



2007 ANNUAL REPORT

by

Lisa Priestley, Editor

December, 2007

Acknowledgements

We thank Allicia Kelly and Anna Daku Pimm for their hard work and commitment over the 2007 field season. We thank the Beaverhill Bird Observatory board of directors: Jim Beck, Christine Boulton, Al DeGroot, Matt Hanneman, 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 2008: 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), Canada Summer Jobs, 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, and Hardy Pletz and 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.



The 2007 bird observatory summer staff Anna Daku and Allicia Kelly.

Table of Contents

2007 Audited Financial Report

Beaverhill Bird Observatory Spring Report 2007 – Allicia Kelly

Beaverhill Bird Observatory Summer Report 2007- Anna Daku

Beaverhill Bird Observatory Spring Report 2007 – Lisa Priestley

2007 Lab Updates

2007 Willet Newsletters

Other Publications 2007



**Beaverhill Bird Observatory
Spring Report 2007**

by

Anna Daku

June 2007

Songbird Migration Monitoring

Beaverhill Bird Observatory Spring Migration Monitoring, as part of the Canadian Migration Monitoring Network, occurred from May 1 to June 10, 2007. Forty-four species were captured at the Beaverhill Bird Observatory (BBO), which is slightly higher than previous years with similar net hours (Table 1). Surprisingly, the number of songbirds captured per 100 net hours (NH) during spring migration increased for the first time since 1998 (Table 2, Figure 1). There were 408 birds caught in the mist-nets and we banded 318 of these (Table 1).

The top five species caught in the mist nets cumulatively represent 54.9% of total captures and were (numbers): Clay-coloured Sparrow (72), Least Flycatcher (70), Myrtle Warbler (35), Yellow Warbler (25), and House Wren (22) (Table 2). The top five species are comparable to Spring Migration Monitoring in 2006, with the exception that only two Myrtle Warblers were banded last spring. Uncommon species (i.e. less than 20 individuals banded in the last six years) banded include Brown Creeper, Grey Catbird, Blue Jay, Swamp Sparrow, Yellow-bellied Flycatcher, and Hairy Woodpecker. A male Ruby-throated Hummingbird was also caught in the nets, but not banded because the BBO does not carry a permit to band hummingbirds. The capture of three Tree Swallows in mist nets was very unusual; we band many of these birds in the artificial nest boxes but usually swallows are agile enough to avoid the nets.

Nets were set for 1812.85 NH out of a possible 3198 NH. Poor weather conditions (rain and/or wind) prevented banding on 5 days and caused the nets to be closed early or opened late on 10 other days. Nets were not set on an additional 6 days due to days off for staff. These factors account for a large percentage of missed net hours this season.

A daily census supplements mist netting in order to account for species present in the Natural Area that are not caught in the nets. Sedge Wrens, Bay-breasted Warblers, Tennessee Warblers, and LeConte Sparrows were counted during censuses. Vesper Sparrows, Nelson's Sharp-tailed Sparrows and Marsh Wrens were observed in the Natural Area, but none of these species were caught.



Carefully extracting a female Rose-breasted Grosbeak¹



Magnolia Warbler²



A common catch: Clay-coloured Sparrow



Not so common: Brown Creeper⁴



Mountain Bluebird shows off the Natural Area⁵

Table 1. Spring Migration Monitoring 2007 results compared to the previous six years at the BBO.

Year	2001	2002	2003	2004	2005	2006	2007
Birds Captured	629	950	754	532	276	242	408
Birds Banded	472	740	546	424	196	169	318
Net Hours	1755.50	2568.75	2218.75	1809.00	1569.50	1615.25	1812.85
Capture rate (birds/100NH)	35.83	36.98	33.98	29.41	17.46	14.98	22.84
Species Captured	39	55	44	38	32	31	44



Hairy Woodpecker⁶



Banding a Common Yellowthroat⁷



Saw-whet Owl nestling⁸

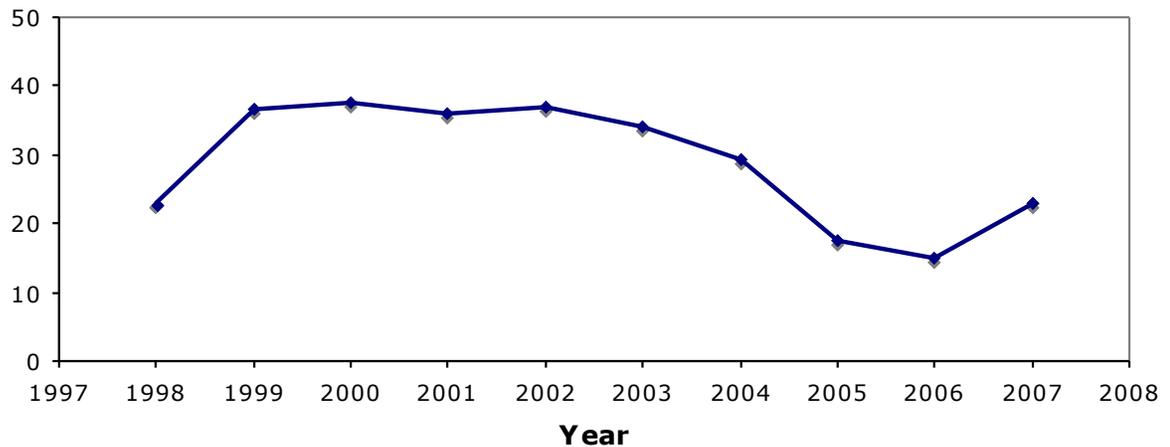


Figure 1. A comparison of capture rates (birds caught per 100 net hours) between 1998 and 2007 during Spring Migration Monitoring at the BBO.

Table 2. Birds caught in mist nets at Beaverhill Bird Observatory May 1 to June 10, 2007.

Species	Banded	Repeat¹	Return²	Foreign³	Other⁴	Total
Alder Flycatcher	5	0	0	0	0	5
American Goldfinch	4	0	0	0	0	4
American Redstart	5	0	0	0	0	5
American Robin	9	0	2	0	2	13
Baltimore Oriole	1	2	0	0	0	3
Black-and-White Warbler	1	0	0	0	0	1
Black-capped Chickadee	5	6	1	0	2	14
Brown-headed Cowbird	12	3	2	0	2	19
Blue-headed Vireo	1	0	0	0	0	1
Blue Jay	1	0	0	0	0	1
Blackpoll Warbler	1	0	0	0	0	1
Brown Creeper	1	0	0	0	0	1
Canada Warbler	2	0	0	0	0	2
Clay-colored Sparrow	60	10	0	0	2	72
Chipping Sparrow	6	0	0	0	1	7
Common Yellowthroat	3	0	0	0	1	4
Gray Catbird	1	0	0	0	0	1
Hairy Woodpecker	1	0	0	0	0	1
Hermit Thrush	4	0	1	0	1	6
House Wren	10	6	2	0	4	22
Least Flycatcher	57	7	4	0	2	70
Lincoln's Sparrow	6	0	0	0	1	7
Magnolia Warbler	2	0	0	0	0	2
Mourning Warbler	1	0	0	0	0	1
Myrtle Warbler	34	0	0	0	1	35
Orange-crowned Warbler	5	0	0	0	1	6
Ovenbird	4	0	0	0	0	4
Rose-breasted Grosbeak	1	0	0	0	0	1
Ruby-crowned Kinglet	6	0	0	0	0	6
Ruby-throated Hummingbird	0	0	0	0	1	1
Red-eyed Vireo	4	0	0	0	0	4
Savannah Sparrow	4	0	0	0	0	4
Slate-colored Junco	1	0	0	0	0	1
Song Sparrow	4	5	3	0	2	14
Swamp Sparrow	1	0	0	0	0	1
Swainson's Thrush	18	0	0	0	0	18
Tree Swallow	3	0	0	0	0	3
Traill's Flycatcher	3	0	1	0	0	4
Warbling Vireo	3	0	0	0	0	3
White-crowned Sparrow	2	0	0	0	0	2
White-throated Sparrow	10	0	0	0	0	10
Yellow-bellied Flycatcher	1	0	0	0	0	1
Yellow-bellied Sapsucker	2	0	0	0	0	2
Yellow Warbler	13	6	5	0	1	25
Total	318	45	21	0	24	408

Net Hours: 1812.85 NH

Capture Rate: 22.84 birds/ 100 NH

- 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

We spent seven days between May 1 and June 10 at the Swallow Grid north of the lab, banding birds and checking the progress of nests and eggs. The boxes are exclusively occupied by Tree Swallows this year, and as of June 10 only five out of 48 boxes did not contain a nest or eggs. We banded 25 adults and recaptured an additional 13 birds that were already banded, with only three of these being repeat captures of birds we banded this year. We first visited the swallow grid on May 7 and nests were already being constructed. The first eggs hatched around June 8. By June 12, the boxes were filled with young at all stages of development: eggs that have just been laid, young just hatched, and young with pin feathers.



Adult female Tree Swallow⁹

Nest-side Banding

We spent three days checking nests within artificial nest boxes outside the natural area (i.e. Francis Point and surrounding area), banding birds when we could catch them. By June 10 there were numerous Tree Swallow nests, six Mountain Bluebird nests and one House Wren nest in these boxes. We cleaned out nests from house mice that had taken up residence in several of the boxes in early May and it is nice to see that both Tree Swallows and Mountain Bluebirds have taken over the empty boxes. We were able to band three adults and ten nestling bluebirds, as well as a few adult Tree Swallows.

Within the natural area, we found numerous natural nests: three Clay-coloured Sparrow, two American Robin, two Mallard (in wooded areas), one Least Flycatcher, and two unknown within old magpie nests, both of which were predated in May. The nest box attached to the sign post contains a family of now-hatched Tree Swallows, and all four boxes around the lab are occupied by House Wrens which have begun laying their pretty pink eggs. One of the nesting adult House Wrens flew into the lab one day and we were able to catch it before it found its way out the door. It had already been banded in a previous year.

We were extremely fortunate to accompany Al DeGroot on numerous Great Horned Owl banding excursions. We visited a total of six nests and banded 15 young between May 1 and June 10. I was also able to tag along with Chuck Priestley while checking Saw-whet Owl boxes, and they caught and banded one adult female and her six nestlings.



Anna with a Mountain Bluebird nestling¹⁰



Allicia with young Great Horned Owls¹¹

Other Work

There are always things to do around the Natural Area in order to maintain and keep the place running. This spring we saw new solar panels installed on both the lab and one of the bunkhouses by Al DeGroot, which help to run the fantastic new BBO laptop computer. A group of volunteers installed posts around the visitor parking lot to discourage the use of all-terrain vehicles in the Natural Area and they sure look great.

There is no end to clearing trails and net lanes as heavy winds and rain can pull down once-stable trees and branches. We also cleaned up the raptor traps that have not been used for many years, as was evidenced by the well-established trees that were growing right through the wire and had to be wrestled out! We began digging a new BBO throne (a.k.a. outhouse) since we thought that the old one was filling up fast. We quickly realized that was not the case; rather, an unusually high water table was the cause of the encroaching level. Our four-foot deep hole became a lake quickly!



Aspen tree growing through a raptor trap¹²

The nest boxes along Rowan's Route and Francis Point had fallen into disrepair, so we spent a few afternoons re-attaching them to their posts, fixing new lids or replacing boxes with new ones. As mentioned, swallows and bluebirds now occupy many of these re-furbished homes.

Interpretation

Big Birding Breakfast

We had many interested and keen birders visit us for this event on June 2, as evidenced by the arrival of half a dozen visitors at or before 5 am. Janos Kovacs cooked up delicious crepes for over 25 people, and many purchased BBO memberships. It was a hot and mosquito-filled day but that did not hinder us from catching 19 birds, including a Red-eyed Vireo. Several participants joined us at the swallow grid in the afternoon to band some adult Tree Swallows and record the progress of the nests.



Our lucky catch of the day: Red-eyed Vireo¹³



Banding at the swallow grid¹⁶

Bird Studies Canada Baillie Birdathon

The Baillie Birdathon is an opportunity for birders of all levels of expertise to raise awareness of Bird Studies Canada and to raise money for all types of bird-related programs, including those run by Canada's banding stations. Every year the banders at the BBO participate, and this year we were able to add 88 species to our list in a 24-hour period. We explored areas near Beaverhill Lake and travelled as far as Wagner Natural Area (west of Edmonton) and Elk Island National Park. Although we missed observing many shorebird species, we saw or heard numerous grassland and woodland birds, including Western Meadowlark, Horned Lark, Cape May Warbler, and nearly all of Alberta's ducks. It was a challenging and enjoyable experience and I recommend it to birders throughout Alberta!

Acknowledgements

We always appreciate visitors, and we had many this spring. Brent Daku, Tim Van Dam, and Ron and Leslie Morey all came out for a couple days each and assisted in many activities, including the capture of adult birds at the swallow grid. 24 additional visitors either popped in or watched some banding in progress.

The BBO relies heavily on the time and effort of dedicated volunteers. This year numerous people helped out. Jim and Barb Beck, Christine Boulton, Al DeGroot, Dave Ealey, Ron Redmond, Chuck Priestley, James, Paxton, and Keegan Sheppard, Josef and Margaret Takats, and Sarah Trefry all came out for the work bee to improve the visitor parking lot. James Sheppard built many beautiful new nest boxes and lids that were badly needed for the swallow grid. Al DeGroot spent a lot of time installing solar panels and ferrying the fridge in and out of the lab to be repaired.

During banding, Chuck Priestley came to be the licensed bander for a day and Richard Krikun came on one of his days off from the Lesser Slave Lake Bird Observatory to visit and help us out. Other banders who came to cover our days off (number of days) are Lisa Priestley (3) and Matt Hanneman (1). Big thanks to all of you!

Finally, thank you to Allicia, whose patience, encouragement and sense of humour make this job (unbelievably) even more fantastic.



Lisa and Todd Mahon and Anna check out a bird near the lab¹⁵



2007 BBO staff: Anna Daku and Allicia Kelly¹⁶



Fall Report 2007

by

Lisa Priestley

November 2007

Abstract

Songbird migration monitoring was conducted from August 1 through October 9, 2007. There were 1079 birds captured (30.5 birds/100 net hours). Saw-whet owl nets were set from September 12 through November 14 on 49 days. We caught 183 saw-whet owls (capture rate of 27.1 owls/100 net hours). We participated in a variety of interpretive events in Edmonton and attended the Canadian Migration Monitoring Network Meeting in Slave Lake. 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.



Long-eared Owl perched on the Long-eared Owl Lane sign.

Songbird Fall Migration Monitoring

Fall migration at Beaverhill Bird Observatory in 2007 was low compared to previous years. After two years of increasing capture rates the number of birds captured dropped to 1079. The capture rate was 30.5 birds/100 net hours, the second lowest rate since 1999 (Table 1, Figure 1). A total of 3534.00 net hours were run, 64.7% of the total 5460 net hours that were possible. Eight full days were missed due to poor weather (mostly wind) and 7 days were missed for staff days off.

Table 1. 2007 fall songbird banding results compared to previous five years.

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
Birds Captured	2745	1740	2095	1734	1315	975	1256	1969	1079
Birds Banded	2172	1433	1758	1464	1093	818	1089	1525	952
Net Hours	2533.5	2843.25	3678.5	4173.75	3818.25	3228.5	2787.25	3476.00	3534.00
Capture rate (birds/100NH)	108.3	61.2	56.9	41.2	34.4	30.2	45.1	56.6	30.5
Species Captured	58	55	56	62	57	60	59	63	52*

* includes a Ruffed Grouse, caught in net but not banded

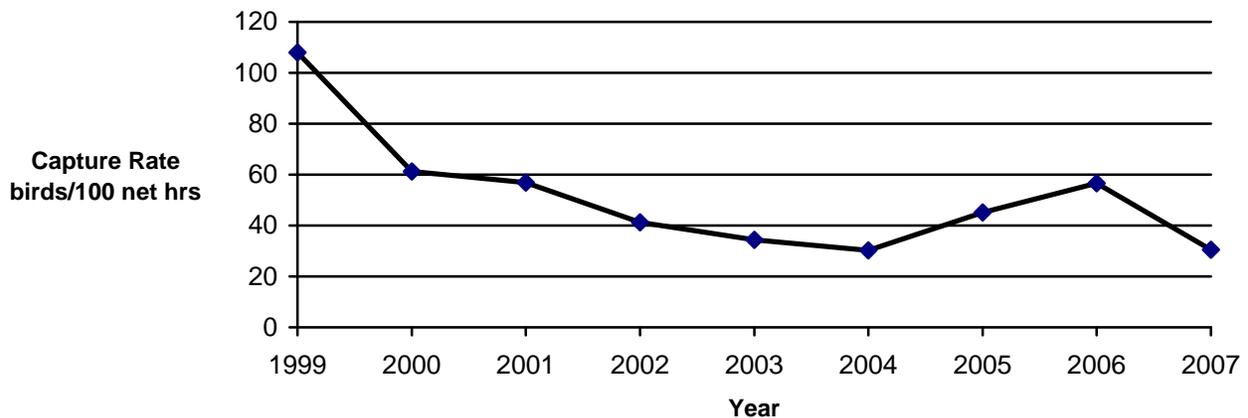


Figure 1. A comparison of capture rates (songbirds/100 net hours) between 1999 and 2007.

Top five species representing 67.6% of the captures were: Myrtle Warbler (423), Least Flycatcher (101), Black-capped Chickadee (89), Yellow Warbler (73), and Slate-colored Junco (43). Unusual species captured in the fall of 2007 include: a Northern Saw-whet Owl, two Gray Catbirds, a Varied Thrush, a Black-billed Magpie, and White-breasted Nuthatches. The species diversity was quite low this year, 52 compared to the between 57 and 63 species captured in other years. Notable absences were Bay-breasted, Cape May, and Western Palm Warbler, and low numbers of many of the other warbler species. There were 20 birds captured on the final day of banding, which may indicate some of the late sparrows were missed.



Table 2. Birds caught in mist nets at Beaverhill Bird Observatory fall 2007.

Species	Banded	Repeat ¹	Other ²	Total
Alder Flycatcher	11	0		11
American Goldfinch	3	1		4
American Redstart	16	0		16
American Robin	0	0	1	1
American Tree Sparrow	40	2		42
Black-and-White Warbler	3	0	1	4
Black-billed Magpie	1	0	3	4
Black-capped Chickadee	39	43	7	89
Blackpoll Warbler	4	0		4
Black-throated Green Warbler	1	0		1
Brown Creeper	2	0		2
Canada Warbler	2	0		2
Clay-colored Sparrow	1	0		1
Connecticut Warbler	1	0		1
Cooper's Hawk	0	0	1	1
Downy Woodpecker	8	11		19
Eastern Phoebe	1	0		1
Fox Sparrow	1	2		3
Gambel's White-crowned Sparrow	6	1		7
Golden-crowned Kinglet	1	0		1
Gray Catbird	2	0		2
Hairy Woodpecker	1	1		2
Hermit Thrush	6	3		9
House Wren	1	0		1
Least Flycatcher	92	6	3	101
Lincoln's Sparrow	4	0		4
Magnolia Warbler	10	0		10
Myrtle Warbler	413	9	1	423
Northern Saw-whet Owl	1	0		1
Northern Waterthrush	7	0		7
Orange-crowned Warbler	34	0		34
Ovenbird	20	0	1	21
Philadelphia Vireo	3	0		3
Purple Finch	1	0		1
Red-breasted Nuthatch	6	0		6
Red-eyed Vireo	3	0		3
Rose-breasted Grosbeak	2	0		2
Ruby-crowned Kinglet	2	0	2	4
Ruffed Grouse	0	0	1	1
Slate-colored Junco	42	1		43
Song Sparrow	3	0		3
Swainson's Thrush	17	2	6	25
Tennessee Warbler	35	3	1	39
Traill's Flycatcher	1	0		1
Varied Thrush	1	0		1
Warbling Vireo	18	3		21
White-breasted Nuthatch	2	1		3
White-throated Sparrow	11	0	2	13
Wilson's Warbler	3	0		3
Yellow Warbler	66	5	2	73
Yellow-bellied Sapsucker	3	1		4
Yellow-shafted Flicker	1	0		1
Total	952	95	31	1079

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

² Other Captures include escaped birds, released without banding, and mortality (2 birds).

Raptor Traps

The raptor traps were not run in 2007 due to no raptor banding permitted staff being on site. This program is also being re-evaluated to look at what kinds of information we are collecting from it.

Saw-whet Owl Migration

Beaverhill Bird Observatory

Northern Saw-whet Owl fall migration monitoring began on September 12 and was completed on November 14. A total of 49 days were covered amounting to 675.50 net hours. We caught 183 saw-whet owls (capture rate of 27.1 owls/100 net hours), the second highest capture rate since we started in 2002 (Table 3, Figure 2). Feathers were collected for isotopes and sexing. No other species of owls were captured, however, a Long-eared Owl was observed perching on the Long-eared Owl sign one night, and the resident male Great Horned Owl was heard many evenings.



Table 3. Number of Northern Saw-whet Owls captured at Beaverhill Lake 2002-2007 (Sept 1- Nov 14).

Year	Number of Nights	Number of Net Hours	Number of Owls Captured	Number of Owls/ 100 Net Hours
2002	54	887.00	141	15.9
2003	52	791.00	149	18.8
2004	55	900.00	291	32.3
2005	39	632.00	135	21.4
2006	37	575.50	149	26.0
2007	49	675.50	183	27.1
Total	--	--	1048	--

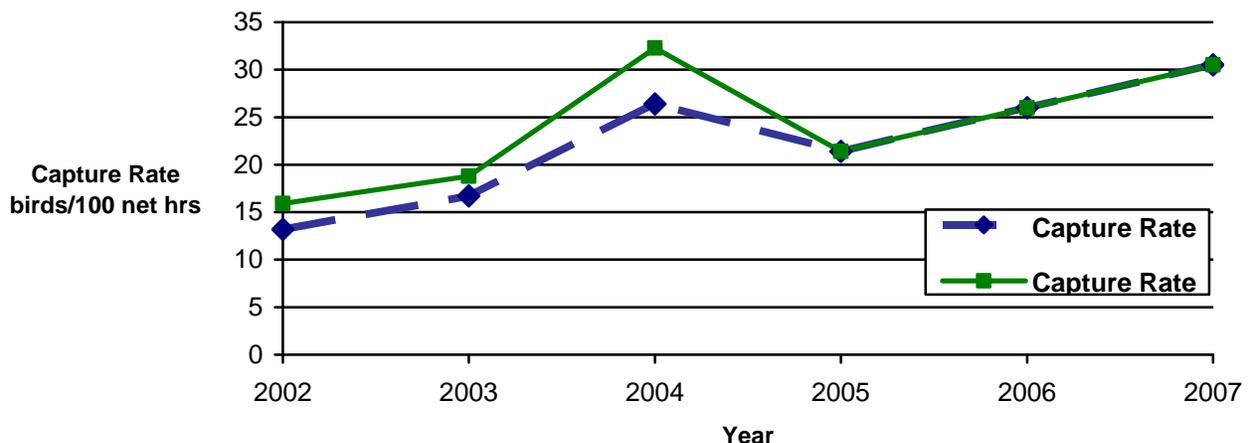


Figure 2. A comparison of capture rates (saw-whets/100 net hours) between 2002 and 2006: capture rate (all captures), capture rate 2 (September 1 to November 14 only).

Pletz Park

Hardy Pletz spent 17 nights trapping for saw-whets at his acreage, south of Millet, and caught 64 saw-whet owls (40.5/100 net hour). This was low compared to the 87.9 owls/100 nets hours in 2006, high compared to 19.7 owls/100 net hours in 2005, and slightly lower compared to 45.5 owls/100 net hours from 2004. One owl was a re-encounter from a nestbox on site (Figure 3).

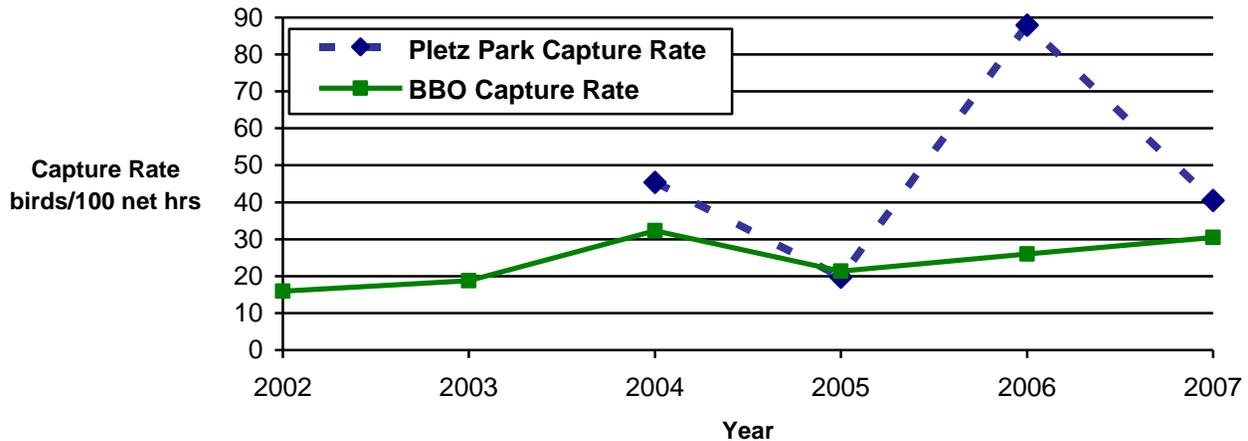


Figure 3. A comparison of saw-whet capture rates of Pletz Park and Beaverhill Bird Observatory.

Interpretation

We participated in a free public event at the John Janzen Nature Center. Mist nets were set up to show the public how we catch and band birds and a display board outlined our various projects. On site tours were popular this fall. For songbirds we had 9 people from the Edmonton Nature Club and Red Deer River Naturalists, 20 people on another day from the Edmonton Nature Club, and two families of home schoolers. In the evenings we had 25 people from the University of Alberta Student Chapter of the Wildlife Society and two families of home schoolers. There were also 29 casual visitors to the Natural Area observing songbird and owl banding throughout the fall 2007 season.

Of course, the one of the big highlights of the fall interpretation events was the annual Steaks and Saw-whets barbeque. There were 42 and 54 visitors that came to the lab on a Friday and Saturday in late September. We were fortunate to catch owls on both nights for the visitors to see (photos below). The first night was plagued with wind, however we managed to catch one owl later in the night, when most people had left. The second night was colder, but without the wind, six owls were captured to the delight of 13 die hard people. We hope you will be able to make the event next year, tentative dates are September 26 and 27, remember to reserve early as we book up quickly.



One presentation was made at Northern Alberta Institute of Technology for their conference. The focus topic of the presentation was Beaverhill Bird Observatory, Volunteer and Employment Opportunities. We also attended the Canadian Migration Monitoring Network Meeting at the Boreal Centre for Bird Conservation in Slave Lake. This was a good opportunity to meet people from other bird observatories from across Canada. Fifteen stations were represented, and we discussed issues ranging from funding and bander training issues to trend analysis and isotope studies.

Acknowledgements

Funding and in-kind support from the following agencies is greatly appreciated:

Alberta Conservation Association
Alberta Sport, Recreation, Parks, and Wildlife Foundation
Alberta Sustainable Resource Development
Environment Canada, Canadian Wildlife Service
MEC Environmental Fund
Nature Canada
Shell Environmental Fund



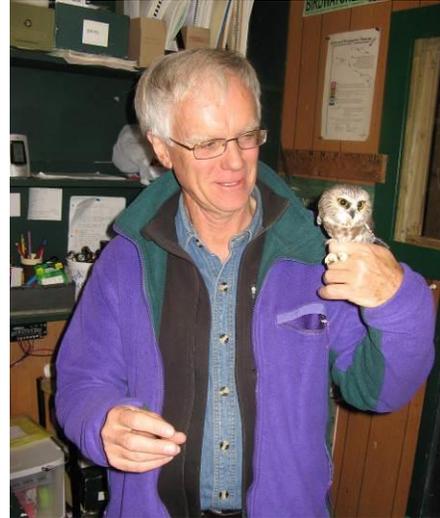
Our work here at Beaverhill Bird Observatory would not be possible without the wonderful staff and volunteers that spend time checking nets, banding birds, and keeping data. First we need to thank Jonathan Martin-DeMoor for conducting the songbird migration monitoring this fall. There were some very keen volunteers this fall at the bird observatory. Following are the volunteers that helped with songbird banding at the lab (# of days): Jim and Barb Beck (5), Katie Calon (formerly Cameron) (1), Erin Cameron (1), Anna Daku (2), Jessica DeMoor (1), Ross Dickson (1), Janos Kovacs (1), Dan Farr, Laurie Hunt and family (1), Cory Olsen (4), Tim VanDam (2). Volunteers that helped with Saw-whet Owl monitoring include: Gerry and Robyn Beyersbergen (2), Katie Calon (3), Isaac Calon (1), Geoff Holroyd (2), Richard Krikun (1), Blaine McGowan (2), Sarah McLean (1), Alisa Metro (1), Sandra Opdenkamp (1), Angella Powell (1), Chuck Priestley (5), Bryn Spence (2), Juanita Spence (1), and Helen Trefry (1). Thanks to Steaks and Saw-whets volunteers Jim and Barb Beck, Katie Cameron, Anna and Brent Daku, Tiarella Hanna, Geoff Holroyd, Hardy Pletz, Chuck Priestley, Margaret and Josef Takats, Brett Scheffers, James and Keegan Sheppard, Bryn Spence, and Sarah Trefry. Also thanks to Gill Priestley and Helen Trefry for providing exceptional babysitting services for my little ones so I could participate in the event. Sam Priestley helped loading and unloading dishes. Finally thanks to Bryn Spence for volunteering his time at the John Janzen Nature Center.



APPENDIX – Photos of fall migration work.



Steaks and saw-whets 2007



Volunteer Geoff Holroyd



Canadian Migration Monitoring Network Meeting 2007

Visitors get to hold an owl for the first time (below)



