



**Fall Report 2024**

**Xavier Quantz**

**December, 2024**

## Introduction

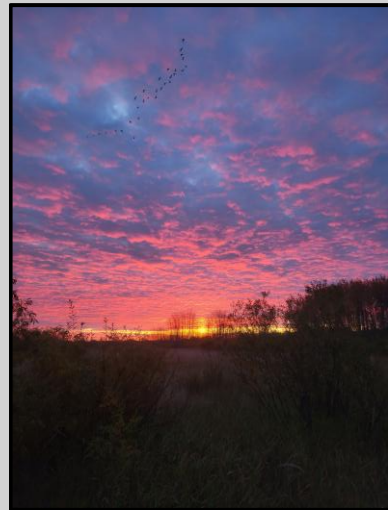
Another successful fall of banding and events at the Beaverhill Bird Observatory (BBO) has come and gone. The 20 nets of the fall songbird migration monitoring caught 2,267 birds between 65 species and owl migration monitoring caught 307 individuals of three species between the five audio lures being used. Next, between public banding events for both songbirds and owls, Supper and Saw-whets, and individual exploring the Beaverhill Natural Area over 1,000 people visited the BBO this fall. Finally, none of this would have been possible without the hard-working staff, board, and volunteers that make the BBO so successful.

## Songbird Migration Monitoring

Like spring, fall migration passed by in what feels like the blink of an eye. This year we operated our migration monitoring nets from July 23<sup>rd</sup> until October 20<sup>th</sup>. The season began with several windy and rainy days that limited our banding success; however, this gradually gave way to very mild weather which was a relief after a frigid spring and sweltering summer. Also, although the mosquitoes that plagued our summer disappeared, they were replaced with swarms of wasps. This cooperative weather meant that we didn't lose too many net hours and managed to stay comfortable (minus a couple of stings).

Throughout the season we totaled 2,267 captures across 20 nets with a cumulative 7,081.5 net hours meaning we averaged 32.0 captures/100 net-hours. As usual, our seven experimental nets made up the brunt of these birds

with 1,408 captures in just 1,228 net hours for a rate of 114.7 captures/100 net-hours. This leaves our 13 standard nets with 859 captures in 5,853.5 net hours for 14.7 captures/100 net-hours. Regarding diversity, 65 different species were captured. Of this number 58 were captured in experimental nets and 49 in standard nets, with significant overlap. As usual, the majority of our captures were made up of our most common species with the top three comprising over half of our captures. These species and their captures are 480 Yellow-rumped Warblers (Myrtle), 365 Yellow Warblers, and 360 Least Flycatchers. While there were no



One of the many glorious sunrises this fall.



The very last songbird of the fall was an equally adorable and ferocious Black-capped Chickadee.

exceptionally rare species captured this fall our 19 warbler species did include some infrequent visitors including a Connecticut Warbler and Nashville Warbler. Otherwise, some of the standout species include a Sedge Wren, Gray-cheeked Thrush, Brown Creeper, Red-shafted Flicker, and Northern Shrike. Also, our daily census revealed many songbird species that were migrating through the area but never managed to hit one of our nets; these species include a Black-throated Green Warbler, Vesper Sparrow, countless high-flying Lapland Longspurs and American Pipits, and many others.

Comparing the fall of 2024 to 2023, paints this year as being quite slow. This can be seen with the lower numbers almost entirely across the board, including capture rates and diversity, despite 2024 having quite a few more net hours. Overall, this season was resoundingly average as far as songbirds are concerned.



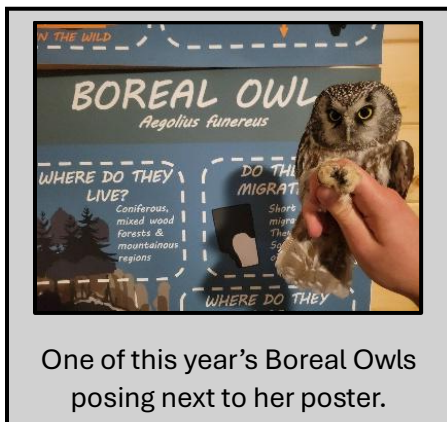
## Owl Migration Monitoring

As always, the songbird migration monitoring was accompanied by owl migration monitoring. This program ran from September 1<sup>st</sup> until November 7<sup>th</sup>. The mild weather and extraordinary aurora borealis along with all the owls helped to make this an excellent fall.

The ten owl nets and five audio lures that were used this year captured a total of 307 owls in 1,752 hours of playback for a rate of 17.5 captures/100 playback hours; a breakdown of the captures and capture rates for each speaker can be found at the end of this report. Four of these speakers are at previously used locations and each plays a different call; these calls are a male Northern Saw-whet Owl (NSWO), female Northern Saw-whet Owl, Long-eared Owl (LEOW), and Boreal Owl (BOOW). The fifth speaker and the two nets around it were brand new this year and this lure played an additional instance of the male Northern Saw-whet Owl call. The owls caught in these nets were divided among all three species we targeted with playback. As per usual, NSWOs made up the vast majority of the captures with 293 while there were nine LEOWs and five BOOWs caught. Aside from owls, our nets turned up a handful of bats and more Northern Flying Squirrels than we would have liked.



Boreal Owls don't just look mean (and cute) they have talons, and they certainly know how to use them.

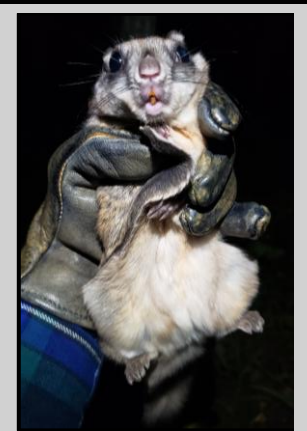


One of this year's Boreal Owls posing next to her poster.

Despite the addition of a new male NSWO audio lure the captures of this species saw little change with the new audio lure and old audio lure each having about half the capture rate of the old lure last year. Also, despite catching nine LEOW only one was caught with the LEOW audio lure with most of them being found in the new male NSWO nets. LEOWs are known to hunt NSWOs so perhaps they were all particularly hungry this year. Most of this fall's captures are

roughly on par with the previous year, with NSWO and LEOW captures both being slightly lower. On the other hand, the BBO hasn't caught five or more BOOWs in one season since 2016! This BOOW bonanza is one of the most notable highlights of the entire year. These five BOOWs definitely make up for the slightly lower NSWO and LEOW captures making this a great year for owls.

In addition to banding, the Motus project continued this year and even expanded to include LEOWs! Between these Motus projects 49 nanotags were attached to NSWOs and an additional two were used on LEOWs. These tags can be detected by Motus towers located across North America. Just like last year, each of these tags



An annoying Northern Flying Squirrel after being extracted from a net that it chewed to pieces.

was sponsored by a member of the public or organizations like the Edmonton Nature Club. As always, we look forward to watching the migration path of these nanotagged owls in the coming two years.

Besides the owls that were banded and tagged, a few other species were observed in the natural area. For one, a pair of Great Horned Owls were regularly heard hooting around the natural area and were even seen from time to time. Also, the Barred Owl made another appearance this year when it perched atop our Motus tower and gave an iconic hoot.



Eight of the Northern Saw-whet Owls and one of the Long-eared Owls (center) that were banded and nanotagged this fall. Owls have such expressive faces that each one seems to have its own personality.

## Events



Nina at Supper and Saw-whets doing what she does best: looking cute!



Tents and chairs set up for Supper and Saw-whets

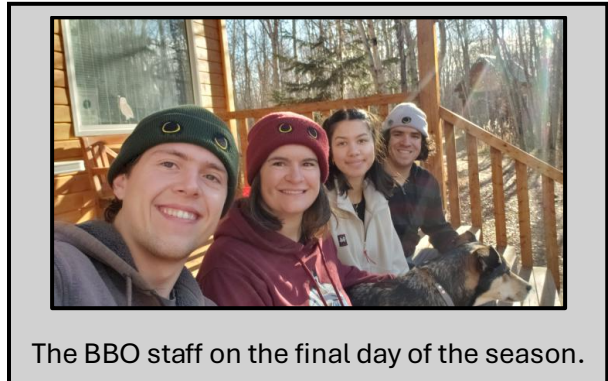
Our quiet banding days were also supplemented with many exciting education and fundraising events with the public. These include 13 songbird banding events that hosted a total of 166 visitors. Along with the public songbird events we also hosted private events for the Tofield Summer Program, Red Deer Polytechnic, University of Alberta, MacEwan Ecology and Conservation Club, and Lakeland College. Alongside the songbird events, 22 public owl banding events were completed and hosted a total of 388 people. In addition to the typical events, two nights of Supper and Saw-whets were held. Supper and Saw-whets hosted about 50 visitors each night and they were entertained by a variety of vegetarian foods and snacks, interpretation with Nina, colouring for the kids, and plenty of adorable NSWOs! Also, the 8<sup>th</sup> annual Geoff Holroyd's Young Ornithologists' Workshop overlapped with fall migration but you can read more about this event in the 2024 Summer Report. All these events are in addition to the numerous visitors exploring the natural area on their own whom the BBO staff were happy to make the time to talk with. All this activity resulted in the BBO entertaining over 1,000 visitors this fall!



The three adorable ambassador birds that joined us through the fall. From Left to right: Tansi the Great Horned Owl who is equally endearing and grumpy, Ken the Barbary Falcon who kept the lab lively with his constant screams, and Nina the Burrowing Owl who is endlessly adorable.

## Acknowledgements

The BBO staff formed a great team this fall! Thank you to Head Biologist Jana Teefy and Assistant Biologists Jon Van Arragon, Emelie Dykstra, Xavier Quantz, Sian Ford, and Ethan Denton for all the hard work you put in this fall. Also, thank you to our Official Greeter Jewels the dog, she never failed to give an excited greeting to anyone arriving at the lab.



The BBO staff on the final day of the season.

Next, if it wasn't for the many dedicated volunteers the banding and events at the BBO couldn't be nearly as expansive as they are.

These volunteers helped with everything from scribing, extracting, and banding to cooking and cleaning to entertaining event visitors and much more. Thank you to our volunteers Adara Cable, Camille Jodouin, Charlotte Pedersen, Christie Campbell, David Grinevitch, Elise Henze, Elyse Doane, Emily Cicon, Gabby Dubuis, Hazel Flesher, Irene Crosland, Jacqueline Kirtschig, Jasper June, Jay Froese, Jenelle Lamothe, Jocelyn Kublik, Julia Ritter, Kari White, Kelsey Poloney, Kendra Pittman, Kirstin Lachance, Kylli Morgan, Madison Szafranski, Mariana Prado, Matt Elson, Matt Halfacre, Megan Edgar, Meghan Jacklin, Millie Coleing, Nikolas Robinson, Patrick Goa, Pete Maguire, Sam Reimer, Stefanie Dorosz, Trish House, and Willow Zilliox.

Also, thank you to our board of directors for keeping everything running smoothly behind the scenes. Thank you to Geoff Holroyd, Chair, for his guidance on our numerous projects and his extensive biology and banding knowledge. Thank you to Helen (and Phil) Trefry, Vice Chair, for organizing the Young Ornithologists' Workshop and Supper and Saw-whets as well as for housing our ambassador birds. Thank you to all the cooks and helpers during those events including Carmen, Christie, Peter, Linda, Julianne, Claude, Patti, Rose, and Sian. Thank you to Rose Scott, Treasurer, for ensuring the finances of the BBO stay neat and tidy. Also, thank you to Darren McGregor, Website Director. Finally, thank you to our wonderful Directors at Large: Emily MacLellan, Glen Hvenegaard, Alyssa Bohart, Julianna Hayes, Warren Finlay, Brendan Casey, Richard Hedley, Kimberly Fulton, Sian Ford, Carmen Patry, and Christie Campbell.

Finally, thank you to all our Student Interns for taking on a variety of projects and for expanding our knowledge of the Beaverhill Natural Area through their reports that are now available on the Beaverhill Birds website. Our 2024 Student Interns are Michelle Turgeon, Addison Komarnisky, Billie Bilodeau, Aidan Flewelling, Caitlyn McLaughlin, Rylan Smigorowsky, Cheska Uy, Angie Areola, and Rayna Gilfillan. Last but not least, thank you to the Intern Mentors for lending their experience to the projects. Thank you: Glen Hvenegaard, Ivy Schoepf, Zach Antinow, Karin Snyder, John Acorn, and Doris Audet.

| <b>Species</b>                 | <b>Banded</b> | <b>Repeat<sup>1</sup></b> | <b>Return<sup>2</sup></b> | <b>Unbanded<sup>3</sup></b> | <b>Grand Total</b> |
|--------------------------------|---------------|---------------------------|---------------------------|-----------------------------|--------------------|
| American Redstart              | 6             |                           |                           |                             | 6                  |
| American Robin                 | 4             |                           |                           |                             | 4                  |
| American Tree Sparrow          | 4             | 3                         |                           |                             | 7                  |
| Baltimore Oriole               | 4             |                           |                           |                             | 4                  |
| Black-and-white Warbler        | 4             |                           |                           |                             | 4                  |
| Bay-breasted Warbler           | 2             |                           |                           |                             | 2                  |
| Black-capped Chickadee         | 17            | 65                        | 4                         | 1                           | 87                 |
| Blackpoll Warbler              | 4             |                           |                           |                             | 4                  |
| Brown Creeper                  | 1             |                           |                           |                             | 1                  |
| Canada Warbler                 | 3             |                           |                           |                             | 3                  |
| Clay-colored Sparrow           | 1             |                           |                           |                             | 1                  |
| Cedar Waxwing                  | 2             |                           |                           |                             | 2                  |
| Common Yellowthroat            | 2             |                           |                           |                             | 2                  |
| Downy Woodpecker               | 9             | 10                        | 2                         |                             | 21                 |
| Golden-crowned Kinglet         | 9             |                           |                           |                             | 9                  |
| Gray-cheeked Thrush            | 1             |                           |                           |                             | 1                  |
| Gray Catbird                   | 1             |                           |                           |                             | 1                  |
| Gambel's White-crowned Sparrow | 2             |                           |                           |                             | 2                  |
| Hairy Woodpecker               | 1             |                           | 1                         |                             | 2                  |
| Hermit Thrush                  | 3             | 2                         |                           |                             | 5                  |
| Northern House Wren            | 11            | 11                        |                           | 1                           | 23                 |
| Least Flycatcher               | 139           | 26                        |                           | 6                           | 171                |
| Lincoln's Sparrow              | 3             |                           |                           |                             | 3                  |
| Magnolia Warbler               | 3             |                           |                           |                             | 3                  |
| Mourning Warbler               | 1             |                           |                           |                             | 1                  |
| Myrtle Warbler                 | 265           | 21                        |                           | 2                           | 288                |
| Northern Waterthrush           | 3             |                           |                           |                             | 3                  |
| Orange-crowned Warbler         | 15            |                           |                           |                             | 15                 |
| Ovenbird                       | 14            |                           |                           | 1                           | 15                 |
| Rose-breasted Grosbeak         | 2             |                           |                           |                             | 2                  |
| Red-breasted Nuthatch          | 8             |                           |                           |                             | 8                  |
| Ruby-crowned Kinglet           | 2             |                           |                           |                             | 2                  |
| Red-eyed Vireo                 | 2             | 1                         |                           |                             | 3                  |
| Red-shafted Flicker            | 1             |                           |                           |                             | 1                  |
| Ruby-throated Hummingbird      |               |                           |                           | 5                           | 5                  |
| Slate-colored Junco            | 9             |                           |                           |                             | 9                  |
| Song Sparrow                   | 2             |                           |                           |                             | 2                  |
| Sharp-shinned Hawk             | 3             |                           |                           | 1                           | 4                  |
| Swainson's Thrush              | 15            |                           |                           |                             | 15                 |
| Tennessee Warbler              | 25            | 4                         |                           |                             | 29                 |
| Trail's Flycatcher             | 7             |                           |                           |                             | 7                  |
| Warbling Vireo                 | 7             | 1                         | 2                         |                             | 10                 |
| White-breasted Nuthatch        | 3             | 2                         |                           |                             | 5                  |
| Wilson's Warbler               | 1             |                           |                           |                             | 1                  |
| Western Palm Warbler           | 3             |                           |                           |                             | 3                  |
| White-throated Sparrow         | 10            | 1                         |                           |                             | 11                 |
| Yellow-bellied Flycatcher      | 2             |                           |                           |                             | 2                  |
| Yellow Warbler                 | 40            | 8                         |                           |                             | 48                 |
| Yellow-shafted Flicker         | 2             |                           |                           |                             | 2                  |
| <b>Grand Total</b>             | <b>678</b>    | <b>155</b>                | <b>9</b>                  | <b>17</b>                   | <b>859</b>         |

5853.5 net-hours

14.7 captures/100 net-hours

1 - banded 90 or fewer days ago, at the BBO

2 - banded over 90 days ago, at the BBO

3 - caught but not banded (e.g. escaped)



| <b>Species</b>                 | <b>Banded</b> | <b>Repeat<sup>1</sup></b> | <b>Return<sup>2</sup></b> | <b>Unbanded<sup>3</sup></b> | <b>Grand Total</b> |
|--------------------------------|---------------|---------------------------|---------------------------|-----------------------------|--------------------|
| American Goldfinch             | 3             |                           | 1                         |                             | 4                  |
| American Redstart              | 13            |                           |                           |                             | 13                 |
| American Tree Sparrow          | 60            | 2                         |                           | 2                           | 64                 |
| Baltimore Oriole               | 1             |                           |                           |                             | 1                  |
| Black-and-white Warbler        | 1             |                           |                           |                             | 1                  |
| Bay-breasted Warbler           | 3             |                           |                           | 1                           | 4                  |
| Black-capped Chickadee         | 32            | 22                        | 1                         | 1                           | 56                 |
| Brown-headed Cowbird           | 1             |                           |                           |                             | 1                  |
| Blue-headed Vireo              | 2             |                           |                           |                             | 2                  |
| Blackpoll Warbler              | 8             | 1                         |                           |                             | 9                  |
| Canada Warbler                 | 2             |                           |                           |                             | 2                  |
| Clay-colored Sparrow           | 91            | 9                         | 1                         | 2                           | 103                |
| Cedar Waxwing                  | 3             |                           |                           |                             | 3                  |
| Chipping Sparrow               | 3             |                           |                           |                             | 3                  |
| Cape May Warbler               | 2             |                           |                           |                             | 2                  |
| Connecticut Warbler            | 1             |                           |                           |                             | 1                  |
| Common Yellowthroat            | 9             |                           |                           |                             | 9                  |
| Downy Woodpecker               | 1             | 3                         |                           |                             | 4                  |
| Golden-crowned Kinglet         | 3             |                           |                           |                             | 3                  |
| Gray Catbird                   | 1             | 1                         |                           |                             | 2                  |
| Gambel's White-crowned Sparrow | 15            | 1                         |                           |                             | 16                 |
| Hermit Thrush                  | 1             |                           |                           |                             | 1                  |
| House Wren                     | 47            | 6                         |                           | 3                           | 56                 |
| LeConte's Sparrow              | 11            |                           |                           |                             | 11                 |
| Least Flycatcher               | 170           | 14                        | 1                         | 4                           | 189                |
| Lincoln's Sparrow              | 9             |                           |                           |                             | 9                  |
| Magnolia Warbler               | 14            |                           |                           |                             | 14                 |
| Marsh Wren                     | 2             |                           |                           |                             | 2                  |
| Mourning Warbler               | 1             |                           |                           |                             | 1                  |
| Myrtle Warbler                 | 178           | 12                        |                           | 2                           | 192                |
| Nashville Warbler              | 1             |                           |                           |                             | 1                  |
| Northern Waterthrush           | 2             |                           |                           |                             | 2                  |
| Northern Shrike                | 1             |                           |                           |                             | 1                  |
| Orange-crowned Warbler         | 38            | 1                         |                           | 2                           | 41                 |
| Oregon Junco                   | 1             |                           |                           |                             | 1                  |
| Ovenbird                       | 5             |                           |                           |                             | 5                  |
| Philadelphia Vireo             | 2             |                           |                           |                             | 2                  |
| Purple Finch                   | 1             |                           |                           |                             | 1                  |
| Rose-breasted Grosbeak         | 1             |                           |                           |                             | 1                  |
| Red-breasted Nuthatch          | 4             |                           |                           |                             | 4                  |
| Ruby-crowned Kinglet           | 16            |                           |                           | 1                           | 17                 |
| Red-eyed Vireo                 | 7             | 1                         |                           | 1                           | 9                  |
| Ruby-throated Hummingbird      |               |                           |                           | 1                           | 1                  |
| Savannah Sparrow               | 3             |                           |                           |                             | 3                  |
| Slate-colored Junco            | 8             |                           |                           | 1                           | 9                  |
| Sedge Wren                     | 1             |                           |                           |                             | 1                  |
| Song Sparrow                   | 12            |                           |                           |                             | 12                 |
| Swamp Sparrow                  | 1             |                           |                           |                             | 1                  |
| Swainson's Thrush              | 2             |                           |                           |                             | 2                  |
| Tennessee Warbler              | 91            | 14                        |                           | 4                           | 109                |
| Trail's Flycatcher             | 32            | 2                         |                           | 1                           | 35                 |
| Unknown Sparrow                |               |                           |                           | 1                           | 1                  |
| Warbling Vireo                 | 17            | 2                         | 2                         | 1                           | 22                 |
| Wilson's Warbler               | 16            |                           |                           |                             | 16                 |
| Western Palm Warbler           | 9             |                           |                           |                             | 9                  |
| White-throated Sparrow         | 5             | 1                         |                           |                             | 6                  |
| Yellow-bellied Sapsucker       | 1             |                           |                           |                             | 1                  |
| Yellow Warbler                 | 276           | 34                        | 1                         | 6                           | 317                |
| <b>Grand Total</b>             | <b>1241</b>   | <b>126</b>                | <b>7</b>                  | <b>34</b>                   | <b>1408</b>        |

1228 net-hours

1 - banded 90 or fewer days ago, at the BBO

114.7 captures/100 net-hours

2 - banded over 90 days ago, at the BBO

3 - caught but not banded (e.g. escaped)

| Species               | Banded     | Foreign  | Repeat    | Return   | Unbanded | Grand Total |
|-----------------------|------------|----------|-----------|----------|----------|-------------|
| Boreal Owl            | 5          |          |           |          |          | 5           |
| Long-eared Owl        | 9          |          |           |          |          | 9           |
| Northern Saw-whet Owl | 271        | 1        | 18        | 1        | 2        | 293         |
| <b>Grand Total</b>    | <b>285</b> | <b>1</b> | <b>18</b> | <b>1</b> | <b>2</b> | <b>307</b>  |

**NSWO Male 1 (Old)** (126 captures)

397.5 playback hours

31.7 captures/100 playback hours

**NSWO Male 2 (New)** (132 captures)

393 playback hours

33.6 captures/100 playback hours

**NSWO Female** (27 captures)

393 playback hours

6.9 captures/100 playback hours

**Long-eared Owl** (2 captures)

334.5 playback hours

0.6 captures/100 playback hours

**Boreal Owl** (20 capture)

234 playback hours

8.5 captures/100 playback hours



The Beaverhill Bird Observatory is a proud member of the Beaver County and Tofield communities. We thank our many supporters and funders that are shown below along with personal donations including in memory of Mary Hughes Weir, John Honsaker, and the Wainwright Wildlife Society. Visit [www.beaverhillbirds.com](http://www.beaverhillbirds.com) for more information.



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