



2010 ANNUAL REPORT

by

Lisa Priestley, Editor

December 2010

Acknowledgements

We thank Katie Calon and Meaghan Bouchard for their hard work and commitment over the 2010 field season. We would also like to thank the Golodrinas crew Justin Proctor, Thera Lombard, and Juan Casillas and Cornell University for working with our Tree Swallows for the summer. We thank the Beaverhill Bird Observatory board of directors: Jim Beck, Christine Boulton, Al DeGroot, Geoff Holroyd, Chuck Priestley, James Sheppard, Bryn Spence, and Margaret Takats. We had many volunteers throughout the season and we thank them for their help (listed in the seasonal reports). Thank you to all the organizations that provided funding for our work in 2010: Alberta Conservation Association, Alberta Gaming and Liquor Commission (Casino funds), Alberta Sport Recreation Parks and Wildlife Foundation, Canada Summer Jobs, Community Spirit Program, Mountain Equipment Coop, Nature Canada (Charles Labatiuk Fund), Shell Environmental Fund, Student Career Placement Program, and TD Friends of the Environment. Donations (cash and in-kind) from various people are appreciated. We also thank all the volunteer owl surveyors, Hardy Pletz and Bob Gehlert for their dedication to our programs. We thank all the attendees to our Steaks and Saw-whets and BIG Birding Breakfast events and Janos Kovacs for providing the wonderful breakfast. Support from Edmonton Nature Club, Nature Alberta and Bird Studies Canada is greatly appreciated.



Volunteer and board member Matt Hanneaman with his son Leyton.

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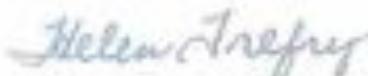
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We, the authorised internal auditors assigned to audit the 2010 Financial Records of the Beaverhill Bird Observatory, have examined the attached sheets (together with receipts and cancelled cheques associated with each debit, receipts issued for donations, monthly bank statements and records of deposits made at the bank); and we find that the records as presented are complete, balance and are in order.

Signature



Nan Hingston (BBO member)



Helen Trefry (BBO member)

Date: February 4 2011

BEAVERHILL BIRD OBSERVATORY SOCIETY

Box 1410
Edmonton, Alberta
T5J 2N5

Balance Sheet

As of 13th Period 20

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| Assets | | |
|--------------------------------|---------------|-------------|
| Current Assets | | |
| Chequing Account | | \$16,715.62 |
| Casino Chequing Account | | \$7,687.78 |
| Casino Investment Account | | \$0.00 |
| US cash | | \$0.00 |
| Investments | | \$10,000.00 |
| Elson Investment Fund | | \$20,000.00 |
| Accounts Receivable | | \$1,200.00 |
| Interest Receivable | | \$0.00 |
| Deposits Paid | | \$0.00 |
| Property & Equipment | | |
| Buildings | \$4,236.32 | |
| Donation Boxes | \$541.00 | |
| Computer | \$2,471.43 | |
| Banding Equipment | \$2,350.00 | |
| General Mis. Equipment | \$2,176.25 | |
| Display Board | \$527.00 | |
| Refrigerator | \$2,000.14 | |
| Solar Panels | \$2,618.15 | |
| Lab Equipment | \$1,122.01 | |
| Total Property & Equipment | | \$18,042.30 |
| Total Assets | | \$73,645.90 |
| Liabilities | | |
| Current Liabilities | | |
| Accounts Payable | \$0.00 | |
| Deposits on account | \$0.00 | |
| Total Current Liabilities | | \$0.00 |
| Payroll Liabilities | | |
| Income Tax Deductions | \$1,739.40 | |
| Income Tax Deductions for Cash | \$1,900.00 | |
| CPP Payable | \$534.66 | |
| CPP Payable Casino Account | \$0.00 | |
| EI Payable | \$248.44 | |
| EI Payable Casino Account | \$0.00 | |
| Workers' Compensation Payable | \$0.00 | |
| Vacation Payable | \$0.00 | |
| Total Payroll Liabilities | | \$4,322.50 |
| exchange | | \$0.00 |
| Total Liabilities | | \$4,322.50 |
| Equity | | |
| Retained Earnings | \$109,512.08 | |
| Current Year Earnings | (\$41,188.68) | |
| Historical Balancing | \$1,000.00 | |
| Total Equity | | \$69,323.40 |
| Total Liability & Equity | | \$73,645.90 |

BEAVERHILL BIRD OBSERVATORY SOCIETY

Box 1410

Edmonton, Alberta

T5J 2N5

Profit & Loss Statement

13th Period 2010

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| | Reported Period | % of Sales | Year to Date | % of YTD Sales |
|--------------------------------|-----------------|------------|--------------------|----------------|
| Income | | | | |
| GRANTS | | | | |
| Charles Labeluk Fund | \$0.00 | NA | \$5,000.00 | 8.4% |
| MEC | \$0.00 | NA | \$1,100.00 ✓ | 1.9% |
| Community Spirit Program of AB | \$0.00 | NA | \$11,164.27 | 18.8% |
| Canadian Govt. - SCPP | \$0.00 | NA | \$5,513.00 | 9.3% |
| TD Friends of the Environment | \$0.00 | NA | \$1,500.00 | 2.5% |
| Bullie Birdathon | \$0.00 | NA | \$2,080.60 ✓ | 3.5% |
| ACA Stewardship Grant #2 | \$0.00 | NA | \$10,200.00 | 17.2% |
| Burrowing Owl Account | \$0.00 | NA | \$9,600.00 | 16.2% |
| Total GRANTS | \$0.00 | NA | \$46,157.87 | 77.8% |
| Memberships | \$0.00 | NA | \$500.00 ✓ | 0.8% |
| TALKS AND PRESENTATIONS | \$0.00 | NA | \$381.80 ✓ | 0.6% |
| Mis. Income | \$0.00 | NA | \$118.20 ✓ | 0.2% |
| Donations | | | | |
| General donation | \$0.00 | NA | \$5,845.30 ✓ | 9.9% |
| Alberta Owl Surveys | \$0.00 | NA | \$1,737.98 ✓ | 2.9% |
| Total Donations | \$0.00 | NA | \$7,583.28 | 12.8% |
| Interest | \$0.00 | NA | \$72.82 ✓ | 0.1% |
| Casino Account Interest | \$0.00 | NA | \$485.17 ✓ | 0.8% |
| GST Refund | \$0.00 | NA | \$282.79 ✓ | 0.5% |
| GST Refund Casino | \$0.00 | NA | \$473.84 ✓ | 0.8% |
| Sales | | | | |
| Porcato Breakfast | \$0.00 | NA | \$285.00 ✓ | 0.5% |
| Steaks and Saw-whets Event | \$0.00 | NA | \$1,778.00 ✓ | 3.0% |
| BBO Conference Workshop | \$0.00 | NA | \$1,160.00 ✓ | 2.0% |
| Total Sales | \$0.00 | NA | \$3,223.00 | 5.5% |
| Total Income | \$0.00 | NA | \$59,256.77 | 100.0% |
| Cost of Sales | | | | |
| Gross Profit | \$0.00 | NA | \$59,256.77 | 100.0% |
| Expenses | | | | |
| Office Expense | | | | |
| Mail Box Rental | \$0.00 | NA | \$183.75 ✗ | 0.3% |
| Postage | \$0.00 | NA | \$37.53 ✗ | 0.1% |
| Printing | \$0.00 | NA | \$200.65 ✗ | 0.3% |
| Reports/Manuals | \$0.00 | NA | \$1,029.97 ✗ | 1.7% |
| Telephone | \$0.00 | NA | \$593.72 ✗ | 1.0% |
| Bank Charges | \$0.00 | NA | \$72.76 ✗ | 0.1% |
| Miscellaneous Expenses | \$0.00 | NA | \$57.25 ✗ | 0.1% |
| Office Expenses | \$0.00 | NA | \$284.10 ✗ | 0.5% |
| Total Office Expense | \$0.00 | NA | \$2,839.73 | 4.8% |
| Supplies | \$0.00 | NA | \$2,252.10 ○ | 3.8% |
| Event Expenses | \$0.00 | NA | \$54.88 ○ | 0.1% |
| Food | \$0.00 | NA | \$235.28 ○ | 0.4% |
| Repairs & Mntce | \$0.00 | NA | \$1,099.10 ○ | 1.9% |
| Bands & Equipment | \$0.00 | NA | \$385.88 ○ | 0.7% |
| Dues & Subscriptions | \$0.00 | NA | \$30.00 ✓ | 0.1% |
| Property Taxes | \$0.00 | NA | \$147.24 ✗ | 0.2% |
| Insurance | \$0.00 | NA | \$693.00 ✗ | 1.1% |
| WCB Expense | \$0.00 | NA | \$200.00 ✗ | 0.3% |
| Accommodations | \$0.00 | NA | \$354.23 ✓ | 0.6% |

BEAVERHILL BIRD OBSERVATORY SOCIETY

Profit & Loss Statement

13th Period 2010

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| | Reported Period | % of Sales | Total to Date | % of TTD Sales |
|---------------------------------|-----------------|------------|----------------------|----------------|
| Mileage | \$0.00 | NA | \$5,071.40 ✓ | 8.6% |
| Travel Expenses | \$0.00 | NA | \$2,134.05 ✓ | 3.6% |
| Payroll | | | | |
| Wages | \$0.00 | NA | \$19,200.00 | 32.4% |
| Contract Work Others | \$0.00 | NA | \$3,675.00 | 6.2% |
| GST Expense on Contracts | \$0.00 | NA | \$47.62 | 0.1% |
| Contract Work Exec. Director | \$0.00 | NA | \$4,552.33 | 7.7% |
| Vacation Pay Expense | \$0.00 | NA | \$1,244.00 | 2.1% |
| Employer Expenses | \$0.00 | NA | \$1,229.08 | 2.1% |
| Steaks & Saw-whets Event | \$0.00 | NA | \$1,013.14 ○ | 1.7% |
| BBO Conference - Workshop Expe | \$0.00 | NA | \$716.85 ○ | 1.2% |
| Owl Projects | \$0.00 | NA | \$10,879.58 ✓ | 18.4% |
| All Noct. Owl Survey Expenses | \$0.00 | NA | \$1,314.98 ✓ | 2.2% |
| Conferences Travel Expenses | \$0.00 | NA | \$300.83 ✓ | 0.5% |
| Casino Expense Accounts | | | | |
| Bank SIC Casino Account | \$0.00 | NA | \$164.11 ~ | 0.3% |
| NSWO Nestbox Monit. Mileage | \$0.00 | NA | \$821.50 ✓ | 1.4% |
| BBO Profile - Web & Newslette | \$0.00 | NA | \$258.93 + | 0.4% |
| Lab Upgrade | \$0.00 | NA | \$1,000.00 ○ | 1.7% |
| Bird Survey Field Tech Course | \$0.00 | NA | \$889.48 | 1.5% |
| Education Alberta Expenses | \$0.00 | NA | \$544.41 | 0.9% |
| GST On Contracts | \$0.00 | NA | \$400.00 | 0.7% |
| Contract Salary Casino Funds | \$0.00 | NA | \$24,000.00 | 40.5% |
| Salary Summer Staff | \$0.00 | NA | \$11,900.00 | 20.1% |
| Employer Expense Casino Account | \$0.00 | NA | \$826.70 | 1.4% |
| Total Expenses | \$0.00 | NA | \$100,445.45 | 169.5% |
| Operating Profit | \$0.00 | NA | (\$41,188.68) | (69.5%) |
| Other Income | | | | |
| Other Expenses | | | | |
| Net Profit / (Loss) | \$0.00 | NA | (\$41,188.68) | (69.5%) |

SEASONAL REPORTS 2010



**Beaverhill Bird Observatory
Spring Report 2010**

by

Meaghan Bouchard

July 2010

Introduction

Yet another spring has come and gone here at the Beaverhill Bird Observatory. The staff at the BBO this year consists of Head Bander Katie Calon, and Meaghan Bouchard as Assistant Bander. Migration monitoring started on May 1st and ran until June 9th, with 13 nets set up around the banding lab. We have had an interesting spring filled with great species both spotted and banded on site, as well as plenty of time spent on raptor banding and trapping.

Songbird Migration Monitoring



Male and female Common Yellowthroats

The season started out a bit slow this year, with low capture numbers for the first 2 weeks of monitoring due to uncooperative weather keeping us from setting up nets. There were a total of 6 days that we were unable to band due to snow, wind and rain, and 7 days with no staff on site throughout the migration monitoring period. There were also a few mornings with late starts due to sub-zero temperatures or frost on the nets,

and early net closures due to wind. Despite these setbacks, total number of net hours was up significantly from previous years (Table 1), at 2016 net hours out of a possible 3120.

Within this time, a total of 333 birds were banded this year out of the 497 that were caught. There were 37 returns (from a previous year), including a Yellow Warbler who was originally banded in 2002, and 86 Repeats (recaptured the same year, Table 2). There were many notable captures including an Eastern Phoebe, a banded Hairy Woodpecker and several Yellow-bellied Sapsuckers. We also had an amazing variety of warblers come through the area, and were lucky enough to capture a Western Palm Warbler, a Magnolia Warbler, a MacGillivray's Warbler as well a Tennessee Warbler. We were also very excited to have banded a Black-Throated Green Warbler, which are uncommon at BBO, and a Canada Warbler, which is listed as a threatened species in Canada.



Canada and Western Palm Warblers

The top 5 species captured (Appendix A) were Least Flycatchers (131), Clay-coloured Sparrows (81), Myrtle Warblers (38), Yellow Warblers (37), and House Wrens (32). These species accounted for 64% of the captured species, which is an increased proportion from the previous 3 years (Appendix A).

Table 1. Ten year trends for bird captures and net hours at the BBO.

| Year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| Birds Captured | 629 | 950 | 754 | 532 | 276 | 242 | 408 | 382 | 500 | 497 |
| Birds Banded | 472 | 740 | 546 | 424 | 196 | 169 | 318 | 288 | 351 | 333 |
| Net Hours | 1756 | 2569 | 2219 | 1809 | 1570 | 1616 | 1813 | 1828 | 1608 | 2016 |
| Capture Rate | 36.83 | 36.98 | 33.98 | 29.41 | 17.48 | 14.98 | 22.84 | 20.9 | 31.09 | 24.65 |
| Species Captured | 39 | 55 | 44 | 38 | 32 | 31 | 44 | 38 | 39 | 38 |

Table 2. Birds caught in mist nets at Beaverhill Bird Observatory Spring 2010

| Species | Banded | Repeat ¹ | Return ² | Foreign ³ | Other ⁴ | Total |
|-------------------------------|------------|---------------------|---------------------|----------------------|--------------------|------------|
| Alder Flycatcher | 4 | 0 | 0 | 0 | 0 | 4 |
| American Goldfinch | 8 | 0 | 0 | 0 | 0 | 8 |
| American Redstart | 5 | 0 | 0 | 0 | 0 | 5 |
| American Robin | 9 | 0 | 0 | 0 | 1 | 10 |
| Baltimore Oriole | 2 | 2 | 2 | 0 | 0 | 6 |
| Black-capped Chickadee | 0 | 6 | 8 | 0 | 0 | 14 |
| Blackpoll Warbler | 3 | 0 | 0 | 0 | 0 | 3 |
| Brown-headed Cowbird | 8 | 5 | 1 | 0 | 4 | 18 |
| Black-throated Green Warbler | 1 | 0 | 0 | 0 | 0 | 1 |
| Canada Warbler | 1 | 0 | 0 | 0 | 0 | 1 |
| Clay-coloured Sparrow | 59 | 15 | 1 | 0 | 6 | 81 |
| Chipping Sparrow | 11 | 0 | 0 | 0 | 0 | 11 |
| Common Yellowthroat | 5 | 0 | 0 | 0 | 0 | 5 |
| Eastern Phoebe | 1 | 0 | 0 | 0 | 0 | 1 |
| Gray Catbird | 2 | 0 | 0 | 0 | 0 | 2 |
| Hairy Woodpecker | 0 | 1 | 0 | 0 | 0 | 1 |
| Hermit Thrush | 6 | 1 | 0 | 0 | 2 | 9 |
| House Wren | 20 | 4 | 3 | 0 | 5 | 32 |
| Least Flycatcher | 72 | 36 | 13 | 0 | 10 | 131 |
| Lincoln's Sparrow | 3 | 0 | 0 | 0 | 1 | 4 |
| MacGillivray's Warbler | 1 | 0 | 0 | 0 | 0 | 1 |
| Magnolia Warbler | 1 | 0 | 0 | 0 | 0 | 1 |
| Myrtle Warbler | 35 | 0 | 0 | 0 | 3 | 38 |
| Northern Waterthrush | 2 | 0 | 0 | 0 | 0 | 2 |
| Orange-crowned Warbler | 2 | 0 | 0 | 0 | 0 | 2 |
| Ovenbird | 1 | 0 | 0 | 0 | 0 | 1 |
| Rose-breasted Grosbeak | 2 | 0 | 0 | 0 | 0 | 2 |
| Song Sparrow | 5 | 0 | 0 | 0 | 2 | 7 |
| Sparrow sp. | 0 | 0 | 0 | 0 | 1 | 1 |
| Swainson's Thrush | 26 | 0 | 0 | 0 | 1 | 27 |
| Unknown Yellow-rumped Warbler | 1 | 0 | 0 | 0 | 0 | 1 |
| Tennessee Warbler | 1 | 0 | 0 | 0 | 0 | 1 |
| Tree Swallow | 0 | 0 | 0 | 1 | 0 | 1 |
| Warbling Vireo | 1 | 1 | 3 | 0 | 0 | 5 |
| Western Palm Warbler | 1 | 0 | 0 | 0 | 0 | 1 |
| White-throated Sparrow | 16 | 0 | 0 | 0 | 2 | 18 |
| Yellow-bellied Sapsucker | 3 | 1 | 0 | 0 | 0 | 4 |
| Yellow Warbler | 15 | 14 | 6 | 0 | 2 | 37 |
| Total | 333 | 86 | 37 | 1 | 40 | 497 |

- 1 Banded recently (within 90 days) at the BBO.
- 2 Banded at the BBO > 90 days prior to recapture (e.g. in a previous year).
- 3 Banded at a location other than the BBO.
- 4 Caught in a mist-net but not banded (e.g. escaped net).

Tree Swallows

The Tree Swallow boxes are being monitored this year by Justin Proctor and Thera Lombardi, who are working for the Golondrinas de Las Americas Project. They will soon be joined by a third member of the crew, Juan Casillas who is coming all the way from Mexico.



Thera taking the dimensions of a Tree Swallow egg

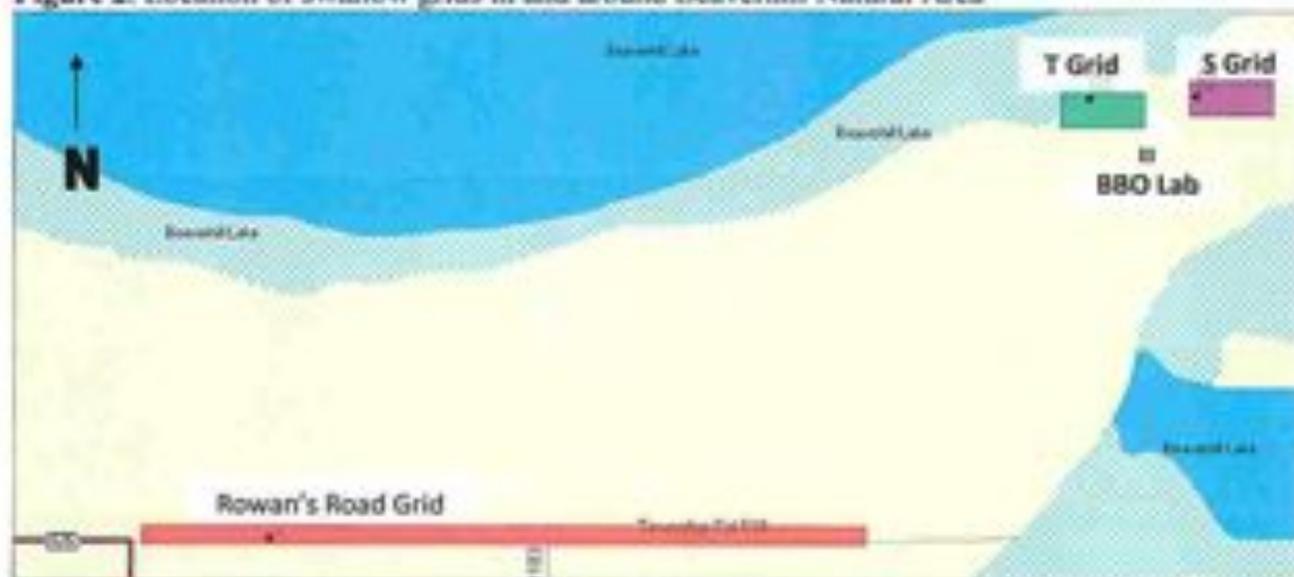
Thera and Justin have been hard at work covering three grids of 50 nest boxes in and around the natural area. As of June 9th, there were 30 Tree Swallow boxes with eggs, along with one House Wren egg, and 6 Mountain Bluebird chicks on the T grid. The S grid, which was set up in 2008 and has lower box occupancy, has only 6 Tree Swallow clutches and 4 Mountain Bluebird chicks. The third grid along Rowan's Route has 21 swallow nests with eggs and 3 bluebird nests.

Up to this point they have been monitoring and scoring nest construction in the boxes, as well as taking various measurements on the eggs as they are

laid. Each egg's size and weight and lay sequence are measured and recorded, as well as the egg's metabolism. This is done by measuring the amount of carbon dioxide the egg produces within a set time in a contained space.

They have also put effort into banding the adult female swallows, as they are easy to catch on the nest when incubating. This is accomplished by taping a flap of clear plastic to the inside of the box, over the hole, which allows the birds to enter but not to leave the box.

Figure 2. Location of swallow grids in and around Beaverhill Natural Area



Other Banding

Unfortunately, we were not able to attempt to catch the Purple Finches at the feeder again this year, though nets put up in the clearing for repair work did provide us with some interesting catches. A Ruby-throated Hummingbird found his way into a net undergoing repairs, and we all enjoyed marvelling at this ridiculously tiny and amazingly iridescent bird, not to mention wonder how one does affix a band to such miniscule legs.

In raptor news, the saga of the Short-eared Owls who have been active over the lakebed has been a prominent storyline through the spring at the lab.

Geoff Holroyd and Helen Trefry were out by Lister Lake on May 1st for the first of many attempts to capture the Short-eared Owls that they had spotted hanging around the area in order to attach a GPS transmitter. Several nights were spent by Katie and Geoff setting up and watching the baited traps, and observing the activities of the 3 owls on Lister Lake. Geoff decided to stay onsite to put in some serious hours searching for nests on the lakebed. Through some teamwork from Justin, Thera and Katie, we were finally rewarded with one nest of 4 and Geoff's efforts paid off with a nest of 7 eggs. Geoff later found a third nest, and set up traps over the nests to try and capture the adult females in order to attach the GPS unit.

The staff at the BBO were also invited along to do some raptor banding in and around Tofield. A big thanks to Al DeGroot and Hardy Pletz for bringing us along to band Great Horned Owl chicks.



Hardy with a Great Horned Owl chick



Least Flycatcher sitting on her nest

It was quite an experience, from watching Al scale trees while avoiding angry adults, to handling the chicks, which gave us a close up view. We visited 6 nests in all and banded 3 of them, for a total of 8 young.

Geoff and Justin also spotted a Least Flycatcher who has set up a nest beside the outhouse, complete with toilet paper in the construction. This has made for an easy nest to monitor and use as a guideline for the development of eggs and chicks in other nests around the BBO.

A Clay-coloured Sparrow nest housing 3 eggs was also found on the way out to the Weir station when the female flushed as we walked by. It is amazing how well these birds can hide a clutch of blue eggs on the ground, with nothing but grass and shrubs for cover.

The nest boxes along Range Road 183 and at Francis Viewpoint have also been productive. A check on May 13 found 6 Mountain Bluebird nests with eggs already laid, and another 4 nests with eggs on the swallow grids. One impressive clutch already had 7 beautiful blue eggs sitting in it!

Other Work

Justin has put in a lot of time towards fixing things up around the lab, including repairing the solar shower and repainting and replacing several of the damaged and missing road signs within the natural area. He ensured that we had a steady supply of cut and split firewood to get us through the crummy weather, so a big thank you for all your help!

Al DeGroot also came to set up the tarp over the balcony again this year, which allows us to enjoy the deck rain or shine!

Minor repairs to the nest boxes were completed in early May in preparation for the arrival of the Tree Swallows. We have also spent time repairing and setting up mist nets and clearing net lanes in preparation for MAPS, which starts June 10.

Interpretation

Katie hosted a group from the Edmonton Nature Club on May 8th. They enjoyed being able to take a close look at the one Myrtle Warbler that was captured while they were on site. Lisa Priestly also presented a talk to the Biology 20 class in Tofield on Monitoring, Research, and Education at the Beaverhill Bird Observatory.



Katie with a group of young enthusiasts at the Big Birding Breakfast

We were lucky to have beautiful weather and a good turnout this year for the Big Birding Breakfast, which took place on June 6. Approximately 30 visitors were able to make it out, and all enjoyed Janos Kovacs' delicious jam and pecan crepes. Thank you to all the members who came out to help set up and keep the morning running smoothly. A relatively quiet day for birds, with 17 caught in total and mostly before the crowds arrived. Thanks to Robin Pimm who camped out the night before and helped with net checks. One couple who arrived early were rewarded with some one on one time with the Least Flycatchers and Clay-coloured Sparrows that were caught on the first few net checks. The pair of American Goldfinches and the Gray Catbird were big hits, it was neat to catch some flashy birds. It was great to see all the kids out for the breakfast as well, full of enthusiasm and thrilled to have the chance at being pecked by a Black-capped Chickadee.

Also thank you to all the visitors who came to spend time in the natural area, it is always nice to have folks out to enjoy the sights and sounds. It was great to see Irene and Onyx, Anita Hanneman and her kids, Rachel and her two sons, Kathy St. Laurent and Alan Marsh, as well as all those who came through without making it into the guest book. Thanks also to Anna Daku and Finn for coming out to help band, and for bringing back some amazing warblers. We hope you will all come and visit again soon!

Acknowledgements

Another big thank you of course goes out to all those who have contributed their time and energy at the BBO, your efforts are much appreciated!

Thank you to Lisa Priestley and Geoff Holroyd for covering banding on staff days off, as well as to Justin Proctor for assisting. And again thank you to Al DeGroot and Hardy Pletz for bringing us on their rounds banding Great Horned Owls, and to Geoff for including us in the saga of the Short-Eared Owl, we had a great time!

Again thanks to those who came out to help set up and keep everything running smoothly for the Big Birding Breakfast, and of course to Janos Kovacs for feeding us all breakfast.

Appendix A. Top 5 Species

| Year | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------------|-----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|----------------------------|----------------------------|
| #1 Captured Species | Least Flycatcher (226) | Least Flycatcher (174) | Myrtle Warbler (162) | Least Flycatcher (88) | Least Flycatcher (89) | Clay-coloured Sparrow (72) | Least Flycatcher (64) | Least Flycatcher (70) | Least Flycatcher (121) |
| #2 Captured Species | Clay-coloured Sparrow (143) | Myrtle Warbler (149) | Chipping Sparrow (59) | Yellow Warbler (47) | Yellow Warbler (32) | Least Flycatcher (70) | Yellow Warbler (37) | Clay-coloured Sparrow (66) | Clay-coloured Sparrow (81) |
| #3 Captured Species | Yellow Warbler (111) | Yellow Warbler (119) | Clay-coloured Sparrow (51) | Clay-coloured Sparrow (27) | Clay-coloured Sparrow (23) | Myrtle Warbler (31) | Brown-headed Cowbird (35) | Myrtle Warbler (35) | Myrtle Warbler (38) |
| #4 Captured Species | Swainson's Thrush (82) | White-throated Sparrow (48) | Least Flycatcher (51) | Swainson's Thrush (20) | Swainson's Thrush (19) | Yellow Warbler (25) | Myrtle Warbler (27) | Swainson's Thrush (25) | Yellow Warbler (37) |
| #5 Captured Species | White-throated Sparrow (60) | Clay-coloured Sparrow (40) | Swainson's Thrush (40) | Myrtle Warbler (19) | House Wren (17) | House Wren (22) | Swainson's Thrush (21) | Yellow Warbler (18) | House Wren (32) |
| % of total captures | 66% | 70% | 66% | 66% | 66% | 53% | 52% | 43% | 64% |

General Permit – GP

RESEARCH PERMIT

District: St. Paul

FEE \$ NIL

PERMITTEE: Justin Proctor of Cornell University

ADDRESS: Cornell University, Ithaca, New York, USA

IS AUTHORIZED TO

Band and collect blood, feather, and insect samples from tree swallows in nest boxes near Beaverhill Lake. Permit extends to David Winkler.

DATE OF ISSUE: July 25, 2011 DATE OF EXPIRY: August 31, 2011

Signature of Permittee



For Minister of Alberta Sustainable Resource Development

IN ACCORDANCE WITH

The attached addendum, the Animal Care Committee Protocol #11-253, and:

- a) Any injured wildlife will be reported to the Area Wildlife Biologist (780-645-6335) or District Enforcement Officer during regular business hours or to the Report a Poacher line (1-800-642-3800) after hours.

****IMPORTANT**

District Office instructions:

Please photocopy this document once it is issued and forward copies to:

Original – Permittee

Copy to – Wildlife Management, Edmonton HQ

Copy to – Licensing & Revenue Services, Edmonton HQ

Copy for – Issuing District

Licence - CN

COLLECTION LICENCE

District: St. Paul

FEE \$ NIL

NAME Justin Proctor of Cornell University

ADDRESS Cornell University, Ithaca, New York, USA

Is authorized to collect the following wildlife Tree swallows from nest boxes for the purpose of banding and collecting blood, feather, and insect samples.

This licence authorizes the use of the following equipment and methods Collection by hand from nest boxes and sampling as per proposed methods.

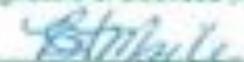
This licence is valid (location) Beaverhill Lake area

EFFECTIVE DATE June 1, 2011 DATE OF EXPIRY August 31, 2011

Collections are to be conducted by Licencee and David Winkler

Date of issue: July 25, 2011

Signature of Licencee (not valid unless signed by Licencee) Licencee must be carried while collecting.


For Minister of Alberta Sustainable Resource Development

Conditions:

1. The licencee must keep the appropriate Fish and Wildlife Officer informed of collection activities as they occur.
2. This licence is not transferable.
3. Persons collecting under the authority of this licence must produce a copy of the licence on the request of a Fish and Wildlife Officer when carrying out collection activities.
4. If any information obtained from the collection of any wildlife under this licence is used in a report or publication of any kind, the licencee shall forward a copy of such publication to the Director of Wildlife.
5. Within 7 days of the expiry of the licence, the licencee shall complete the table below, and any other records required by this licence, and return licence and records to the Director of Wildlife.

| Collection Date | Species | Sex MF | Location | Disposition |
|-----------------|---------|--------|----------|-------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

IMPORTANT

District Office instructions:

Please photocopy this document once it is issued and forward copies to:

Original - Licencee

Copies to: Licensing Services, Edmonton, HQ, Region: Issuing District

**Research Permit and Collection Licence
General Conditions**

Addendum to Research Permit #49354 GP and Collection Licence #48019 CN

1. It is the responsibility of the licensee to contact the appropriate Fish and Wildlife Division District Officer and the appropriate landowner prior to the commencement of any permitted activities.
2. The permit is valid only for research and collection activities in the specific area and for the dates identified on the permit.
3. This permit is not valid on private land or lease land without the written permission of the landowner or lease holder. This permit is not valid in any Provincial Park, Ecological Reserve, Wildland Park, Natural Area or Wilderness Area. If approval is needed in these areas, please contact your local Parks and Protected Areas authority.
4. Permits are not transferable and must include the names (when known) of all authorized project members who must be prepared to show a copy of the permit on the request of a Fish and Wildlife Officer.
5. The permittee is responsible for ensuring that public safety is not endangered by activities associated with the project.
6. The permittee shall be held accountable for damages to resources or property arising directly or indirectly from the project.
7. The issuance of this licence does not exempt the holder from any other Canadian Laws that might otherwise apply.
8. All captured animals must be handled in a humane manner and according to the approvals of the Wildlife Animal Care Committee.
9. Animals captured using immobilization drugs must follow the Fish and Wildlife Drug protocols.
10. A report of the past years' activities is required before permits are renewed.
11. All observations made during your project are to be provided within either:
 - a. a Fish and Wildlife Management Information System 'FWMIS_load.xls' digital file or
 - b. for where USFWS bands are used in the project, a "Band Manager" digital export (see attached instructions titled: Submitting Banding Data to Alberta Sustainable Resource Development). Note: Banding data locations are to be provided as Latitude/Longitude in Degrees-Minutes-Seconds.

This completed file is to be returned to the Fish and Wildlife Division, as part of your annual or final report, upon completion of the project (no later than April 1st, 2012). The 'FWMIS_load.xls' digital file can be accessed at the following web address:

<http://srd.alberta.ca/ManagingPrograms/FishWildlifeManagement/FisheriesWildlifeManagementInformationSystem/Default.aspx> or, by contacting Lonnie Bilyk (GIS Analyst) at (780) 427-8136 or email at Lonnie.Bilyk@gov.ab.ca



Summer Report 2010

Katie Calon

Introduction

The summer staff of 2010 was made up of Katie Calon (Head bander) and Meaghan Bouchard (Assistant bander) who were responsible for carrying out the Monitoring Avian Survivorship and Productivity (MAPS) Program. The MAPS program has been in operation since 1989 and was created by the Institute for Bird Populations with the goal of monitoring the vital rates and population dynamics of North American land birds¹. The three MAPS stations run on the Beaverhill Natural Area are the Beaverhill lab (BLAB), an area east of the weir (WEIR), and another area south of the lab (PARK). At each site there are 10 mist nets, and 9 point count locations. This year monitoring began on June 11th and was carried out until July 31st. During that time period, five 10-day rotations were carried out comprised of one day of constant effort mist-netting, followed by point counts at each respective location.

This summer was filled with a variety of other activities, such as nest searching, nest side banding, assisting with the Golondrinas de las Americas Project, as well as writing updates and conducting general maintenance around the lab. This year there was the added challenge of a Golondrinas staff member who spoke only Spanish, so we all learned a few 'birdy' Spanish words! We also managed to fit in some fun activities like BBQs, Canada Day celebrations, a birthday party, and a trip to Islet Lake to find some water for a day of canoeing.



Loading up the canoe for a day on the water

Mist Netting

Constant effort mist-netting is the main method of data collection for MAPS. Mist nets (12m long, 30mm mesh) were set up at sunrise and monitored for 6 hours each day. Banding only occurred during standard weather conditions, with temperatures between 0°C and 27°C. Wind speed had to be less than 20 km/h, described as leaves and twigs in constant motion (Beaufort scale value of 3).

All 900 hours of banding were successfully completed this summer. In a few rounds we were interrupted by poor weather, but we were able to catch up the lost net hours within the same round. A total of 291 birds of 17 different species were captured in the mist nets. The summary of all species captured is broken down by location in Appendix 1.

PARK

The PARK station (Lat 53 22 34 Long 112 31 45) has been in operation since 1996. A total of 70 individual birds were caught here in 2010, from 9 species through the 300 hours of mist netting, resulting in 23.33 birds/100 net hours. This location consistently has the lowest capture rate of the three stations; however in 2010 it had a reasonably high capture rate as compared

to previous years (Figure 1). See Appendix 1 for the species breakdown of birds caught at this location.

Dates banding was conducted were: June 14th, June 22nd, July 5th, July 7th, July 16th, July 17th, and July 21st. On two separate days (July 5th and July 16th) we were forced to close the nets due to rain, but were able to catch up the net hours within the same round (July 7th and July 17th).

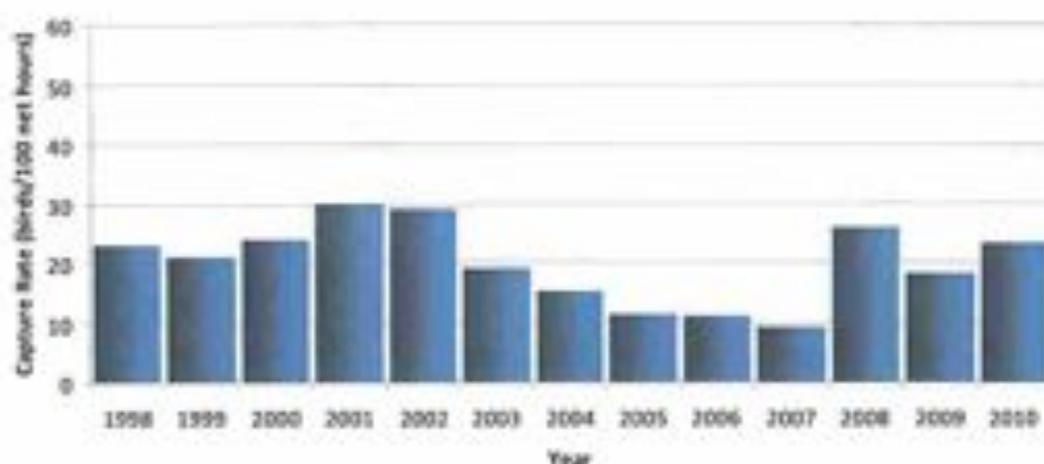


Figure 1. Capture rates from 1998 to 2010 at the PARK MAPS station.

BLAB

The BLAB station (Lat 52 22 50 Long 112 31 39) has been operating since 1989, the very start of the MAPS program. A total of 119 birds were captured during the mist netting at this location from a total of 13 species in 300 net hours. This yielded a capture rate of 39.67 birds/100 net hours. Since 1998 the capture rate at BLAB has fluctuated quite a bit, with the capture rate for 2010 being one of the highest over this time period (Figure 2). See Appendix 1 for the full breakdown of birds caught at this location.

Dates Banding: June 13th, June 21st, June 30th, July 10th, July 20th. We lost no net hours at this station due to poor weather.

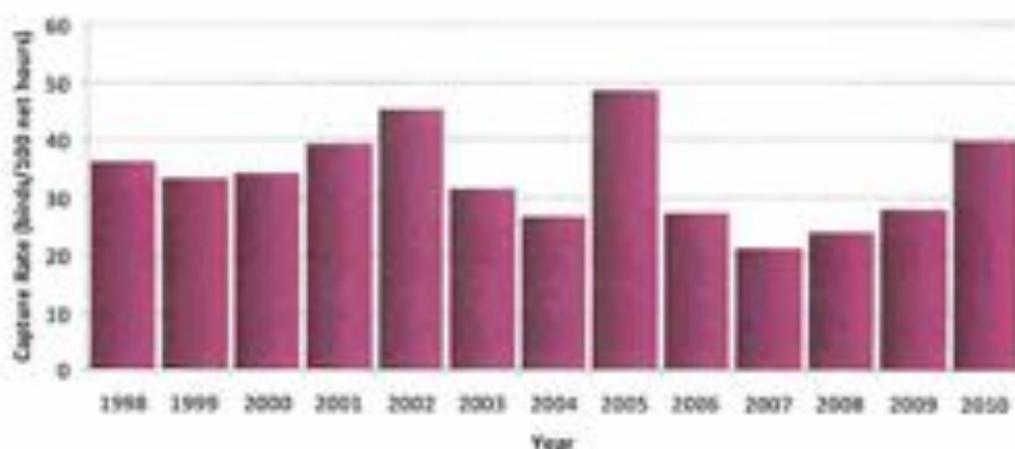


Figure 2. Capture rates from 1998 to 2010 at the BLAB MAPS station.

WEIR

The WEIR station (Lat 53 22 48 Long 112 30 19) has been in operation since 1994. In 2010, a total of 103 birds from 12 species were captured in 300 total net hours, yielding a capture rate of 34.33 birds/100 net hours. The capture rate appears to be on a steady incline from 2007 to 2010 (Figure 3). See Appendix 1 for the species breakdown of birds caught at this location.

Dates of banding were: June 15th, June 23rd, July 6th, July 18th, and July 27th. We lost no net hours at this station due to poor weather.

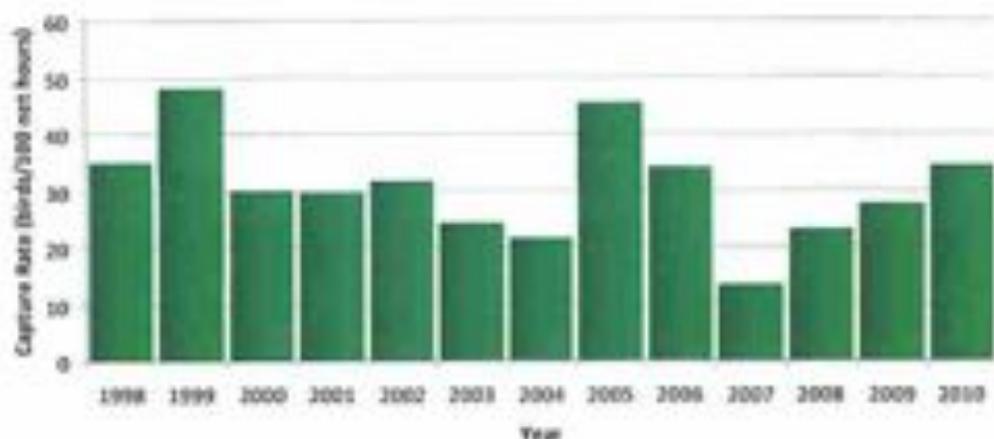


Figure 3. Capture rates from 1998 to 2010 at the WEIR Maps station

All stations

The four most abundant species that were banded during MAPS at all three stations were Least Flycatchers (106, 67.1%), American Robins (11, 6.9%), Clay-coloured Sparrows (9, 5.7%), and Baltimore Orioles, Warbling Vireos, and Yellow Warblers (all species 5, 3.2%). The four most abundant species caught were Least Flycatchers (198, 67.8%), American Robins (17, 5.8%), Warbling Vireos (13, 4.5%), Clay-coloured Sparrows and Brown-headed Cowbirds (11, 3.8%).



I always find it interesting to look through the history of birds that have been recaptured at BBO multiple times, and have included two brief 'life-stories' below;

Bird band #2340-78637

This Least Flycatcher was originally banded on June 19, 2006 out at the WEIR station. It was identified as being in its second year, so was hatched in 2005. Since 2006, this bird has been caught numerous times; 2007 – once, 2008 – twice, 2009 – twice, and 2010 – three times. Every capture has occurred at the WEIR station, in either June or July. This is likely an example of a bird that has a preferred breeding territory, and returns to it year after year. Maybe we'll see it again next year?

Bird band #1861-68151

This Veery was originally banded on July 14th, 2005 by Lisa Priestley at the BLAB station. It was identified as being in its second year, so it was hatched in 2004. She had a brood patch, so we can assume she bred on-site somewhere in that year. Since the year it was banded, this bird was captured again twice, once in 2008, and once in 2010. Where was she in between? Who knows, maybe she was in the Natural Area and we simply didn't catch her, or maybe she tried out different sites and decided to come back this year. She had a brood patch once again in 2010, so we can assume she was breeding on site.

Point counts

Point counts were also conducted at nine locations within each of the MAPS stations. Point counts were done in the same 10 day rotation as the mist netting, but on separate days than the mist netting. At each point count observers listened for 10 minute periods and recorded all birds heard within that time, noting the approximate distance of the bird from the observer, the direction of the bird, as well as in which time interval the bird was heard singing. Interval 1 = 1-3 minutes, interval 2 = 3-5 minutes, and interval 3 = 5-10 minutes. The list of species heard during point counts can be found in Table 1. Dates point counts were conducted are as follows:

Park June 17th, June 24th, July 7th, July 15th, July 26th,
Blob June 10th, June 28th, July 7th, July 17th, July 28th,
Weir June 16th, June 24th, July 8th, July 15th, July 26th,

Table 1. Number of detections for each species at the BBO MAPS stations (combining of all visits listed above).

| Species | BLAB | PARK | WEIR | Grand Total |
|--------------------------|------|------|------|-------------|
| Alder Flycatcher | 0 | 0 | 2 | 2 |
| American Crow | 2 | 38 | 3 | 43 |
| American Goldfinch | 37 | 15 | 14 | 66 |
| American Robin | 30 | 7 | 26 | 43 |
| Baltimore Oriole | 14 | 5 | 19 | 38 |
| Black-billed Magpie | 0 | 0 | 1 | 1 |
| Black-capped Chickadee | 22 | 14 | 5 | 41 |
| Brown-headed Cowbird | 30 | 21 | 37 | 88 |
| Canada Goose | 0 | 1 | 0 | 1 |
| Clay-coloured Sparrow | 15 | 11 | 6 | 32 |
| Cedar Waxwing | 2 | 4 | 5 | 11 |
| Common Raven | 24 | 13 | 14 | 51 |
| Common Yellowthroat | 0 | 0 | 1 | 1 |
| Downy Woodpecker | 0 | 4 | 2 | 6 |
| Hairy Woodpecker | 0 | 1 | 6 | 7 |
| Hermit Thrush | 10 | 12 | 1 | 23 |
| House Wren | 20 | 10 | 31 | 61 |
| Least Flycatcher | 174 | 175 | 141 | 490 |
| Mourning Dove | 0 | 1 | 4 | 5 |
| Myrtle Warbler | 0 | 0 | 1 | 1 |
| Northern Flicker | 0 | 1 | 1 | 2 |
| Ovenbird | 1 | 0 | 2 | 3 |
| Rose-breasted Grosbeak | 2 | 2 | 0 | 4 |
| Ring-billed Gull | 0 | 1 | 0 | 1 |
| Red-breasted Nuthatch | 1 | 0 | 0 | 1 |
| Red-eyed Vireo | 0 | 1 | 0 | 1 |
| Red-tailed Hawk | 1 | 0 | 1 | 2 |
| Ruffed Grouse | 0 | 1 | 2 | 3 |
| Red-winged Blackbird | 9 | 9 | 15 | 33 |
| Song Sparrow | 1 | 0 | 6 | 7 |
| Tree Swallow | 19 | 5 | 5 | 29 |
| Unknown Duck | 1 | 0 | 5 | 6 |
| Warbling Vireo | 34 | 26 | 51 | 111 |
| Western Meadowlark | 1 | 0 | 0 | 1 |
| Yellow-bellied Sapsucker | 0 | 2 | 1 | 3 |
| Yellow Warbler | 41 | 28 | 32 | 101 |
| Grand Total | 471 | 408 | 440 | 1319 |

Golondrinas de las Americas

This year was another active one out on the Tree Swallow grids for the Golondrinas de las Americas staff, made up of Justin, Thera, and Juan. The 147 swallow boxes were steadily monitored between June 10th and July 21st. Chicks were weighed regularly, had blood samples taken for DNA analysis, were subjected to cooling experiments, and finally banded prior to fledging. A significant amount of effort was put into capturing all the adults nesting on the

grids, and while not 100% successful, a very large proportion of the adults were captured, had blood samples taken, and were banded.



The Golo crew, doing what they do best, checking boxes!

New to this year's protocol was the use of perch counters combined with feeding observations. Perch counters were mounted on the swallow box entrances and recorded each time a swallow perched at the entrance. The preliminary data looked very interesting, with adult tree swallows visiting the box steadily during the peak feeding period!

One Tree Swallow, a male from the S grid, box 8 proved to be a challenging individual to capture. He was significantly more aggressive and territorial than any of the other birds on the grids, and would

dive and swoop endlessly at anyone that was near the box, however he would never ENTER the box to be captured and banded! Finally the Golondrinas staff were able to catch him, by setting up a mist net near the box and having Juan stand near it as 'bait'. When they caught him, he turned out to be banded, #1661-11190, a bird that I banded back in 2006 as an After Second Year male! He has not been caught since that year at any of our swallow grids.

All in all the Tree Swallows had a very comparable year to 2009, except that a higher percentage of the nests were successful, and more adult birds were banded and recaptured. A summary of nesting statistics for the Tree Swallows in 2009 and 2010 is presented in Table 2. In addition to the Tree Swallow grids, a nest of 5 Tree Swallow chicks were successfully raised in 'The Cabin', a nest box found in the trees near the lab.

Table 2. Comparison of breeding statistics for the Tree Swallows monitored during the Golondrinas de las Americas project in 2009 and 2010.

| Grid | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 |
|--------------------------------------|------|------|------|------|------|------|-------|-------|
| | R | R | T | T | S | S | Total | Total |
| Available boxes | 48 | 48 | 49 | 49 | 50 | 50 | 147 | 147 |
| TRES nest attempts | 23 | 26 | 39 | 26 | 5 | 12 | 67 | 64 |
| Boxes with successful TRES nests (%) | 39.6 | 41.7 | 67.3 | 53.1 | 10.0 | 18.0 | 38.8 | 46.7 |
| Failed TRES nests | 4 | 6 | 6 | 0 | 0 | 3 | 10 | 9 |
| Rate of TRES nest failure (%) | 17.4 | 12.5 | 15.4 | 0 | 0 | 25 | 14.9 | 14.1 |
| Avg TRES young/nest | 4.2 | 4.8 | 5.7 | 4.5 | 4.2 | 4.4 | 5.1 | 4.6 |
| Highest clutch size | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 |
| Lowest clutch size | 1 | 2 | 3 | 1 | 3 | 2 | 1 | 1 |
| MOBL nests | 1 | 0 | 1 | 2 | 3 | 1 | 4 | 8 |
| HOWK nests | 0 | 1 | 2 | 7 | 0 | 0 | 2 | 8 |
| Adult TRES banded | 27 | 43 | 64 | 59 | 7 | 18 | 98 | 120 |
| Adult recapture rate (%) | 14.8 | 41.8 | 39.1 | 54.2 | 14.3 | 27.8 | 30.4 | 37.1 |
| Total TRES fledglings | 80 | 96 | 127 | 118 | 21 | 40 | 288 | 254 |

Nest-side Banding

Natural Area

Nest-side banding within the Beaverhill Lake Natural Area was quite active this year, with a total of 22 nests that were monitored throughout the summer (Table 3). Thanks to the Golondrinas staff, for discovering some of these nests and helping us to monitor them! One memorable nest from this summer was that of an American Robin on the edge of the tree line near the T-grid. When Meaghan and I went to band the young in that nest, we were strongly encouraged to leave, by the most assertive mother Robin (make that passerine!) I have ever encountered. She was swooping and diving at us the entire time and even connected with Meaghan's hand as she replaced the chicks. We got the message and got out of there quickly, but not before the young were sporting bands.



Table 3. Nests monitored within the Beaverhill Lake Natural Area in 2010 and their outcomes.

| Species | Young Banded | Outcome(1) |
|-----------------------|--------------|------------|
| American Robin | - | Failed |
| American Robin | 2 | Successful |
| American Robin | - | Unknown |
| Clay-coloured Sparrow | - | Successful |
| Clay-coloured Sparrow | - | Failed |
| Clay-coloured Sparrow | - | Failed |
| Clay-coloured Sparrow | - | Failed |
| Clay-coloured Sparrow | 2 | Successful |
| Clay-coloured Sparrow | - | Successful |
| Clay-coloured Sparrow | 2 | Successful |
| Clay-coloured Sparrow | - | Unknown |
| House Wren | 8 | Successful |
| House Wren | 7 | Successful |
| Least Flycatcher | 1 | Successful |
| Least Flycatcher | 4 | Successful |
| Least Flycatcher | 3 | Successful |
| Northern Harrier | - | Failed |
| Northern Harrier | 4 | Successful |
| Short-eared Owl | - | Failed |
| Short-eared Owl | - | Failed |
| Short-eared Owl | - | Failed |
| Yellow Warbler | - | Failed |

(1) Outcomes are defined as follows; Successful = chicks were capable of fledging on the last visit to the nest; Failed = at the egg stage, or chicks were present and incapable of fledging and insufficient time had elapsed to allow them to fledge between visits; Unknown = chicks were incapable of fledging, but sufficient time had elapsed to allow them to fledge between visits.

Francis Point/Elson Bluebird Trail/Rowan's Route

We certainly were not limited to the confines of the Natural Area this year in our nest monitoring, and struck out in the surrounding area to find additional nests. As usual, we monitored the nest boxes along Elson Olorenshaw's old Bluebird trail, including those a mile from the natural area, and those found at Francis Viewpoint. In addition to the nest boxes, we had a few natural nests that the Golondrinas staff found along Rowan's Route as they checked the boxes of the R-grid.

We had a few interesting observations while monitoring nests in these areas, for one, we found an Eastern Bluebird nest! There are few records of this species breeding in Alberta, and we were able to monitor a nest of four young from the egg stage up until they fledged. Of course we had no idea they were Eastern Bluebird eggs or young... they kind of all look the same at that stage, but when we trapped the female on the nest we were quite surprised! We had numerous sightings of the male and female, but despite our efforts we were unable to capture the male, he was extremely wary whenever we were within 100 meters of the nest box. Also of interest a House Wren once again used a Barn Swallow nest at the Francis Viewpoint blind. They are resourceful little birds known to nest in various places. It is a lot harder to hold onto fledgling House Wrens when they are in a cup nest as opposed to a nest box, and some managed to fledge before we could band them.



Adult female Eastern Bluebird

Table 4. Nests monitored outside the boundary of the Beaverhill Lake Natural Area in 2010 and their outcomes.

| Species | Young Banded | Outcome(1) |
|---------------------|--------------|--------------------|
| Barn Swallow | 4 | Successful |
| Black-billed Magpie | 7 | Successful (very!) |
| Eastern Bluebird | 4 | Successful |
| House Wren | 2, 3 escaped | Successful |
| House Wren | - | Unknown |
| House Wren | 4 | Successful |
| Mountain Bluebird | 5 | Successful |
| Mountain Bluebird | 5 | Successful |
| Mountain Bluebird | 5 | Successful |
| Mountain Bluebird | 6 | Successful |
| Mountain Bluebird | 6 | Successful |
| Mountain Bluebird | 4 | Successful |
| Mountain Bluebird | 6 | Successful |
| Savannah Sparrow | 4 | Successful |
| Savannah Sparrow | 4 | Successful |
| Savannah Sparrow | - | Failed |
| Tree Swallow | 5 | Successful |
| Tree Swallow | 4 | Successful |
| Tree Swallow | 6 | Successful |
| Tree Swallow | 5 | Successful |
| Tree Swallow | 5 | Successful |
| Tree Swallow | 6 | Successful |
| Tree Swallow | - | Unknown |
| Tree Swallow | - | Unknown |
| Tree Swallow | - | Failed |
| Tree Swallow | - | Failed |
| Tree Swallow | 5, 1 escaped | Successful |
| Tree Swallow | 2 | Successful |
| Tree Swallow | 5 | Successful |
| Tree Swallow | 6 | Successful |
| Vesper Sparrow | 4 | Successful |

(1) Outcomes are defined as follows; Successful = chicks were capable of fledging on the last visit to the nest, Failed = at the egg stage, or chicks were present and incapable of fledging and insufficient time had elapsed to allow them to fledge between visits; Unknown = chicks were incapable of fledging, but sufficient time had elapsed to allow them to fledge between visits

Other Areas

The staff were also able to take part in the banding of one nest of Northern Saw-whet Owls in the Ministik Lake Natural Area. Many thanks to Lisa for taking us out to participate!

Other Wildlife

Other animals seen throughout the summer within the natural area include Moose, White-tailed Deer, Coyotes, Snowshoe hares, Porcupines, Voles, and Northern Flying-Squirrels. The

Porcupines in particular have made their presence known this year, with an adult and young individual hanging around most evenings throughout the summer enjoying the seed from the bird feeders, and munching on the lettuce that Thera had planted.

Butterflies detected in the Natural Area throughout the summer include; Red-disked Alpine, Canada Tiger Swallowtail, Fritillary sp., Painted Lady, Mourning Cloak, White Admiral, and Green Comma.

Volunteers/Visitors

A number of visitors joined us out at the lab, we were pleased to have the following people stop by for a visit;

Ashley Thorsen

Milo and Scott Stauter

Patrick, Kim, Sara, and Nora (Golondrinas Saskatchewan crew)

As well as many whose names we did not catch, or that we knew of only by the presence of their vehicles in the parking lot. We hope they all enjoyed their visit, the birds, and will think to come back again soon!



Summary of species captured during the MAPS program for each banding location from June 11, to July 31, 2010.

Appendix 1.

| Species | Beckel | | | Ripost | | | Rthun | | | Other | | | Grand Total | | | |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|-----------|-------------|------------|------------|------------|
| | FWK | IS/AS | WBR | FWK | IS/AS | WBR | FWK | IS/AS | WBR | FWK | IS/AS | WBR | FWK | IS/AS | WBR | TOTAL |
| American Goldfinch | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| American Robin | 0 | 6 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 0 | 11 | 6 | 17 |
| Baltimore Oriole | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 6 | 7 |
| Black-capped Chickadee | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Brown-headed Cowbird | 0 | 1 | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 5 | 3 | 2 | 4 | 5 | 15 |
| Chipping Sparrow | 4 | 2 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 3 | 3 | 11 |
| Downy Woodpecker | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 3 |
| Hermit Thrush | 1 | 1 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | 4 | 0 | 7 |
| House Wren | 0 | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 4 | 7 |
| Least Flycatcher | 26 | 20 | 38 | 9 | 21 | 11 | 6 | 12 | 7 | 2 | 7 | 7 | 53 | 82 | 63 | 298 |
| White Warbler | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ruffed Grouse | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Sharp-shinned Hawk | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Scofield's Thrush | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Wren | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Warbling Vireo | 0 | 0 | 5 | 0 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | 2 | 1 | 1 | 11 | 13 |
| Yellow Warbler | 3 | 1 | 1 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 5 | 1 | 9 |
| Yellow-billed Flycatcher | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| TOTAL | 41 | 46 | 64 | 12 | 24 | 14 | 20 | 17 | 9 | 3 | 17 | 14 | 70 | 129 | 111 | 290 |



Fall Report 2010

by

Lisa Priestley

November 2010

Abstract

Songbird migration monitoring was conducted from August 1 through October 10, 2010. There were 880 birds captured (27.6 birds/100 net hours). Northern Saw-whet Owl nets were set from September 10 through November 17 on 57 days. We caught 304 Saw-whet Owls (capture rate of 28.5 owls/100 net hours) and four Long-eared Owls. Our satellite Saw-whet Owl stations had 71 owls (Pletz Park) and 105 owls (Gehlert's Grove). The Steaks and Saw-whets event was a huge success again with over 100 people coming out to the lab to observe Saw-whet Owl banding. There were also a variety of visitors observing the songbird and Saw-whet Owl banding through the fall.



Photo of Lisa and Todd Mahan holding a Saw-whet Owl (by Katie Calton).

All photos by Lisa Priestley unless otherwise noted.

Songbird Fall Migration Monitoring

Fall migration at Beaverhill Bird Observatory in 2010 was low compared to the previous 10 years. Although we had a slight increase in capture rate from 2009, only 880 birds were captured, a capture rate of 27.6 birds/100 net hours (Table 1, Figure 1). A total of 3189.5 net hours were run, 56.8% of the total 5616 net hours that were possible. Most netting time missed was due to poor weather (rain and wind) in September.

Table 1. 2010 fall songbird banding results from Beaverhill compared to previous ten years.

| Year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------------------|--------|---------|---------|--------|---------|--------|--------|--------|--------|--------|
| Birds Captured | 2095 | 1734 | 1315 | 975 | 1256 | 1969 | 1079 | 892 | 875 | 880 |
| Birds Banded | 1758 | 1464 | 1093 | 818 | 1089 | 1525 | 952 | 723 | 718 | 708 |
| Net Hours | 3678.5 | 4173.75 | 3818.25 | 3228.5 | 2787.25 | 3476.0 | 3534.0 | 3399.5 | 3670.5 | 3189.5 |
| Capture rate (birds/100N) | 56.9 | 41.2 | 34.4 | 30.2 | 45.1 | 56.6 | 30.5 | 26.2 | 23.8 | 27.6 |
| Species Captured | 56 | 62 | 57 | 60 | 59 | 63 | 52* | 58* | 51 | 60* |

* includes Ruffed Grouse caught in net but not banded

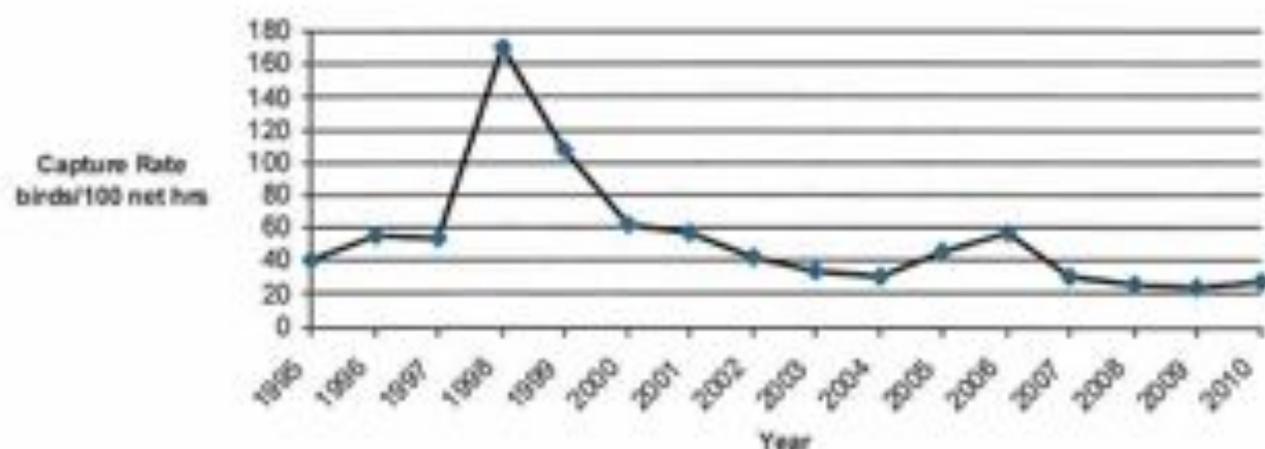


Figure 1. A comparison of fall capture rates (songbirds/100 net hours) between 1995 and 2010.

Top five species representing 54.9% of the captures were: Least Flycatcher (165), Myrtle Warbler (97), Black-capped Chickadee (96), American Tree Sparrow (75), and Clay-colored Sparrow (50). Unusual species that were captured this fall were a Black-throated Blue Warbler, a Nashville Warbler, Ruby-throated Hummingbirds, Sharp-shinned Hawk, and a Broad-winged Hawk.

The nets were set on a three other days later in October (outside the normal migration season) and four American Tree Sparrows, six Black-capped Chickadees, and one White-breasted Nuthatch were captured. Despite the long fall season, it appears most birds had migrated through earlier in the season.

Table 2. Birds caught in mist nets at Beaverhill Bird Observatory fall 2010.

| Species | Banded | Recapture | Encounter | Other | Total |
|------------------------------|--------|-----------|-----------|-------|-------|
| Alder Flycatcher | 6 | 0 | 0 | 0 | 6 |
| American Goldfinch | 5 | 0 | 0 | 0 | 5 |
| American Redstart | 35 | 0 | 0 | 3 | 38 |
| American Robin | 2 | 0 | 0 | 0 | 2 |
| American Tree Sparrow | 59 | 9 | 0 | 7 | 75 |
| Black-and-White Warbler | 2 | 0 | 0 | 0 | 2 |
| Black-capped Chickadee | 36 | 56 | 0 | 4 | 96 |
| Blue-headed Vireo | 1 | 0 | 0 | 0 | 1 |
| Blue Jay | 1 | 0 | 0 | 0 | 1 |
| Blackpoll Warbler | 12 | 0 | 0 | 0 | 12 |
| Brown Creeper | 1 | 0 | 0 | 0 | 1 |
| Black-throated Blue Warbler | 1 | 0 | 0 | 0 | 1 |
| Black-throated Green Warbler | 2 | 0 | 0 | 0 | 2 |
| Broad-winged Hawk | 1 | 0 | 0 | 0 | 1 |
| Canada Warbler | 1 | 0 | 0 | 0 | 1 |
| Clay-colored Sparrow | 36 | 8 | 0 | 6 | 50 |
| Chipping Sparrow | 1 | 0 | 0 | 0 | 1 |
| Common Yellowthroat | 1 | 0 | 0 | 0 | 1 |
| Downy Woodpecker | 2 | 2 | 0 | 0 | 4 |
| Eastern Phoebe | 2 | 0 | 0 | 0 | 2 |
| Fox Sparrow | 1 | 0 | 0 | 0 | 1 |
| Golden-crowned Kinglet | 2 | 0 | 0 | 0 | 2 |
| Gray-cheeked Thrush | 3 | 0 | 0 | 0 | 3 |
| Hairy Woodpecker | 1 | 2 | 0 | 0 | 3 |
| Hermit Thrush | 6 | 2 | 0 | 0 | 8 |
| House Wren | 24 | 9 | 0 | 2 | 35 |
| Least Flycatcher | 142 | 18 | 0 | 5 | 165 |
| Lincoln's Sparrow | 4 | 0 | 0 | 0 | 4 |
| Magnolia Warbler | 10 | 0 | 0 | 1 | 11 |
| Mourning Warbler | 1 | 0 | 0 | 0 | 1 |
| Myrtle Warbler | 92 | 0 | 0 | 5 | 97 |
| Nashville Warbler | 1 | 0 | 0 | 0 | 1 |
| Northern Flicker | 0 | 0 | 0 | 1 | 1 |
| Northern Waterthrush | 2 | 0 | 0 | 1 | 3 |
| Orange-crowned Warbler | 31 | 0 | 0 | 2 | 33 |
| Ovenbird | 14 | 0 | 0 | 0 | 14 |
| Rose-breasted Grosbeak | 3 | 0 | 0 | 1 | 4 |
| Red-breasted Nuthatch | 8 | 0 | 0 | 0 | 8 |
| Ruby-crowned Kinglet | 9 | 0 | 0 | 1 | 10 |
| Ruby-throated Hummingbird | 0 | 0 | 0 | 2 | 2 |
| Red-eyed Vireo | 1 | 0 | 0 | 0 | 1 |
| Ruffed Grouse | 0 | 0 | 0 | 2 | 2 |
| Savannah Sparrow | 1 | 0 | 0 | 0 | 1 |

| | | | | | |
|---------------------------|------------|------------|----------|-----------|------------|
| Slate-colored Junco | 26 | 6 | 0 | 1 | 33 |
| Song Sparrow | 1 | 0 | 0 | 0 | 1 |
| Sharp-shinned Hawk | 1 | 0 | 0 | 0 | 1 |
| Swainson's Thrush | 12 | 0 | 0 | 0 | 12 |
| Tennessee Warbler | 29 | 2 | 0 | 2 | 33 |
| Veery | 1 | 0 | 0 | 0 | 1 |
| Warbling Vireo | 10 | 1 | 0 | 0 | 11 |
| White-breasted Nuthatch | 2 | 2 | 0 | 0 | 4 |
| White-crowned Sparrow | 6 | 1 | 0 | 0 | 7 |
| Western Tanager | 1 | 0 | 0 | 0 | 1 |
| Wilson's Warbler | 11 | 0 | 0 | 1 | 12 |
| Western Palm Warbler | 2 | 0 | 0 | 0 | 2 |
| White-throated Sparrow | 9 | 0 | 0 | 2 | 11 |
| Yellow-bellied Flycatcher | 2 | 0 | 0 | 0 | 2 |
| Yellow-bellied Sapsucker | 1 | 0 | 0 | 0 | 1 |
| Yellow-shafted Flicker | 2 | 0 | 0 | 0 | 2 |
| Yellow Warbler | 29 | 4 | 0 | 1 | 34 |
| Total | 708 | 122 | 0 | 50 | 880 |

¹ Repeat indicates it was captured with the last 90 days at the bird observatory

² Return indicated it was captured over 90 days before at the bird observatory

³ Other Captures include escaped birds, released without banding

Saw-whet Owl Migration

Beaverhill Bird Observatory

Northern Saw-whet Owl fall migration monitoring began on September 10 and was completed on November 17. A total of 57 nights were covered amounting to 1067.00 net hours. We caught 304 Saw-whet owls (capture rate of 28.5 owls/100 net hours) (Table 3, Figure 2). We had 298 unbanded Saw-whets, four repeats (owls caught in the same season, and two foreign encounters. One foreign encounter was an owl banded last fall at Gehlert's Grove, and we have no information on the other banded bird. Four Long-eared Owls were also captured (Sept. 11, 23, 27, and Oct. 16), and two Short-eared Owls were observed on a few occasions flying around the lab.

Table 3. Number of Northern Saw-whet Owls captured at Beaverhill Lake 2002-2010 (Sept 9- Nov 14).

| Year | Number of Nights | Number of Net Hours | Number of Owls Captured | Number of Owls/ 100 Net Hours |
|------|------------------|---------------------|-------------------------|-------------------------------|
| 2002 | 55 | 953.00 | 142 | 14.9 |
| 2003 | 48 | 753.00 | 150 | 19.9 |
| 2004 | 59 | 996.00 | 299 | 30.0 |
| 2005 | 37 | 600.00 | 135 | 22.5 |
| 2006 | 42 | 551.50 | 149 | 27.0 |
| 2007 | 50 | 675.00 | 184 | 27.3 |
| 2008 | 47 | 669.50 | 131 | 19.6 |
| 2009 | 48 | 806.50 | 127 | 15.8 |
| 2010 | 57 | 1067.00 | 304 | 28.5 |

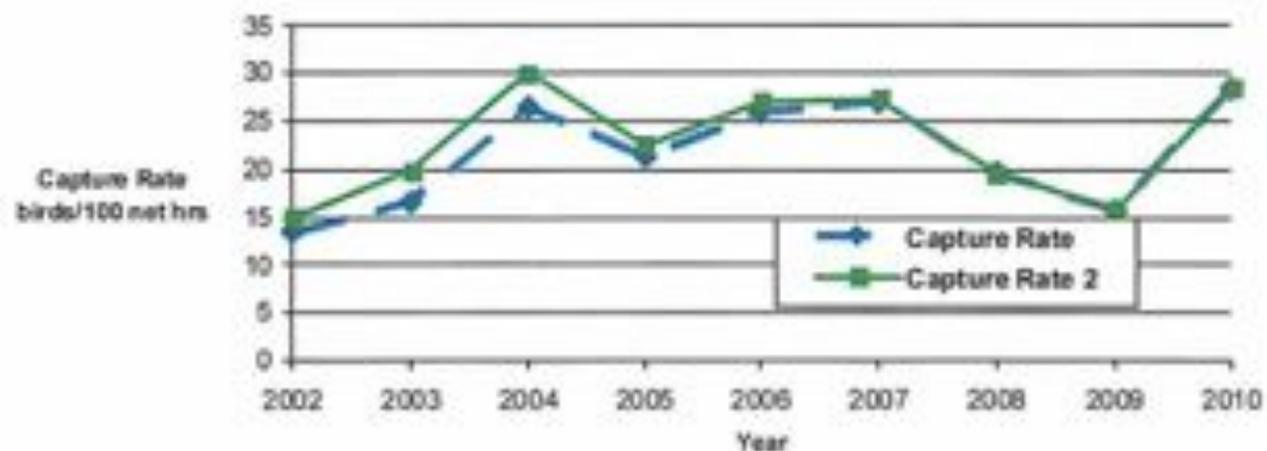


Figure 2. A comparison of capture rates (Saw-whets/100 net hours) between 2002 and 2010: capture rate (all captures), capture rate 2 (September 9 to November 14 only).

Other species of animals that were observed include the Northern Flying Squirrels and a large Porcupine that came to the lab each night in search of bird seed under the feeder. The only problems we had with the Porcupine was it trying to eat the bird feeder and the dogs got a little too close and had a few quills in their snouts as a warning.

Pletz Park

Hardy Pletz spent 17 nights (239 net hours) between September 22 and November 10 trapping for Saw-whets at his acreage Pletz Park, south of Millet, and caught 72 Saw-whet Owls (30.1 owls/100 net hour). Almost one third of the owls he captured were adults.

Gehlert's Grove

Bob Gehlert ran his second year of Saw-whet monitoring at Gehlert's Grove near Lindbrook (west of Tofield). Bob banded on 37 nights between September 14 and November 8 for 510.5 net hours and caught 105 Saw-whet Owls (capture rate of 20.6 owls/100 net hours).

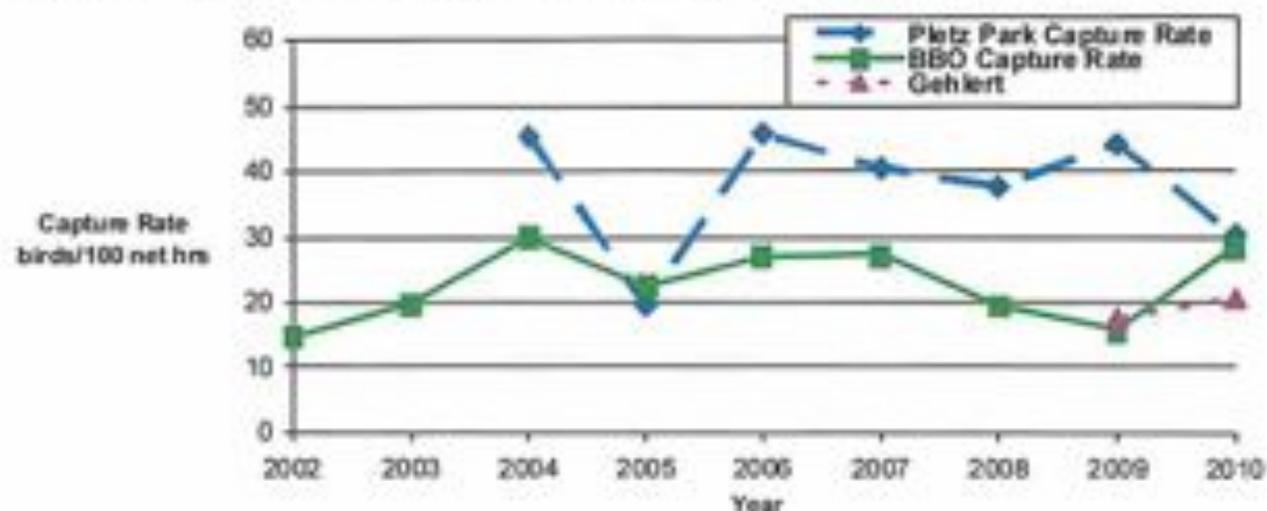


Figure 3. Comparison of Saw-whet Owl capture rates of Pletz Park, BBO, and Gehlert's Grove.

Interpretation

There were a number of visitors to the lab during songbird netting. Six groups came on different days for songbirds (including one group from Calgary, a bander from Romania, and another who had banded in United Kingdom, Iona Island Scotland, and Sweden, and two British people). We had a very young bander (Micah) wanna-be come with his mom Anna Daku (one of our staff from a few years ago). Our Saw-whet Owl banders also had no shortage of company throughout the season, and we had informal visitors on 21 of the nights!



On site organized tours were popular this fall. The Smoky Lake Junior Forest Wardens (8 adults and 14 kids) came out in mid-September for songbirds. Our local home schooling group (three adults and six kids) came out in late September for songbirds and Saw-whets. We had a group from the University of Alberta Chapter of the Wildlife Society come out for Saw-whets on October 16 and the Wildrose Outdoor Club from Camrose also came out to view the Saw-whet banding.

We celebrated another successful Steaks and Saw-whets event. This year the event was held October 1 and 2, 2010. Over 50 people attending on each night of the event, and we had excellent weather and lots of Saw-whets. There were eight owls caught on Friday and nine owls on Saturday. Every person that attended the event saw at least one owl or more.



First Saw-whet Owl captured for Steaks and Saw-whets 2010 (photo by Clark Priestley)

Natural Area Work

This fall, our goal was to improve access to the Natural Area and do some repairs on the bird observatory lab. We contracted Rick Hanneman to smooth the road across the field to the main parking lot. We plan to spend the winter looking for funding to gravel the road in the spring next year. Chuck Priestley also rented a mower and cleaned up the walking trails and parking lots. Al DeGroot coordinated with volunteers to replace the roof of the lab. After 23 years, the shingles and some of the studs needed to be replaced. We are also looking for donations and grants to redo the kitchen in the lab.

Publications and Presentations

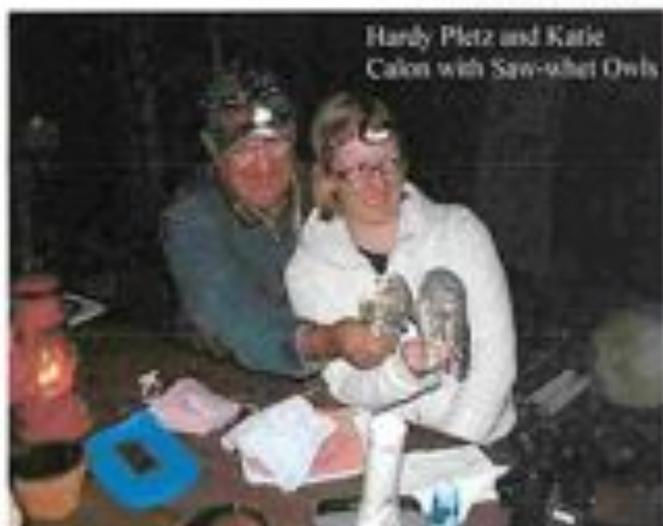
On August 10th Lisa presented a talk on owls for the Greenspace Program in Camrose. We set up a display for the Don't Hibernate event in Tofield. Lisa and Geoff attended the Raptor Research Conference in Fort Collins Colorado. Lisa presented a talk on the Phenology of Raptors in Alberta (based on nest cards) and a poster on updating the Nocturnal Owl Guidelines booklet. Geoff and Helen presented a poster on the Clarion Burrowing Owl. We also attended an event hosted by Nature Canada, and spoke about the program BBO is involved with and how the Charles Labatiuk Endowment Fund is helping our organization.

We are also pleased to announce that our joint paper on Saw-whet Owl Band Encounters has been accepted for publication in the *Journal of Raptor Research* (December issue). This paper discussed band encounters from Alberta and Saskatchewan stations and is authored by Lisa Priestley, Chuck Priestley, Doug Collister, Dan Zazelenchuk, and Matt Hanneman.

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Beaverhill Bird Observatory photos of fall 2010



Hardy Pletz and Katie Calton with Saw-whet Owls



Meaghan Bouchard with Swainson's Thrush

Steaks and Saw-whets-volunteer Keegan



New lab roof



Poster presented at RRF conference (above)
Wildrose Club from Carrose (left)