



Beaverhill Bird Observatory

Spring 2006 Report

by

Alicia Kelly

Songbird Migration Monitoring

Spring Migration Monitoring occurred from May 1 to June 10, 2006. Thirty-one species were captured, which is comparable to previous years with similar net hours (Table 1). However, the number of songbirds captured at the Beaverhill Bird Observatory (BBO) during spring migration continues to decline (Table 2, Figure 1). In 1678.25 net hours 243 birds were caught in the mist nets, with 168 banded (Table 2). The top five species in the mist nets (representing 65.8% of the total birds) were Least Flycatcher, Yellow Warbler, Clay-coloured Sparrow, Swainson's Thrush and House Wren (Table 2). Only two Myrtle Warblers were banded this spring, although Myrtle Warblers have been one of the top five species captured in each of the five previous years. Two uncommon species were banded: Grey Catbird and Grey-cheeked Thrush.

Nets were set for 1678.25 net hours (NH) out of a possible 3198 NH. Poor weather conditions (snow, slush, rain, wind, and heat) prevented banding on 8 days, and nets were closed early on other days when the wind measured 3 or above on the Beaufort scale or rain started. Nets were not set on an additional 5 days due to days off for staff and 3 days due to no licensed bander on site. These factors account for the 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 which are not caught in the nets. A Purple Finch and Olive-sided Flycatcher were counted during censuses. Vesper Sparrows, Common Yellowthroats and Marsh Wrens are observed in the Natural Area, but we do not set mist nets in the habitats used by these songbirds.

Table 1. 2006 spring songbird banding results compared to previous six years.

Year	2000	2001	2002	2003	2004	2005	2006
Birds Captured	875	629	950	754	532	276	243
Birds Banded	672	472	740	546	424	196	169
Net Hours	2330.00	1755.50	2568.75	2218.75	1809.00	1569.50	1678.25
Capture rate (birds/100NH)	37.55	35.83	36.98	33.98	29.41	17.46	14.48
Species Captured	47	39	55	44	38	32	32

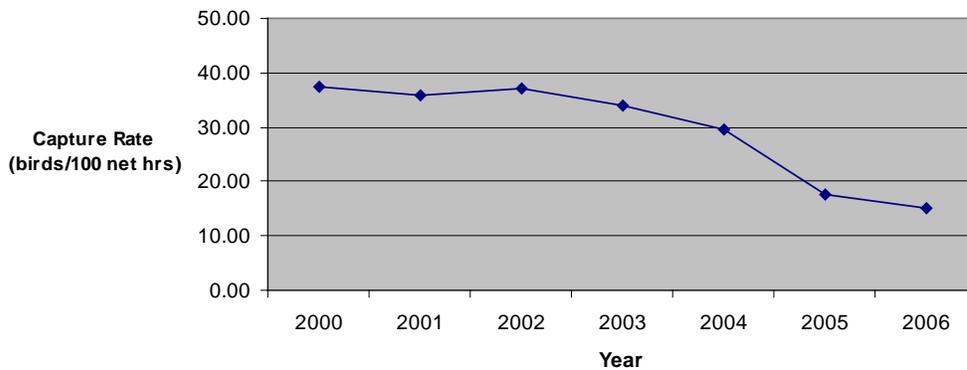


Figure 1. A comparison of capture rates (birds/100 net hours) between 2000 and 2006.

Table 1. Birds caught in mist-nets during 2006 spring migration monitoring at BBO.

Species	Banded	Recapture	Foreign	Other	Total
Alder Flycatcher	1	0	0	0	1
American Goldfinch	4	1	0	1	6
American Redstart	4	0	0	0	4
American Robin	2	2	0	0	5
Baltimore Oriole	2	2	0	0	4
Black-capped Chickadee	1	0	0	0	1
Brown-headed Cowbird	5	6	0	0	11
Blackpoll Warbler	1	0	0	0	1
Clay-colored Sparrow	20	0	0	3	23
Chipping Sparrow	4	0	0	2	6
Gray-cheeked Thrush	1	0	0	0	1
Hermit Thrush	2	0	0	0	2
House Wren	14	3	0	0	17
Least Flycatcher	40	29	0	0	69
Long-eared Owl	1	0	0	1	2
Lincoln's Sparrow	2	0	0	0	2
Magnolia Warbler	1	0	0	0	1
Mallard	0	0	0	1	1
Myrtle Warbler	2	0	0	0	2
Orange-crowned Warbler	2	0	0	0	2
Ovenbird	1	0	0	0	1
Rose-breasted Grosbeak	1	0	0	0	1
Savannah Sparrow	4	0	0	0	4
Slate-colored Junco	2	0	0	0	2
Song Sparrow	4	1	1	0	6
Swainson's Thrush	18	0	0	1	19
Tennessee Warbler	1	0	0	0	1
Traill's Flycatcher	6	1	0	0	7
Warbling Vireo	0	1	0	0	1
Wilson's Warbler	3	0	0	0	3
White-throated Sparrow	5	0	0	0	5
Yellow Warbler	14	16	1	1	32
TOTAL	169	62	2	10	243



A common bird caught in the nets (Yellow Warbler) and an uncommon one (Grey Catbird)^{1,2}

Tree Swallow Grid Monitoring

Work began in the Swallow Grid on May 1st, repairing and re-orienting the boxes and checking the status of the few nest starts. We monitored the Swallow Grid on 14 days between May 1 and July 11. A few nests were started as early as May 1, and the first eggs hatched around June 7. 30 adult Tree Swallows were captured (17 females and 4 males were banded; 8 females were recaptures). A pair of Mountain Bluebirds is also nesting on the grid and we banded the female. Numbers were painted on all of the boxes to increase their visibility. We look forward to banding many nestlings!



Katie and Lisa (with Sam and Buttons) banding in the Swallow Grid ³

Other Nest Monitoring

No Saw-whet Owls took up residence in the eight owl-friendly boxes in the Natural Area this year. Three boxes had new Flying Squirrel nests, four held old squirrel nests and one box was empty. However, Saw-whets did nest in several boxes located outside the Natural Area which were monitored by Chuck and Lisa Priestley.

Within the Natural Area we found nests of American Robin (2), Least Flycatcher, Warbling Vireo, Yellow Warbler, Mourning Dove, Black-billed Magpie and Long-eared Owl. We banded one robin chick and 2 magpie chicks and look forward to banding the other accessible nests (2 Long-eared Owl chicks were seen in the nest on June 9)! Two afternoons were spent searching for Short-eared Owl nests (by Katie and I, then Lisa a few days later). We only found pellets and feathers, but it was probably a bit early for nesting.



Black-billed Magpie chick ⁴

We also began to monitor activity at Francis Point, and banded a pair of Mountain Bluebirds busy feeding their nestlings. Tree Swallows, Mountain Bluebirds, and House Wrens are using the nest boxes, and we found several Barn Swallow nests and one Vesper Sparrow nest.

Several other “charismatic” species have had young in the Natural Area this spring, including porcupine, ermine, white-tailed deer, and numerous snowshoe hares. We were lucky to find a coyote den a few hundred yards from the lab (a coyote pup sitting on top of the grassy mound gave it away). 20 minutes later, two pups came out and played in the den entrance. It is encouraging to see the Beaverhill Natural Area supporting this diverse wildlife (in addition to the smaller mice, voles, shrews, and insects).



Katie bands a Mountain Bluebird ⁵

Butterfly Monitoring

In late May we began a Pollard Walk in the Natural Area to survey butterflies. This walk replicates Tyler Flockart's 2000 route to compare changes in species, species richness and habitat association. The route is covered once a week and will be monitored until at least the end of August. We also record incidental butterfly sightings to compare with past records (published in 2002. Flockart, D.T. The Butterfly Fauna of Beaverhill Lake, AB. Blue Jay 92:93-106). John Acorn visited the Natural Area on May 18 and saw an Anise Swallowtail (*Papilio zelicaon*), which is a new species record for the Natural Area.



Can. Tiger Swallowtail ⁶

Table 3: List of butterfly species sighted in the Natural Area between May 1 and June 11, 2006.

Arctic Skipper	Clouded Sulpher	Green Comma
Dreamy Duskywing	Spring Azure Blue	Grey Comma
Can. Tiger Swallowtail	Western-tailed Blue	Mourning Cloak
Anise Swallowtail	Silvery Blue	Milbert's Tortoiseshell
Cabbage White	Greenish Blue	Red-disked Alpine

Other Work

A new activity this season was dealing with Foxtail Barley (*Hordeum jubatum*) seeds. Conditions last summer allowed this native grass to flourish, and the dispersing seeds gathered in the Natural Area. Raking was the best solution for clearing net-lanes. 14 large garbage bags were packed with the seeds from just three net lanes (in one afternoon!). This profusion of seeds was responsible for numerous Short-eared Owls in the area which attracted many birdwatchers. The media took interest as well and CBC Radio interviewed Lisa Priestley.



Clearing seeds from a net lane ⁷

We repaired, repainted and re-staked many of the signs around the Natural Area and put up some new trail signs. The large carved BBO sign (hanging at the intersection of BBO Boulevard and Long-eared Owl Lane) and the BBO logo on the lab wall each received a new coat of paint. Other projects included entering 2000 banding data into the database, transcribing the BBO Manual in order to have an electronic copy for easier updating, cleaning out some old boxes and paperwork from the lab and bunkhouse, and scrubbing off some of the grime built up on cupboards and walls.

An improvement to the lab building is the long-awaited new gas (cooking) stove. Al DeGroot and his friend Jack brought out and installed the new stove. Unlike the old stove it replaces, this stove has a working oven, which we (and many others) will really appreciate.



Al and Jack move out the old stove ⁸

Interpretation

Big Birding Breakfast

The Big Birding Breakfast (formerly the Crepe Spectacular) held on May 28 was a highlight this spring. 32 people attended the event, including some kids with a lot of energy and enthusiasm. We were fortunate to catch several birds (32) in the nets- our highest captures for any day of spring monitoring! It was exciting to see two new species for the season, Wilson's Warblers and American Redstarts. Many people followed along to watch net extractions, bird banding, and some were able to help release a bird. Janos Kovacs cooked up his famous crepes and several people purchased memberships to the BBO.



Janos cooking crepes ⁹



Visitors watching Katie take a bird out of a mist net ¹⁰



Releasing a Least Flycatcher ¹¹

Bird Studies Canada Baille Birdathon

The Baille Birdathon raises awareness of birds, and some of the money raised is donated to designated locations, including the BBO. Katie and I participated in the 2006 Baille Birdathon on May 31. We began the day with banding and a census at the lab. After banding we headed over to Amisk Creek, went for a long walk in search of the east shore of Beaverhill Lake and then headed up to Elk Island National Park. We saw 84 species- nothing as impressive as past records, but not bad for a first try.

Edmonton Carving Association Barbeque

On June 3 the Edmonton Carving Association came out for a morning of banding and a lunch barbeque. We caught one bird before closing the nets due to wind and heading to the Swallow Grid. Visitors spent a windy morning helping (with feathers and the run-and-cover) catch and band adult Tree Swallows, and were pleased to see the female Mountain Bluebird nesting on the Grid.

Volunteers

Since neither Katie nor myself held a Banding Permit at the beginning of the season, we relied on licensed banders to help us out. Lisa Priestley was at the lab to train us for most of the season (23 days). Other tips and techniques were passed on by volunteers: Sarah Trefry (2 days), Barb and Jim Beck (1 day), Chuck Priestley (1 day), and Christine Boulton (1 day). Barb, Jim and grandson Calvin Beck also covered a staff day off and were rewarded with a Long-eared Owl in net 49.

In addition to special events, there were few casual visitors to the lab this spring. Sarah Lord and her field assistant Krystal Tangen spent a day at the lab to review banding to obtain a sub-permit for American Dippers. Sarah will be studying these birds in Jasper National Park for her M.Sc. degree. Eight ladies of the “Wild Rose Ramblers” (John Janzen Nature Centre) stopped by on a blustery May morning. Neil and Roberta Cameron, Liz and Chip Reid, Paul Burwell and his camera, Irene and Bob from Tofield and (of course!) Chuck and Sam Priestley also visited.

Banding permits for staff were delayed due to some unexpected changes in the process for issuing permits. This necessitated Lisa Priestley spending extra time at the lab helping us cover banding hours, and days where we could not band due to lack of a licensed bander. After several emails and phone conversations with Canadian Wildlife Service (CWS) regarding both the permit requirements and our staff training and experience, a permit was finally issued on June 9 – allowing us to band without a trainer for the final day of Spring Migration Monitoring.

Acknowledgments

The BBO depends on volunteers, and their help, enthusiasm and encouragement has been greatly appreciated. Many Board members helped with the Big Birding Breakfast (Lisa and Chuck Priestley, Margaret Takats, Al DeGroot) and Edmonton Carving Association BBQ (Bryn Spence, Lisa and Chuck Priestley), and others work behind the scenes, taking care of the BBO web site, bookkeeping, and other tasks. Thank you to everyone. Special thanks to Lisa Priestley for her willingness to spend an enormous amount of time training us this spring, and for hauling wood, water, and propane out to the lab. And finally, I need to thank my co-worker Katie Cameron, for being so wonderful to work with and whose knowledge, and especially enthusiasm, regarding birds I appreciate daily!



The freshly painted and much admired (by us) sign. ¹²

Photo Credits:

Photos 1, 2, 6: Katie Cameron
Photos 3, 4, 5, 7, 8, 12: Allicia Kelly
Photos 9, 10, 11, 13: Lisa Priestley



BBO 2006 Summer Staff: Katie Cameron and Allicia Kelly ¹³



Summer Report 2006

Katie Cameron

Introduction

The summer staff of 2006 was made up of Allicia Kelly (Head bander) and Katie Cameron (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 migration 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 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, weekly Pollard Walks (Butterfly surveys), the North American Butterfly Association Annual Butterfly Count as well as writing weekly updates and maintenance around the lab. All in all it was a great learning experience for the staff and another successful year of MAPS for the Beaverhill Bird Observatory.

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).

A total of 876.5 hours of banding were conducted this summer out of a possible 900 (97.3%). Net hours that were lost were due to poor weather conditions; either the temperature was too hot or it was raining. A total of 208 birds from 17 different species were captured in the mist nets. Some of our favourite catches were the Red-winged Blackbirds, the Cedar Waxwings, and the Rose-breasted Grosbeaks. The summary of all species captured is broken down by location in Appendix 1.



Adult male Rose-breasted Grosbeak

PARK

The PARK station (Lat 53 22 34 Long 112 31 45) has been in operation since 1996, with a habitat structure described on the MAPS website as Balsam poplar, aspen, and willow with no shrub layer¹. A total of 33 individual birds were caught here, from 6 species through the 299.5 hours of mist netting, resulting in 11.0 birds/100 net hours. This location had the lowest capture rate for the year, which is consistent with the data from 2002-2006 (Figure 1). See Appendix one for the species breakdown of birds caught at this location.

Dates banding was conducted were: June 1, June 21, July 1, July 11, July 21, July 24. There were 6 days of banding as we caught up net hours by banding an extra day when we had

lost hours due to weather. On July 11 we lost hours due to net repairs and on July 21 to exceeding the maximum allowable temperature. We caught up those hours on the 24th.

BLAB



The BBO lab

The BLAB station (Lat 52 22 50 Long 112 31 39) has been operating since 1989, the very beginning of the MAPS program. The habitat structure is described as young poplar, aspen, and willow adjacent to a riparian habitat¹. However, this year it could not be considered adjacent to a riparian area (and a few previous years!) due to low lake levels. A total of 79 birds were captured during the mist netting at this location from a total of 12 species in 292 net hours. This yielded a capture rate of 27.1 birds/100 net hours. This capture rate is very similar to that of the past 3 years (Figure 1). See Appendix one for the full

breakdown of birds caught at this location.

Dates Banding: 18 June, 22 June, 2 July, 12 July, 22 July. Net hours were lost on July 22 as temperatures exceeded the allowable maximum.

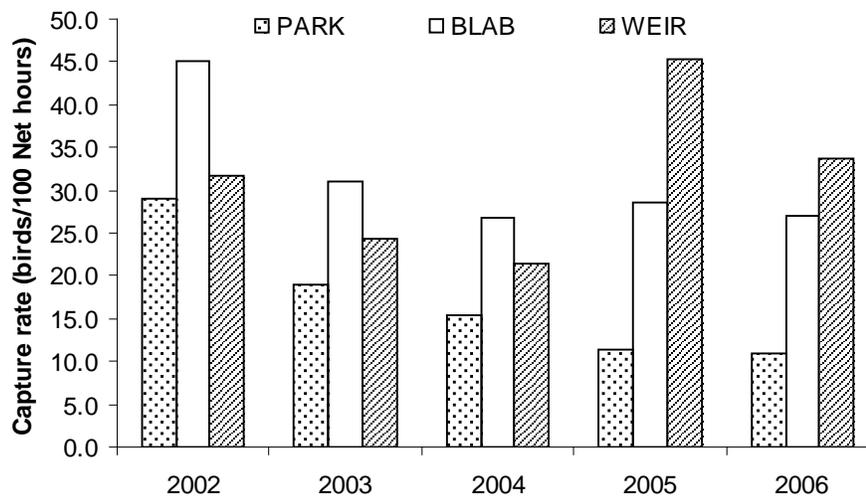


Figure 1. Capture rate for each MAPS banding station from 2002 to 2006.

WEIR

The WEIR station (Lat 53 22 48 Long 112 30 19) has been in operation since 1994, and the habitat is described as Balsam poplar, aspen and willow adjacent to a riparian habitat¹. Though lake levels were low, there was sufficient water in Lister Lake to consider it still adjacent to a riparian area, though no riparian species were captured in the mist nets. A total of 96 birds from 12 species were captured in 285 total net hours, yielding a capture rate of 34.0 birds/100 net hours. Though lower than the capture rate for 2005, this value is comparable to the capture rates of 2002-2004 (Figure 1). See Appendix one for the species breakdown of birds caught at this location.

Dates of banding were: 19 June, 23 June, 3 July, 14 July, 23 July. Hours were lost on June 19 due to net repairs, and on July 23 due to a thunderstorm. We were unfortunately unable to make up these lost net hours.

All stations

The four most abundant species that were banded were Least Flycatchers (61, 48.4%), Black-capped Chickadees (16, 12.7%), American Robins (7, 5.6%) and Warbling Vireos (7, 5.6%). The four most abundant species caught were Least Flycatchers (122, 58.7%), Black-capped Chickadees (17, 8.2%), Warbling Vireos (10, 4.8%), and Yellow Warblers (9, 4.3%). Though we caught more Yellow Warblers than American Robins, all but one Robin captured required a band, where most of the Yellow Warblers had been previously banded this year during Spring Migration Monitoring.

Productivity

One kind of information that can be gleaned from the mist-netting data is the productivity of birds², indicating how successful they were at raising young. Productivity can be calculated as the proportion of juveniles caught, or the number of juveniles divided by the total captures.

The productivity of all species combined for all MAPS locations was 24 juveniles/178 captures or, 13% of all captures were juveniles.

Broken down by location, PARK had a proportion of 0 % juveniles, BLAB 14% juveniles and WEIR 18% juveniles. It is difficult to say why there is such a discrepancy in the productivity of PARK in comparison to the other locations, but it is worth noting that there were far fewer total birds captured at PARK. The low proportion of juveniles may just be a factor of the low numbers of birds found in the area.

During MAPS we caught juveniles of the following species; American Robin, Baltimore Oriole, Black-capped Chickadee, Downy Woodpecker, and Least Flycatcher.



Juvenile American Robin

Point counts

Point counts were also conducted at 9 locations within each of the MAPS stations. Point counts were done on the same 10 day rotation as the mist netting, but in most cases 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 and direction of the bird. The main advantage of using point counts in addition to mist-netting efforts is that birds that are not caught in mist nets may also be surveyed; this was particularly helpful in detecting birds too large to be captured, those who do not fly through the forest, and those found in marsh habitat. Mist netting had a priority over point counts, and as such the weather stipulations for point counts were not as stringent, allowing them to be conducted in all types of weather. The list of species heard during point counts can be found in Table 1. Dates point counts were conducted are as follows:

Park June 17, June 29, July 4, July 10, July 21

Blab June 30, July 5, July 13, July 22

Weir June 11, June 24, July 4, July 14, July 23

*One point count was missed

Table 1. Species heard during point counts, all three stations combined.

Alder Flycatcher	Hermit Thrush	Ruffed Grouse
American Bittern	House Wren	Savannah Sparrow
American Coot	Killdeer	Song Sparrow
American Crow	Least Flycatcher	Sora
American Goldfinch	Lesser Yellowlegs	Sprague's Pipit
American Robin	Long-eared Owl	Tennessee Warbler
Baltimore Oriole	Mallard	Tree Swallow
Barn Swallow	Marbled Godwit	Warbling Vireo
Black Tern	Marsh Wren	White Throated Sparrow
Black-billed Magpie	Mourning Dove	Willet
Blue-winged Teal	Northern Flicker	Wilson's Snipe
Brown-headed Cowbird	Northern Harrier	Yellow Warbler
Canada Goose	Pied-billed Grebe	Yellow-bellied Sapsucker
Cedar Waxwing	Red-eyed Vireo	Yellow-headed Blackbird
Clay-coloured Sparrow	Red-tailed Hawk	
Common Raven	Red-winged Blackbird	
Dark-eyed Junco	Rose-breasted Grosbeak	
Downy Woodpecker	Ruby-throated Hummingbird	
Total Species Count		50

Nest-side Banding

Tree Swallow Grid

Once again the Tree Swallow Grid was an active place to be! A total of 242 young were banded this year from 41 nest boxes. This was a good year for the Tree Swallows in comparison to the last 4 years (Table 2). Banding of the young was carried out furiously between June 23rd and July 11th. There was only one escapee who fledged before being banded (flying right out of the bander's hand!).



Alicia banding Tree Swallows

Productivity calculations for the Tree Swallows would be biased because the adults were not systematically sampled, whereas the young were. The best estimate that could be arrived at would be assuming two adults per nest, with 41 nests equalling 82 birds. This yields a proportion of juveniles of 295%, likely an overestimation as some adults would not have bred this year.

Table 2. Statistics from the Tree Swallow Grid banding for the last 4 years.

	2002 ³	2003 ⁴	2004 ⁵	2005 ⁶	2006
Number of young banded	174	137	194	195	242
Total number of nests	34	29	35	unavail.	41
Average young/nest	5.12	4.72	5.54	unavail.	5.90
Highest fledging success	unavail.	9	7	unavail.	8
Lowest fledging success	unavail.	3	1	unavail.	2

Within Natural Area

Other nest side banding efforts continued through the summer, and in the Natural area 19 nests were discovered (Table 3). Only two of those nests were successfully banded, 7 House Wren and 3 Long-eared Owl young received bands. Many of the nests failed, though some had an unknown outcome. Of the failed nests, some experienced predation or were destroyed by weather (mainly wind). Unknown outcomes are the result of finding a nest with eggs, young or adults present, but on the next visit finding nothing in the nest. In some cases, enough time had passed between visits to the nests for the young to have successfully fledged, as was likely the case with the Mourning Dove nest.



Banding a Long-eared Owl chick

Table 3. Summary of nests and outcomes within the Natural Area in 2006.

Species	Young Banded	Outcome
House Wren	7	Successful, fledged 8 young (1 escaped)
House Wren	0	Failed
House Wren	0	Failed
House Wren	0	Failed
House Wren	0	Successful, fledged at least 4 young
Long-eared Owl	3	Successful, possibly fledged 4 young
Long-eared Owl	0	Failed
Tree Swallow	0	Failed
American Robin	0	Failed
American Robin	0	Failed
Least Flycatcher	0	Failed
Least Flycatcher	0	Unknown
Yellow Warbler	0	Unknown
Yellow Warbler	0	Unknown
Warbling Vireo	0	Success, fledged as least 2 young
Mourning Dove	0	Unknown, probably fledged 2 young

Francis Point

Banding at Francis View Point, which is found along Rowan’s Route West of the Natural Area, was kept up with rigorously this summer, and many more of the nests monitored there had successful outcomes and the young banded. A summary of the nests is found in Table 4.

A personal favourite banding experience was catching a female Vespers Sparrow with a butterfly net when we had discovered her brooding. The young unfortunately escaped banding, we hope by fledging between our visits.



Vesper Sparrow nest

Table 4. Summary of nests and their outcomes from Francis Point in 2006.

Species	Young Banded	Outcome
Barn Swallow	4	Success
Barn Swallow	4	Success
Barn Swallow	0	Unknown
Barn Swallow	4	Success, 5 young total
Barn Swallow	4	Success, 5 young total
House Wren	7	Success
Mountain Bluebird	5	Success
Mountain Bluebird	6	Success
Mountain Bluebird	6	Success
Tree Swallow	0	Unknown
Tree Swallow	0	Unknown
Tree Swallow	0	Unknown
Tree Swallow	8	Success
Tree Swallow	0	Unknown
Tree Swallow	6	Success
Tree Swallow	0	Success, 4 young fledged
Tree Swallow	0	Failed
Tree Swallow	0	Success, 6 young fledged
Vesper Sparrow	0	Unknown, 2 young

Other Areas

The staff also got to take part in some raptor nest banding this year, thanks to Al de Groot, and Chuck and Lisa Priestley each taking the staff out to band. These nests were found in a variety of locations East and North of Edmonton. Red-tailed Hawks, Northern Saw-whet Owls and American Kestrels were banded with at least one staff member in tow, and these trips were thoroughly enjoyed! It was an amazing experience to climb trees and see the baby raptors in their element, and to set sleepy eyed owlets together to wait their turn to be banded.



Katie with Northern Saw-whet Owlets

North American Butterfly Association Butterfly Count 2006



The Annual Butterfly count was run successfully once again this year, with seven volunteers coming out to dash around and swing their nets. The afternoon count began immediately following banding and lunch, with the troops headed through the natural area from the lab, to the Weir, out along Harrier Highway, and then to Amisk Creek (1 mi south). The efforts yielded 16 species and 629 individual butterflies. See Table 5 for a full break down of the species. By the end of the day most participants were less than a little enthusiastic

about Northern Crescents, but a good time was had by all. Thanks to everyone for coming out! Participants (left to right): Jim Beck, Ed Cameron, Barb Beck, David Lawrie, Claudia Cameron, Jessica Bennett, and Erik Ligtenberg. Not in photo: The summer staff.

Table 5. NABA Butterfly count results 2006

Species	Poplar/willow habitat	Amisk Creek	Poplar forest/Amisk Creek	TOTAL
European Skipper	3	1	8	12
Peck's Skipper	0	1	0	1
Long Dash Skipper	2	0	0	2
Skipper sp.	2	0	3	5
Cdn Tiger Swallowtail	1	0	3	4
Cabbage White	5	1	1	7
White sp.	0	0	13	13
Clouded Sulphur	0	4	1	5
Sulphur sp.	0	0	2	2
Grey Copper	0	1	1	1
Greenish Blue	7	3	4	14
Silvery Blue	0	1	3	4
Western-tailed Blue	2	0	0	2
Blue sp.	0	0	8	8
Fritillary sp.	1	0	0	1
Milbert's Tortoiseshell	0	0	1	1
Northern Crescent	255	0	48	303
White Admiral	52	1	126	179
Northern Pearly Eye	4	0	9	13
Inornate Ringlet	8	22	22	52
TOTAL # BUTTERFLIES				629
TOTAL # SPECIES				16

Other Activities

Other activities that occurred around the lab this summer included some general maintenance, like fixing the leak in the Nuthatch Nest cabin, regular net mending, and making bird bags. The staff successfully survived changing a flat tire on Accipiter Alley when the tire decided that carrying 3 jugs of water was just too much on the bumpy road. A complete overhaul of the shed was completed, as if the staff didn't have enough other work to do! A significant portion of staff time was spent entering data and writing the weekly updates for the web page.

Also this year there was an unfortunate theft from the lab, from which the staff are still trying to recover. Particularly important articles that were stolen include the spotting scope, one copy of Pyle (1997a), banding pliers, and bird bags. Other

items included such things as cookware, a power transformer, and staff field books and hammocks. This is the second theft to occur at the BBO and a potential solution to this is the discussed construction of a locking gate so that only staff is able to enter with vehicles.



Alicia changing the flat tire

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

Volunteers/Visitors

A number of visitors joined us out at the lab, some from far and wide! We were pleased to have the following people stop by for a visit:

Cathy, Don, Anna and Ziliana Page
Claudia and Ed Cameron
Mike and Kay Berger
Erik Ligtenberg
Barb and Jim Beck

Estelle, Gerhart and Eric Reuter
Kyle and Cindy Kelly
Jessica Bennett
Dave Lawrie

Lisa Priestley also covered one day of point counts for MAPS.

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Appendix 1.

Summary of species captured during the MAPS program for each banding location from June 11, to July 31, 2006.

Species	Banded			Recapture			Other *			TOTAL			GRAND TOTAL
	PARK	BLAB	WEIR	PARK	BLAB	WEIR	PARK	BLAB	WEIR	PARK	BLAB	WEIR	
American Robin	0	2	5	0	0	1	0	0	0	0	2	6	8
Baltimore Oriole	0	2	1	0	0	0	0	0	0	0	2	1	3
Black-capped Chickadee	0	8	8	0	1	0	0	0	0	0	9	8	17
Brown-headed Cowbird	0	3	3	0	0	0	0	1	1	0	4	4	8
Cedar Waxwing	2	0	0	0	0	0	0	0	0	2	0	0	2
Clay-coloured Sparrow	0	2	0	0	1	0	1	0	0	1	3	0	4
Downy Woodpecker	1	1	1	0	0	0	0	1	0	1	2	1	4
Hermit Thrush	0	0	3	0	0	2	0	0	1	0	0	6	6
House Wren	0	2	0	0	1	0	0	1	0	0	4	0	4
Least Flycatcher	12	12	37	10	23	11	3	7	7	25	42	55	122
Ovenbird	0	1	1	0	0	0	0	0	0	0	1	1	2
Red-eyed Vireo	0	1	2	0	0	0	0	0	0	0	1	2	3
Red-winged Blackbird	2	0	0	0	0	0	0	0	0	2	0	0	2
Rose-breasted Grosbeak	0	0	2	0	0	0	0	0	0	0	0	2	2
Swainson's Thrush	1	1	0	0	0	0	0	0	0	1	1	0	2
Warbling Vireo	1	2	4	0	1	1	0	0	1	1	3	6	10
Yellow Warbler	0	0	3	0	4	0	0	1	1	0	5	4	9
TOTAL	19	37	70	10	31	15	4	11	11	33	79	96	208



**Beaverhill Bird Observatory
Fall Report 2006**

by

Lisa Priestley

November 2006

Abstract

Songbird migration monitoring was conducted from August 1 through October 10, 2006. There were 1969 birds captured (56.6 birds/100 net hours), an increase in capture rate from 2005. Saw-whet owl nets were set from September 6 through November 8 on 37 days. We caught 149 saw-whet owls (capture rate of 26.0 owls/100 net hours). Two raptor nests were found containing young: three Long-eared Owl and three Swainson's Hawk young were banded. We participated in a variety of interpretive events in Edmonton and Peace River. The Steaks and Saw-whets event was a huge success with over 100 people coming out to the lab to observe saw-whet owl banding.



The Beaverhill Bird Observatory lab by torchlight (photo by Tim VanDam).



Songbird Fall Migration Monitoring

Fall migration at Beaverhill Bird Observatory in 2006 was exceptional compared to previous years. In 2005 we had an increase in the capture rate of birds after a long downward trend, and 2006 had another increase. There were 1969 birds captured (56.6 birds/100 net hours), with 1525 birds banded (Tables 1 and 2). A total of 3476.00 net hours were run, representing 62.8% of the total 5538 net hours that were possible. Eight full days were missed due to poor weather, three full days were missed due to the banding workshop in Saskatchewan, and 11 days were missed for staff days off.

Table 1. 2006 fall songbird banding results compared to previous five years.

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

* includes a Mallard and Ruffed Grouse

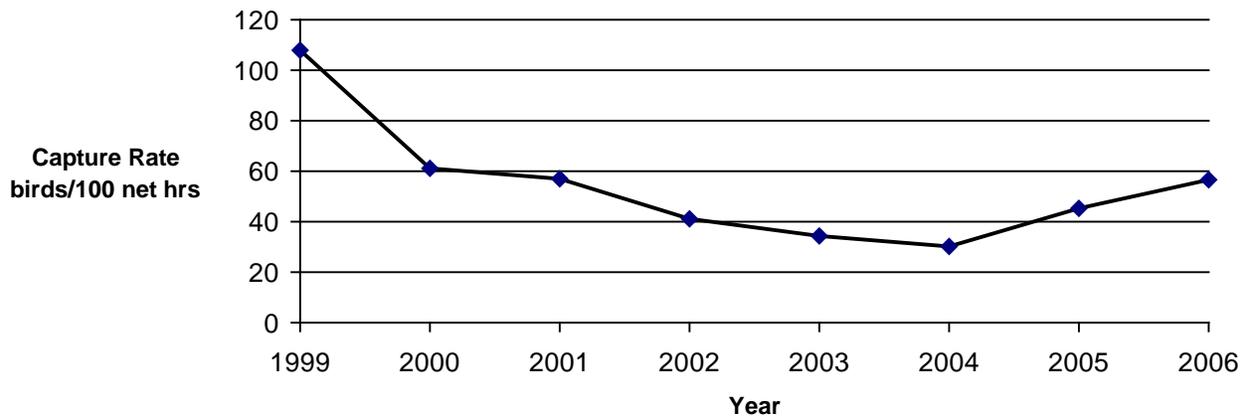


Figure 1. A comparison of capture rates (songbirds/100 net hours) between 1999 and 2006.

Top five species representing 63.6% of the captures were: Myrtle Warbler (648), Black-capped Chickadee (227), American Tree Sparrow (156), Slate-colored Junco (130), and Least Flycatcher (91). Unusual species captured in the fall of 2006 include: a Long-eared Owl, 2 Blue Jays, 7 Brown Creepers, 2 White-breasted Nuthatches, and 4 Pine Siskins. Myrtle Warbler numbers continued to increase again this year.

Table 2. Birds caught in mist nets at Beaverhill Bird Observatory fall 2006.

Species	Banded	Recapture	Foreign	Other	Total
Alder Flycatcher	16	0	0	0	16
American Goldfinch	3	0	0	0	3

American Redstart	40	0	0	2	42
American Robin	0	0	0	1	1
American Tree Sparrow	124	11	0	21	156
Baltimore Oriole	3	0	0	0	3
Black-and-White Warbler	8	0	0	1	9
Bay-breasted Warbler	2	0	0	1	3
Black-capped Chickadee	85	126	0	16	227
Brown-headed Cowbird	1	0	0	0	1
Blue-headed Vireo	1	0	0	1	2
Blue Jay	2	0	0	0	2
Blackpoll Warbler	19	1	0	3	23
Brown Creeper	7	0	0	0	7
Canada Warbler	3	0	0	0	3
Clay-colored Sparrow	17	0	0	2	19
Cedar Waxwing	2	0	0	0	2
Cape May Warbler	1	0	0	0	1
Downy Woodpecker	6	4	0	1	11
Eastern Phoebe	1	0	0	0	1
Fox Sparrow	1	0	0	0	1
Golden-crowned Kinglet	2	0	0	0	2
Hairy Woodpecker	4	2	0	1	7
Hermit Thrush	4	1	0	0	5
House Wren	5	5	0	0	10
Least Flycatcher	74	14	0	3	91
Long-eared Owl	0	1	0	1	2
Lincoln's Sparrow	8	0	0	0	8
Magnolia Warbler	23	0	0	0	23
Mallard	0	0	0	1	1
Mourning Warbler	2	0	0	1	3
Myrtle Warbler	517	29	0	102	648
Northern Flicker	0	0	0	1	1
Northern Waterthrush	6	0	0	1	7
Orange-crowned Warbler	57	2	0	5	64
Ovenbird	37	1	0	4	42
Philadelphia Vireo	7	0	0	0	7
Pine Siskin	4	0	0	0	4
Rose-breasted Grosbeak	1	0	0	0	1
Red-breasted Nuthatch	3	0	0	0	3
Ruby-crowned Kinglet	42	2	0	2	46
Ruby-throated Hummingbird	0	0	0	1	1
Ruffed Grouse	0	0	0	1	1
Red-eyed Vireo	21	1	0	0	22
Savannah Sparrow	1	0	0	0	1
Slate-colored Junco	104	7	0	19	130
Song Sparrow	12	2	0	2	16
Sharp-shinned Hawk	3	0	0	1	4
Swamp Sparrow	1	0	0	0	1
Swainson's Thrush	22	1	0	0	23
Tennessee Warbler	55	2	0	1	58
Traill's Flycatcher	5	0	0	0	5
Unknown Empidonax	0	0	0	1	1
Unknown Tyrannidae	0	0	0	1	1
Warbling Vireo	19	5	0	0	24
White-breasted Nuthatch	2	3	0	0	5
White-crowned Sparrow	24	2	0	4	30
Western Tanager	1	0	0	0	1
Wilson's Warbler	24	0	0	1	25
Western Palm Warbler	7	0	0	1	8
White-throated Sparrow	30	2	0	6	38
Yellow-bellied Flycatcher	1	0	0	0	1
Yellow Warbler	55	7	1	2	65
Total	1525	231	1	212	1969

Raptor Traps

The raptor traps were not run in 2006 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 6 and was completed on November 8. A total of 37 days were covered amounting to 575.5 net hours. The weather in September was very poor, and we could not set on many days due to rain and wind. We caught 149 saw-whet owls (capture rate of 26.0 owls/100 net hours), slightly higher numbers than 2005 (Table 3 and 4, Figure 2). Table 4 shows the comparison of capture rates with data from September 1 to November 8, from 2002 to 2004 trapping was conducted during the second half of August, but it was found that saw-whets did not really begin migration until mid-September (Priestley and Priestley 2006).

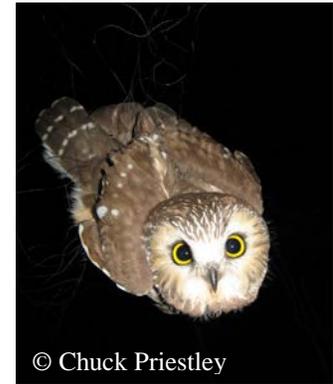


Table 3. The number of northern saw-whet owls captured at Beaverhill Lake 2002-2006.

Year	Number of Nights	Number of Net Hours	Number of Owls Captured	Number of Owls/ 100 Net Hours
2002	74	1097.0	145	13.2
2003	64	903.0	151	16.7
2004	75	1172.0	309	26.4
2005	39*	632.0	135	21.4
2006	37*	575.5	149	26.0
Total	--	--	889	--

* fewer days and net hours due to start in September and poor weather

Table 4. The number of northern saw-whet owls captured at Beaverhill Lake 2002-2006 between September 1 and November 8.

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	575.5	149	26.0
Total	--	--	865	--

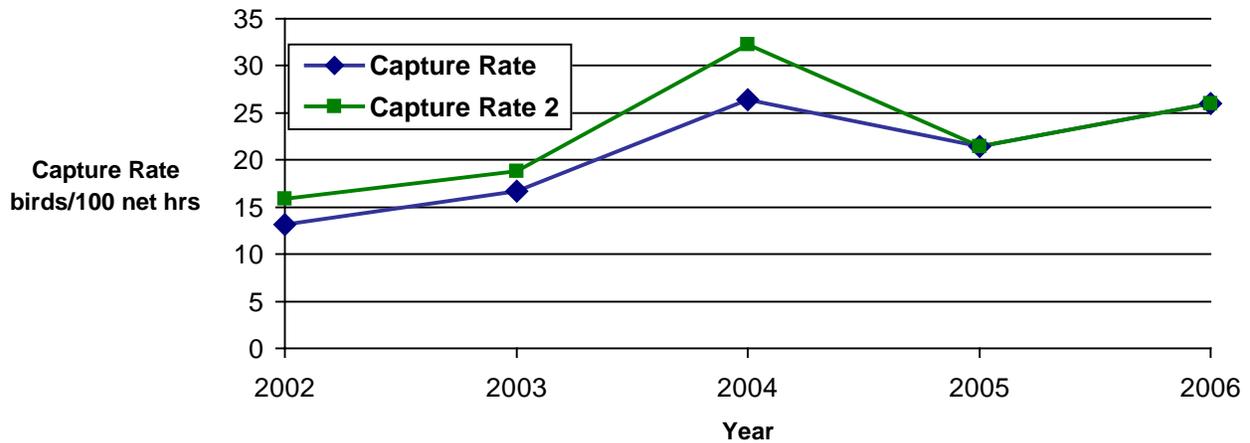


Figure 2. A comparison of capture rates (saw-whets/100 net hours) between 2002 and 2006: capture rate (all captures), capture rate 2 (September 1 to November 8 only).

Other Sites

Hardy Pletz spent XX nights (XX net hours) trapping for saw-whets at his acreage Pletz Park, south of Millet, and caught XX saw-whet owls (0.197 owls/net hour). This was XXXX to the 19.7 owls/100 net hours in 2005, and 45.5 owls/100 net hours from 2004.

Al DeGroot began trapping saw-whet owls at his acreage in Redwater (north of Edmonton). He caught 8 saw-whet owls in 9 nights (43 net hours) with a capture rate of 18.6 owls/100 net hours.

Raptor Nest Banding

We were fortunate to have the Long-eared Owls nest successfully near the lab this year. Originally the nest basket behind the lab had an female owl on it, however, the nest failed after some poor weather. Soon after this, four eggs were counted in an old Magpie nest near the lab, and on August 3, staff with help from Lisa and Chuck banded three young fledgling owls.



After banding the owls, on the return to Tofield, a Swainson's Hawk nest was also discovered near Francis Point in a low stick nest in a Willow. The three young were about 35 days old and we banded them.



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. We had 8 people from the Edmonton Nature Club, 13 people for a City of Edmonton tour, and 38 people from the Alberta Student Chapter of the Wildlife Society. There were also 24 casual visitors to the Natural Area observing songbird and owl banding throughout the fall season.

Of course, the one of the big highlights of the fall interpretation events was the annual Steaks and Saw-whets barbeque. There were 45 and 55 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 by Sarah Trefry).



November 1 and 2, the Forest Explorers event was again held in Peace River. Hosted by the Boreal Forest Research Center and Peace River High school, this event showcases forest related groups and programs that high school students may consider for their careers or to become members of. Over 550 students went observed the displays set up in a gymnasium for the two days. As well, we presented two Power Point talks, one in the Biology 20 classroom and one at the Travellers Hotel conference room to two classes of students and 10 members of the public. Napi the Burrowing Owl made an appearance at the event.



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Nature Canada
Shell Environmental Fund
TD Friends of the Environment

There were some very keen volunteers this fall at the bird observatory. Following are the volunteers that helped with banding at the lab (# of days): Jill Anderson (1), Jim, Barb, and Calvin Beck (1), Gerry and Robyn Beyersbergen (2), Isaac Calon (2), Matt Hanneman (1), Heather Hinam (1), Allicia Kelly (4), Chuck Priestley (11), Gill Priestley (1), Peter Stahl (1), Sarah Trefry (1), Tim VanDam (2). Further I need to thank all the volunteers that helped out for the Steaks and Saw-whets event: Jim and Barb Beck, Christine Boulton, Al DeGroot, Warren Fleming, Geoff and Peggy Holroyd, James and Keegan Shepperd, Bryn and Juanita Spence, Margaret and Josef Takats, Helen and Sarah Trefry. I was not able to attend due to a family emergency and the event would not have run without all the volunteers that worked so tirelessly to make the event a HUGE success. Finally thanks to Bryn Spence for volunteering at the John Janzen Nature Center and Sarah Trefry for bringing Napi and helping with the 38 students from the U of A that came out for saw-whets.

Photo of James and Keegan
Shepperd
volunteering at Steaks and Saw-
whets
(photo by Sarah Trefry)



APPENDIX – Photos of fall migration work.



Visitors to the lab observing songbird (left) and owl (right) banding.



Sharp-shinned Hawk caught in songbird nets.



Students from U of A meeting a Burrowing Owl.



More visitors to the bird observatory.

