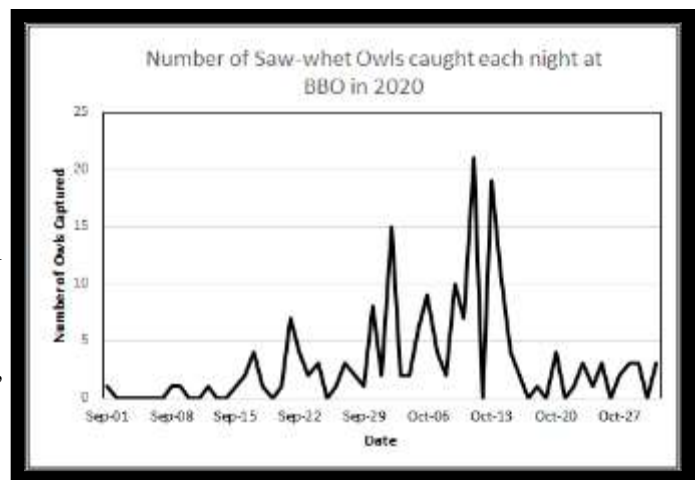
The second reason that 2020 was unusual was the very LOW number of owls with only 212 owls captured between 1 September and 31 October. On average our season captures for Northern Saw-whet Owls ranges anywhere from 300 – 500.

Another unusual characteristic of the 2020 season was the very low numbers of owls during the month of September. Usually few owls are caught in the first week of September followed by growing numbers in the second half of the month and the first half of October. In 2020 we had banded only 5 owls by September 15 and only 42 by the end of the month. The migration in 2020 basically occurred in the first two weeks of October, and then the owls were done except for a few stragglers.

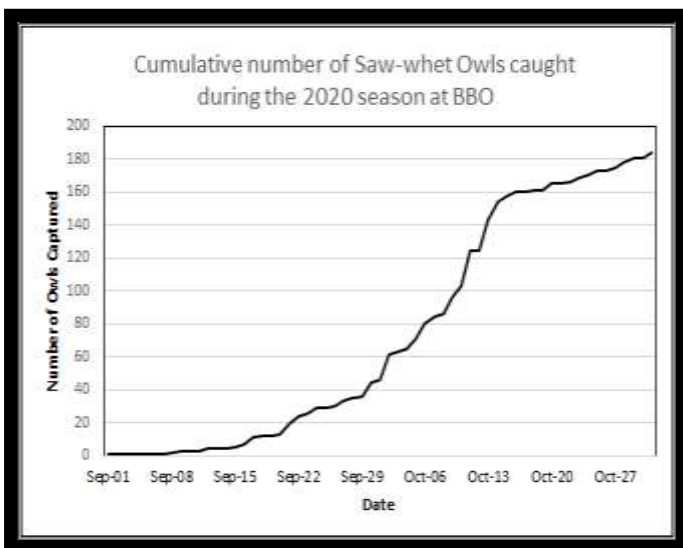
While we have these monitoring results, the question that always follows is WHY? First the low numbers are likely the result of the wet cool spring across the province and beyond. Edmonton received 75% of its average annual rainfall in May and June. Large rainfalls were a regular occurrence this year. We speculate that with cool wet weather many owls either didn't nest, failed or produced few young. The low number of owls would indicate that the owls did not have a good year. Another option is that the owls took a different route for migration. The ratio of young to adults was 1.7:1; in other words 3.4 young per breeding pair, expect that we catch far more females than males. A future comparison with other banders and those who monitor large numbers of nest boxes might help determine the difference.

An additional reason for the low numbers could also be the fact that Saw-whet Owl populations are cyclical, with natural highs and lows depending on rodent populations. In 2016 we had a peak year for Saw-whet Owls at the BBO with 566 owls captured in just two months! Since then our seasonal captures have been 364, 298, 443, and this year with 212. It could be that not only is this year a natural low for the owls, but on top of that, all the rainfall we receive early in the year further reduced their breeding success and impacted their overall population.

The lack of owls in September was likely due to the very warm temperatures in central Alberta. September saw temperature 10-20°C above normal. The owls only started to arrive at BBO when the first cool temperatures and north winds arrived. By the second half of October, the temperatures took a dive and were 15°C below normal. By then most owls had left, while the cold mornings challenged staff staying on site overnight to conduct songbird censuses each morning!



The many days of low capture rates with only one owl per night disappointed some public, but most were entertained by knowledgeable staff presentations and Rickie, our education Saw-whet Owl who lived on site. When wild owls were not caught, Rickie provided a close-up look at his species and photo-ops for the public.



One of BBO's 2019 banded owls was caught at Lesser Slave Lake Bird Observatory this year on September 30th. Another banded in September this year was caught north of Swift Current, Saskatchewan, a few days later; another was caught by Geoff Holroyd at Islet Lake only 20 km away. We caught four owls originally banded elsewhere. Two were banded by Harold Fisher last autumn near Prince Albert, Saskatchewan. We are waiting to hear back from the Bird Banding Office about the origin of the other two!

Out in the Cold: The Challenges of Banding Without a Lab

By Shane Abernethy – Assistant Biologist

This past fall season presented some rather unique challenges. The rustic nature of the BBO presents its fair share of challenges, of course: drinking water has to be brought in, cell reception is unreliable at best, the only power comes from portable generators, et cetera. However, there is always a central fixture to our operations: the lab. And this fall, the building that had served us well for the last 36 years was demolished to make way for a shiny new laboratory and education centre.

Unfortunately, it also left us in a rather awkward spot. For the entirety of the fall season, we had no building. We had the bunkhouses to sleep in, of course, but our cooking facilities, storage and banding lab were gone. Luckily, Geoff Holroyd, BBO's Chair of the Board, was kind enough to allow us the use of his camper trailer, which featured such luxuries as a table and a two-burner propane stove. This tiny camper became our kitchen, office and lounge over the course of the fall. Our

propane refrigerator ended up placed beside it, out in the open, which provided quite the surreal site to our visitors. For a time, it actually worked out quite well. A two-burner stove still allows a great deal of utility with some creativity, and the camper itself was a surprisingly comfortable space to lounge in during our off hours.

And then the warm weather went away.

Our September was highly unusual, featuring temperatures a good ten degrees above the typical average. In the second week of October, temperatures plummeted to nearly fifteen degrees *below* the typical average. With a building, this wouldn't be a problem. The stove and oven provided a good enough source of heat, and were in use often enough that the temperature in the lab rarely dropped below freezing. Without one, though, the sustained subzero temperatures quickly caused problems. Within days, the previously-comfortable temperatures in the bunkhouses dropped to the low single digits, most of the food in the refrigerator had frozen solid, and it was only by quickly transferring it into the bunkhouse that our drinking water stayed liquid. Among my various supplies, I'd brought a space heater, which would have easily kept one of the bunkhouses warm... had I anything to power it. Without a generator, it was just an awkwardly shaped paperweight.

The contractors working on the new lab building ended up saving the day. They were generous enough to let me plug my heater into their generator while they were using it. While it was never enough to make it comfortably warm in the bunkhouses, it was enough to keep temperatures above zero. With that, we were able to persevere through the rest of the season.



The spot where our banding lab used to stand, occupied here by the screw piles that will be used for the new one. While exciting, it wasn't much help this season.

The Eastern Bias: What do you mean this is common?

By Shane Abernethy – Assistant Biologist

Before moving to Alberta, Sara Pearce-Meijerink, our Head Biologist, wasn't actually all that interested in birds. Growing up in Ontario, her interests were captured by reptiles and amphibians which are abundant in the region. So when her career brought her out west and she began developing her birding skills while working with Birds Canada, Environment Canada and eventually the BBO, she was very familiar with our western species of birds. I, on the other hand, had already been working with birds in Ontario, and so when I moved to Alberta this August, I came with a rather skewed perspective of what was rare and what wasn't.



As an immediate example, I knew Greater White-Fronted Geese as an insane rarity, worthy of notifying every person with a pair of binoculars, that one is around. So imagine my confusion when I saw over 80 on my first day here. I would then go on to see thousands over the next month. On the flip side, I casually mentioned to Sara that I'd stumbled across nine Indigo Buntings while on a walk near my house, and was cut off by her exclamation of "*What?!*" Apparently that species has been on her "to see" list for years.

Once I'd actually arrived and settled in, we began amusing ourselves by comparing what we considered common. I was particularly amused to learn that Northern Parulas, a bird that breeds around my cottage near Algonquin Park, was considered something worth driving nearly an hour to see here. Meanwhile, I was extremely excited to see my first Canada Jay during a brief trip to Jasper on my days off, and Black-billed Magpies, which seem to be regarded as a bit of a pest by locals, are an enchanting splendor for me. Just look at that *tail*, and the striking blue on the wings, and the way the white contrasts with... ahem. I digress.

The biggest thing I've noticed upon my arrival here is the sheer amount and diversity of waterfowl in the small kettle ponds and wetlands dotted across the landscape. While Ontario has no shortage of wetlands and ponds, I generally don't see much more than rafts of Mallards and Canada Geese, and maybe the odd Common Merganser in cottage country. It's only during migration on one of the Great Lakes that I see much more than that. But here, I can go to any pond and see Shovelers, Widgeons, Buffleheads and Coots. So. Many. Coots. I could count the number of American Coot I'd seen on one hand before I moved west.

It has definitely taken some time to adjust my notions of rare and common. But one thing remains sure: the signal to any volunteers new to banding next year to get excited is if I'm utterly unimpressed by an odd-looking bird.

Birds and Window strike Prevention- What Has Worked For Us

By Alyssa Bohart, Helen Trefry (HT) and Geoff Holroyd (GH)

Whether you live in the city or the country, chances are birds have hit your windows. Often we see the bird fly off and assume it is alright, but half are estimated to die because of the concussion injury. An estimated **1.5 billion birds are killed annually** due to window collisions in Canada and the United States^{1,2}. It is thought to be the third biggest killer of birds, after habitat loss and cats. The Fatal Light Awareness Program (FLAP), is a good source of information on bird strikes (<https://flap.org/about/>). For decades they have been collecting dead birds and trying to lobby large office towers to make high rise windows safe for birds. But we also have a role to play in prevention with our homes.

Justine Kummer at the University of Alberta has looked at who kills more birds and GH was involved with the citizen science part of their study, recording window strike at his rural property. Kummer found residents with bird feeders kill twice as many birds as those without feeders. Each rural building kills more birds than individual urban buildings but there are far more urban buildings which contribute more to the overall mortality³.

The COVID pandemic has perhaps worsened the window strike problem as many people are turning toward bird watching, with feed sales reported to have doubled. With the growing declines in many of our bird populations, we owe it to our birds to do something about window strikes if we want to enjoy them in close proximity to our homes

We all know birds fly into windows often because they do not see them, but rather, a reflection of the sky and trees or something beyond that they are attracted to. Here are some of the recommended solutions³ to make your windows more visible to birds, and our shared experiences of those techniques we have tried and what worked for us.

1. **Cover your windows with coatings or objects⁴**. This allows birds to see the windows and avoid flying into them.
 - a. **Netting**. This involves getting some plastic netting and hanging it outside the windows. This worked 100% to prevent window strikes (GH and HT). GH has had it up for 5 years with no fatalities. Although some windows make it difficult to implement due to large size or windy locations, it works 100% and does not deteriorate quickly.
 - b. **Window decals/stickers**. This is often the first thing people try, because stickers are easily accessible and cute but they are ineffective unless the entire window is covered with stickers very close together (spacing 5-10 cm apart). HT found it 100% effective on a greenhouse window, preventing birds from trying to fly through.



c. **Hang CDs from a string.** This works especially well if you have a wide overhang over the windows. Birds do not like shiny spinning objects. This did not work for HT due to the wind but for one friend, they have found it reduced strikes to 1-2/month and they have multiple feeders and many birds in their yards.

d. **Ceramic frit glass-** this is a special glass that you purchase and thus is only applicable for new installations.

e. **One-way film.** This film is applied to windows and allows you to still see outside but others cannot see inside. It would be great for privacy but not for plants. It would work well for birds as the window is completely covered.

f. **ABC Bird Tape -** Rather than buy this tape, HT heard of a similar substitute- **Vertical lines drawn on the windows with a wide ink-based pen for glass.** The vertical lines are drawn 4 inches apart and the window can still be washed several times but it will start to wear after 2 seasons if the window is exposed to hard rains. So, it is long lasting and is not a great impediment to visibility. HT has had the lines on all windows for 2 years now and have had just one bird fatality, a sapsucker. It may be that woodpeckers feel they can fly through the narrow lines or the bird may have been spooked by a predator, in which case this is not as effective as netting. However, it is less obtrusive for visibility.

g. **UV decals or glass.** We have not tried these.

h. **Keep curtains, blinds, or shutters closed.** This can be useful if the room is not one that is often used or does not have plants near it.

3. **Move houseplants further from windows⁵.** Birds seek plants for cover from predators and if they see plants through your window, they may be an attractant for birds to fly into your window. This is however, impractical during the winter months when our plants need all the light they can get.

4. **Make sure bird attractants such as feeders are within 1 meter of your windows⁶.** Birds may still collide with your windows at this distance, but they do not gain the fast speeds that cause death/injury if they collide with your window. HT has a bird feeders that attach to the window and has gifted these as they are especially appealing for children, allowing them to view birds up close. Birds have bumped into the window when competing for space in the feeder but no birds appear to be injured.



Try one of the solutions that works for you, especially near feeders, but remember that bird strikes during migration are also important to avoid. If you do find an injured bird, please bring it to your local wildlife rehabilitation facility. We have heard of people giving injured birds whisky, but they need an anti-inflammatory drug to combat brain swelling instead!

Resources

¹Machtans, C. S., C. H. R. Wedeles, and E. M. Bayne. 2013. A first estimate for Canada of the number of birds killed by colliding with building windows. *Avian Conservation and Ecology* 8(2): 6. <http://dx.doi.org/10.5751/ACE-00568-080206>

²Loss SR, Will T, Loss SS, Marra PP. 2014. Bird-building collisions in the United States: estimates of annual mortality and species vulnerability. *The Condor* 116:8–23

³<https://birdswindows.biology.ualberta.ca/you-can-help/>

⁴Klem D. 1990. Collisions between birds and windows – mortality and prevention. *Journal of Field Ornithology* 61(1):120-128.

⁵Klem D. 2009. Preventing bird-window collisions. *Wilson Journal of Ornithology* 121(2):314-321.

⁶Klem D, Keck DC, Marty KL, Ball AJM, Niciu EE, Platt CT. 2004. Effects of window angling, feeder placement, and scavengers on avian mortality at plate glass. *Wilson Bulletin* 116(1):69-73.

Acknowledgements

As always, the work we do at BBO would not be possible without the support of our generous funders and donors, who have our gratitude. A special thanks also goes out to the many visitors who came out for owl nights this year, whose support eliminated the funding shortfall for our building caused by the spike in lumber prices.

A big thank you goes to our board members for keeping things running smoothly behind the scenes. Particular thanks go to Phil and Helen Trefry, who house our educational birds and generously allow our staff to use their living room as an unofficial office space, and to Geoff Holroyd for his assistance with grants and with our monitoring programs.

Thanks also goes out to the numerous volunteers who assisted with owl monitoring this season, including Christian Lunn, Meghan Jacklin, Irene Crosland, Helen Trefry, Janos Kovacs, Jordan Lang, Jac Curry, Emily Cicon, Stephanie Thunberg, Martine Dumont, Michelle Hoang, Priscilla Lai, Erin Low, and Austin Zeller. We couldn't have run our fall migration monitoring program as smoothly as we did without their generous help, and we doubly appreciate their willingness to put up with cold temperatures later in the season!

We also thank Steve and Kay of the Wildbird General Store for keeping our feeders topped up with donated seed. We also extend a heartfelt thank you to our many funders. The 2020 fall operations were made possible with financial support from the Alberta Gaming, Liquor and Cannabis Commission, TD Friends of the Environment, Nature Canada's Labatiuk Nature Endowment Fund, Bird Studies Canada's Baillie Fund, the Edmonton Community Fund and the Bass Pro Shops and Cabela's Outdoor Fund.