Beaverhill Bird Observatory
Spring Report 2005

by

Lisa Priestley

June 2005

Songbird Migration Monitoring

The number of songbirds captured this spring, 2005 continued to be lower than previous years. Only 276 birds were caught in the mist nets, with 196 birds banded (1569.5 net hours). The top five species in the mist nets (representing 65.6% of the total birds) were Least Flycatcher, Yellow Warbler, Clay-colored Sparrow, Swainson's Thrush, and Myrtle Warbler. There were 32 species captured, which was comparable to previous years (Table 1). There were four days that none of the nets could be set due to weather (rain or wind) and seven days that nets were not set due to days off for staff. We started netting May 3 (normally May 1), as staff were at a Bander Training Workshop in Saskatchewan in early May. Our aerial net was damaged last fall, and was not used this spring, and there were quite a few days that the wind increased to above Beaufort 3 which meant shutting down the front nets. This may account for the lower number of net hours.

Table 1. Birds caught in mist nets at Beaverhill Bird Observatory Spring 2005.

Species	Banded	Recap	Foreign	Other	Total
Sharp-shinned Hawk	1	0	0	0	1
Yellow-bellied Sapsucker	1	0	0	0	1
Olive-sided Flycatcher	1	0	0	0	1
Alder Flycatcher	2	0	0	0	2
Traill's Flycatcher	7	0	0	0	7
Least Flycatcher	47	21	0	0	68
Brown-headed Cowbird	0	4	0	1	5
Baltimore Oriole	1	2	0	0	3
American Goldfinch	3	0	0	1	4
White-crowned Sparrow	1	0	0	0	1
White-throated Sparrow	6	0	0	0	6
Chipping Sparrow	1	0	0	0	1
Clay-colored Sparrow	24	3	0	0	27
Song Sparrow	4	1	0	0	5
Lincoln's Sparrow	3	0	0	0	3
Rose-breasted Grosbeak	1	0	0	0	1
Red-eyed Vireo	3	0	0	0	3
Warbling Vireo	3	0	0	0	3
Black-and-White Warbler	1	0	0	0	1
Orange-crowned Warbler	9	0	0	0	9
Tennessee Warbler	1	0	0	0	1
Yellow Warbler	15	32	0	0	47
Myrtle Warbler	19	0	0	0	19
Ovenbird	3	0	0	0	3
American Redstart	1	0	0	0	1
House Wren	8	0	0	0	8
Black-capped Chickadee	1	9	0	0	10
Veery	1	0	0	0	1
Gray-cheeked Thrush	1	0	0	0	1
Swainson's Thrush	20	0	0	0	20
Hermit Thrush	0	2	0	0	2
American Robin	7	3	0	1	11
Total	**196**	**77**	**0**	**3**	**276**

The capture rate and total number of birds captured continued to decline from 2000 to the present (Table 2, Figure 1). There was a notable absence of warbler species this spring, and of most interest is there had not been any Downy or Hairy Woodpeckers seen this spring (which are regulars to the feeders and have been caught on quite a few occasions over the years). An Olive-sided Flycatcher, a species that has not been captured in the past 10 years at the bird observatory, was caught this year!

Table 2. 2005 spring songbird banding results compared to previous five years.

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

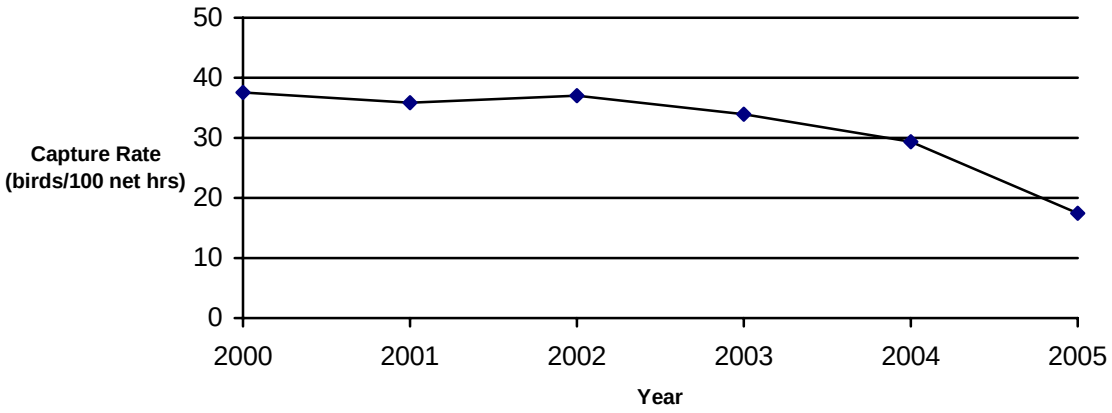

Figure 1. A comparison of capture rates (birds/100 net hours) between 2000 and 2005.

Tree Swallows

We spent 4 different afternoons on the Tree Swallow grid, attempting to catch adults as they built their nests. We caught 27 adults (1 male, 26 females), and banded 14 (13 were already banded in previous years). Most of the nests on the grid are completed and the females are now sitting on eggs. We look forward to banding the young!!

Other Banding

One of the five owl nestboxes was occupied this year again. A Saw-whet Owl took up residence in the box along Weasel Wynd. We caught and banded the female when she was on 4 young. The male was captured using a mist net set in front of the box at night. The male was already banded, last year in the fall, here at our migration site!! Another interesting note is that two other birds banded last fall here at BBO were found in other nestboxes throughout central Alberta.

Other Work

The biggest accomplishment this spring for other work for us was finally getting all the hand painted signs completed for the trails. Unfortunately, last fall we lost five signs to vandalism (pulled out of the ground and burned). This year we plan to leave the signs up until mid fall and then remove them for the late fall and winter seasons.

We also have to mention the new solar system that was installed this year. Al DeGroot and his son-in-law Peter installed the two brand new solar cells and four batteries in the lab. This will bring increased power to the lab to allow us to charge the computer for work and use lights a little more in the fall when banding saw-whets.

Interpretation

Besides the 27 casual visitors, we had two scheduled groups come out to the bird observatory this spring. On June 6, three grade seven classes from Tofield School came out to visit the Natural Area. We presented information on bird banding, monitoring, mist netting, nest boxes, saw-whet owl migration, and hawk and owl fall banding.

Enrique Valdez (BBO board of directors) organized for 13 families from Michener Park (University of Alberta student housing) to be bussed out to the Natural Area and hike in for a picnic dinner at the BBO On June 11. Although the mosquitoes were bad, a few sprays of Muskol cleared things up, and the group learned about the BBO and what we do here. We also heard that they visited the Trefry's farm to see the Peregrine Falcons and Burrowing Owl.

Acknowledgements

We (Sara Majeski and I) had some keen volunteers come out this year, and I would like to thank them for their enthusiasm, considering the low numbers of birds. The volunteers for spring 2005 are (number of days): Chuck Priestley (5), Martina Frey (4), Bruce Morrison (3), Dale Brochu (2), Bryn Spence (1), Juanita Mumby (1), Tawnya Brown (1), Lloyd and Judy Majeski (1), Sarah Buchacher (1), Linda vanderVaart (1). Also, special thanks to Enrique Valdez and his family for volunteering their time to organize for the Michener Park group to come to the bird observatory.

Beaverhill Bird Observatory

Summer Report 2005

Sara Majeski

Introduction

Summer at Beaverhill Bird Observatory is the season for the catchy-acronym (but not so catchy-named) MAPS program, a.k.a. Monitoring Avian Productivity and Survivorship. The MAPS program consists of five rounds of netting and point counts at three stations: WEIR, PARK and BLAB. It runs from June 10 to July 29.

Weather was a major factor in how much of the work we were able to accomplish. "We" refers to Sara Majeski and Lisa Priestley (bander in charge). Due to the abundant thunderstorms we seem to have been plagued with this summer, we missed one round of netting each at PARK and WEIR. Of a possible 900 total net hours, we were able to get 750. Also, 30 net hours were lost at BLAB because we were unable to set up the aerial net for some of the MAPS season.

The wind and rain also caused us to be unable to do some of the point counts. We only completed 8 of the 15. Still, the point counts we were able to do gave us a good indication of the birds that stayed here to breed in the summer, and the results of the point counts are similar to the results of our netting in respect to the most numerous birds heard and caught.

Results

During the MAPS program, a combined total of 249 birds were caught during 750 net hours. The amount of birds caught at each station (PARK, WEIR and BLAB) has been quite stable. The greatest number of birds caught per 100 net hours was 48.5 at BLAB where there was 270 net hours. WEIR had the next highest, with 45.4 birds caught per 100 net hours and 240 net hours in total. PARK had significantly fewer birds caught, with an average of 11.25 birds per 100 net hours, with only about 6 or 7 birds being caught at each netting session and a total of 240 net hours. The overall average was 37.2 birds caught per 100 net hours.

The award for highest species diversity goes to WEIR, though BLAB is still a close second. There were 14 different species caught at WEIR and 12 at BLAB. At PARK, however, there were only 4 different species caught. Least Flycatcher was the caught the most, with 136 birds being netted (55% of the total number of birds). The second highest was the Yellow Warbler (22), followed by House Wren (19), Brown-Headed Cowbird (11) and the Veery (11).

There were some unusual birds caught this season as well. The most outstanding has been the Tennessee Warbler, which was caught at WEIR. It appeared to be breeding here, which is very unusual, as they normally breed in the boreal forest. There were also many of them calling at WEIR. Also at WEIR, a Red-Winged Blackbird was caught. A Red-Eyed Vireo, which appeared to be breeding, was caught at PARK. My favourite of the rare species would have to be the Ruby-Throated Hummingbird, which we caught at BLAB. It was so tiny and pretty.

Table 1 : Total Birds Caught During MAPS in 2005.

Species	# Banded	# Recaptures	# Recoveries	Other Capture	Total Caught
Least Flycatcher	90	25	20	1	136
Yellow Warbler	10	4	8	0	22
House Wren	8	10	1	0	19
Brown-Headed Cowbird	6	3	0	2	11
Veery	8	3	0	0	11
American Robin	8	3	0	0	11
Black-Capped Chickadee	9	0	0	0	9
Hermit Thrush	3	1	0		4
Clay-Coloured Sparrow	4	0	0	0	4
White-Throated Sparrow	2	2	0	0	4
Yellow-Bellied Sapsucker	2	2	0	0	4
Trail's Flycatcher	2	0	0	0	2
Baltimore Oriole	2	0	0	0	2
American Goldfinch	2	0	0	0	2
Downy Woodpecker	1	0	0	0	1
Red-Eyed Vireo	1	0	0	0	1
Warbling Vireo	1	0	0	0	1
Tennessee Warbler	1	0	0	0	1
Ovenbird	1	0	0	0	1
Ruby-Throated Hummigbird	0	0	0	1	1
Red-Winged Blackbird	1	0	0	0	1
Ruffed Grouse	0	0	0	1	1
Total	162	53	29	5	249

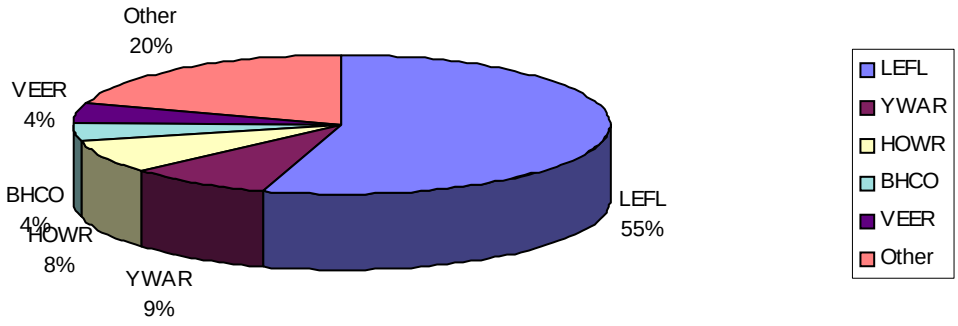

Figure 1: Percent of total captures of the top five species during MAPS 2005.
LEFL – Least Flycatcher, YWAR-Yellow Warbler, HOWR- House Wren, BHCO-Brown-headed Cowbird, VEER- Veery

Table 2 : Number of each species caught at each MAPS location.

Species	BLAB (Total)	WEIR (Total)	PARK (Total)
Downy Woodpecker	1	0	0
Least Flycatcher	59	56	20
Trail's Flycatcher	0	2	0
House Wren	19	0	0
Hermit Thrush	0	4	0
American Robin	7	5	0
Red-Eyed Vireo	0	0	1
Warbling Vireo	0	1	0
Tennessee Warbler	0	1	0
Yellow Warbler	19	3	0
Oven bird	1	0	0
Clay-Coloured Sparrow	4	0	0
White-Throated Sparrow	0	4	0
Brown-Headed Cowbird	5	6	2
Baltimore Oriole	1	1	0
Black-Capped Chickadee	3	6	1
American Goldfinch	0	2	0
Ruby-Throated Hummigbird	1	0	0
Red-Winged Blackbird	0	1	0
Yellow-Bellied Sapsucker	0	0	4
Ruffed Grouse	0	1	0
Veery	11	0	0
TOTAL	131	109	27

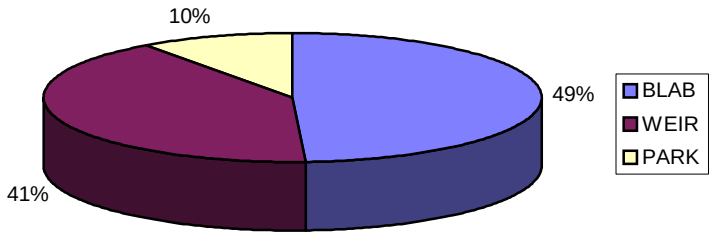

Figure 2: Percent of total captures in each MAPS station in 2005.

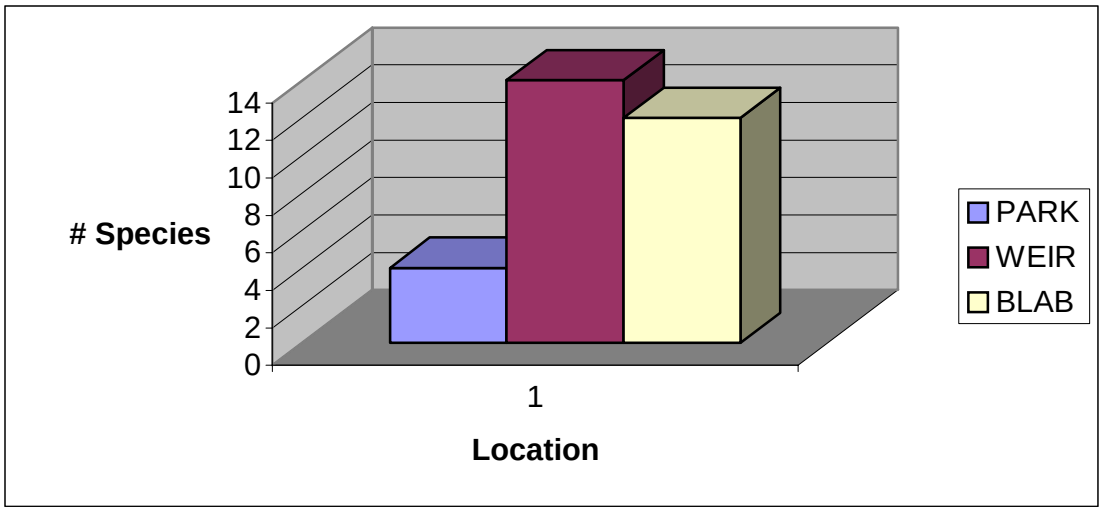

Figure 3: Number of species captured at PARK, WEIR, and BLAB MAPS stations in 2005.

The species heard on point counts this summer show a high correlation with the species that were captured in the nets. Both had Least Flycatchers, Brown-Headed Cowbirds and Yellow Warblers as among the highest heard and captured.

Table 3: The ten most commonly heard birds on point counts.

Species	Total Heard
Least Flycatcher	147
Yellow Warbler	103
Brown-Headed Cowbird	53
American Goldfinch	52
Duck sp.	48
American Robin	27
House Wren	27
Warbling Vireo	25
Hermit Thrush	25
Blue-Winged Teal	24

If the MAPS totals for the past 6 years seem to be following a pattern, it looks like they are on the rise after a drop in 2004. But it's difficult to tell with only 5 years of data (Figure 5). A large factor in determining how many birds are caught each year is the weather. If a certain year has more rain, as they did in 2004, for instance, there will be fewer birds caught due to less banding opportunities. So there would need to be a much larger sample size in order to minimize the effects of weather. But if I had to go out on a limb and make a prediction, I would say that the total numbers are rising, if only due to drier summers (global warming, you rascal!).

Table 4: Species Heard on Point Counts:

American Crow	Savannah Sparrow	Least Flycatcher
American Robin	House Wren	Gull spp.
Pine Siskin	Yellow Warbler	American Redstart
Warbling Vireo	Blue-Winged Teal	Clay-Coloured Sparrow
American Goldfinch	Veery Thrush	Brown-Headed Cowbird
Red-Eyed Vireo	Wilson's Snipe	Hermit Thrush
Tennessee Warbler	Black-Capped Chickadee	Duck spp.
American Bittern	Common Raven	Yellow-Headed Blackbird
Sora	Pied-Billed Grebe	Marbled Godwit
Ovenbird	Baltimore Oriole	Song Sparrow
Killdeer	Tree Swallow	Great Blue Heron
American Coot	Mallard	Alder Flycatcher
Ring-Billed Gull	Solitary Sandpiper	Brewer's Blackbird
Red-Breasted Grosbeak	Franklin's Gull	White-Throated Sparrow
Cedar Waxwing	Red-Winged Blackbird	Lesser Yellowlegs
Philadelphia Vireo	Woodpecker sp.	Yellow-Bellied Sapsucker
Ruby-Throated Hummingbird	Ruffed Grouse	

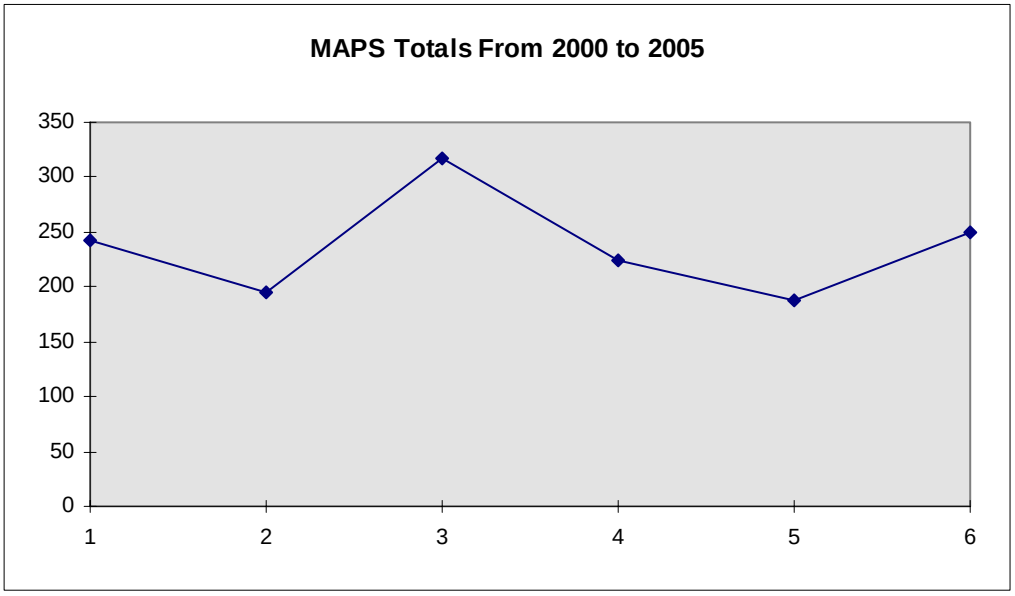

Figure 4: Number of birds heard during MAPS 200 to 2005.
1=2000; 2=2001; 3=2002; 4=2003; 5=2004; 6=2005

Nest Searching and Nest-Side Banding

Nest searching this season has not been terribly successful, but there have been a few nests found, mostly of the Least Flycatcher variety. There were 2 Swainson's Hawk nests and two Great Horned Owl nests outside the natural area, as well as all the nests in the nest boxes. These include the swallow grid, as well as House Wren nests around the lab and bunkhouse area and the bluebird boxes.

The bluebird boxes are home to many things beside bluebirds. House Sparrows and Tree Swallows can be found in the boxes as well, along with the occasional mouse. When Lisa and I went to band the young Mountain Bluebirds, we found many of them were just about ready to fledge and we had arrived just in time. We banded 17 bluebirds that afternoon.

Extensive work was done on the Tree Swallows as well. We started in the spring by banding adults and observing the nests-in-progress. We counted eggs and made records of how many were laid by each mama bird. Each nest had about 6 or 7 eggs in it. While checking nests one day, we found a swallow exhibiting some behaviour that was pretty, strange. In a nest box, an adult male swallow had died, along with 6 eggs. Apparently after that swallow died, a new couple felt that the nest box was a good place to make a home, so they built their nest and laid eggs *over the dead one*. That was a weird discovery for us. We banded almost all of the baby swallows this summer. Most of the banding was done in two trips to the grid, assisted on June 28th by volunteer Lyndsay Boyko. A few of the swallows fledged and managed to escape us, but we were still able to band 195 young.

Acknowledgements

We would like to thank Chuck Priestley for helping us with point counts and netting and for very bravely returning here (safety glasses in tow) after being stung in the eye by a vicious and mean-spirited hornet. Also, many thanks to my pal Lyndsay Boyko for enduring all the poop to help us band the baby swallows. As well, we would like to thank Tyler Flockhart for magically being present to help Lisa with the BLAB banding when she showed up on a day off and Gill Priestley for her help with the bluebirds.

Special thanks go to the authors John Grisham, Yann Martel, Jane Austen, Alice Munro, Christopher Moore, Oscar Wilde and Peter Pyle for giving us something to do between net checks. As well, thank you to Buttons the dog for her enthusiastic and sometimes acrobatic attempts to catch flying birds and for the very amusing way she plays fetch with herself and to Frank the fish for having such pretty colours to look at.

Beaverhill Bird Observatory
Fall Report 2005

by

Lisa Priestley

November 2005

Songbird Fall Migration Monitoring

Fall migration at Beaverhill Bird Observatory in 2005 presented some encouraging results. After consistently lower capture rates over the past years, we had an increase in the capture rate of birds. There were 1256 birds captured (45.1 birds/100 net hours), with 1089 birds banded (Tables 1 and 2). Net hours were considerably lower due to poor weather on 11 days and due to only one staff person being on site for the entire month of September. Monitoring began on August 1 and was completed on October 6. Diversity remained consistent with 59 species being banded. The top five species captured were: Least Flycatcher (232), Myrtle Warbler (196), Black-capped Chickadee (126), Yellow Warbler (98), and Tennessee Warbler (87).

Blue-headed Vireo (photo by Paul Burwell)

Table 1. 2005 fall songbird banding results compared to previous five years.

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

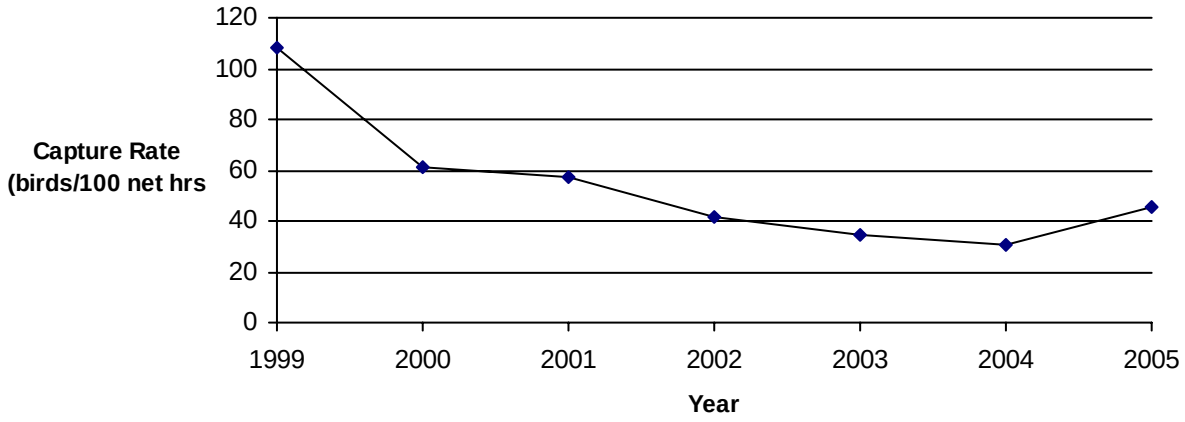

Figure 1. A comparison of capture rates (birds/100 net hours) between 1999 and 2005.

Highlights included: 5 thrush species being captured, a Brown Creeper, three Black-throated Green Warblers, a White-breasted Nuthatch, an Oregon Junco, and two Sharp-shinned Hawks. Unfortunately, no Winter Wrens were caught this fall (which is my favourite bird).

Table 2. Birds caught in mist nets at Beaverhill Bird Observatory fall 2005.

Species	Banded	Recaptured	Foreign	Other	TOTAL

			Recovery		
Sharp-shinned Hawk	2	0	0	0	2
Ruby-thr. Hummingbird	0	0	0	1	1
Hairy Woodpecker	2	1	0	0	2
Downy Woodpecker	5	3	0	0	8
Yellow-bellied Sapsucker	2	1	0	0	3
Western Wood-peewee	1	0	0	0	1
Yellow-bellied Flycatcher	3	0	0	0	3
Alder Flycatcher	1	0	0	0	1
Trail's Flycatcher	22	0	0	0	22
Least Flycatcher	206	25	0	1	232
House Wren	5	2	0	2	9
Brown Creeper	1	0	0	0	1
White-breasted Nuthatch	1	0	0	0	1
Red-breasted Nuthatch	1	0	0	0	1
Black-capped Chickadee	53	71	0	2	126
Golden-crowned Kinglet	3	0	0	0	3
Ruby-crowned Kinglet	20	1	0	0	21
Veery	0	1	0	0	1
Gray-cheeked Thrush	1	0	0	0	1
Swainson's Thrush	11	0	0	0	11
Hermit Thrush	11	2	0	0	13
American Robin	3	3	0	2	8
Cedar Waxwing	7	2	0	0	9
Red-eyed Vireo	4	0	0	0	4
Philadelphia Vireo	3	3	0	0	6
Warbling Vireo	7	0	0	0	7
Blue-headed Vireo	1	0	0	0	1
Black-and-White Warbler	7	0	0	0	7
Orange-crowned Warbler	43	1	0	0	44
Tennessee Warbler	83	4	0	0	87
Cape May Warbler	1	0	0	0	1
Yellow Warbler	84	13	0	1	98
Myrtle Warbler	189	5	0	2	196
Magnolia Warbler	26	0	0	1	27
Black-thr. Green Warbler	3	0	0	0	3
Bay-breasted Warbler	2	0	0	0	2
Blackpoll Warbler	24	0	0	0	24
Western Palm Warbler	4	0	0	0	4
Ovenbird	30	2	0	0	32
Northern Waterthrush	13	2	0	0	15
Mourning Warbler	2	0	0	0	2
Common Yellowthroat	3	0	0	0	3
Wilson's Warbler	23	0	0	0	23
Canada Warbler	2	0	0	0	2
American Redstart	58	4	0	0	62
Warbler sp.	0	0	0	1	1
Western Tanager	1	0	0	0	1
Rose-breasted Grosbeak	5	0	0	0	5
Savannah Sparrow	2	0	0	0	2
White-throated Sparrow	6	1	0	0	7
American Tree Sparrow	28	0	0	0	28
Chipping Sparrow	1	0	0	0	1
Clay-colored Sparrow	18	0	0	0	18
Song Sparrow	13	0	0	0	13
Lincoln's Sparrow	5	0	0	0	5
Fox Sparrow	1	0	0	1	2
Oregon Junco	1	0	0	0	1
Slate-colored Junco	27	5	0	0	32
Purple Finch	3	0	0	0	3
Brown-headed Cowbird	1	0	0	0	1
American Goldfinch	5	1	0	0	6
TOTAL	**1089**	**153**	**1**	**14**	**1256**

Raptor Traps

Volunteer Martina Frey holds a Great Horned Owl

The raptor traps (1 Swedish Goshawk trap and 2 Drop-lid traps) were set up on August 30. We lost one pigeon to a weasel, and one pigeon escaped (interestingly it flew back to Sherwood Park where we had obtained it). The traps were open on 12 days for a total of 383.25 traps hours. One Northern Goshawk (September 4), one Great Horned Owl (September 18), and three Black-billed Magpies (September 6, 19, 21) were captured. It was definitely a slow year for birds of prey. During census we rarely recorded more than a few hawks circling the fields north of the lab. Last year, we had huge numbers of Red-tailed Hawks recorded.

Saw-whet Owl Migration

Northern Saw-whet Owl fall migration monitoring began on September 1 and was completed on November 5. A total of 37 days were covered amounting to 598 net hours. We caught 135 saw-whet owls (0.23 owls/net hour). For more information see the Northern Saw-whet Owl Migration final report.

Other Work

A new educational kiosk is being built at the entrance to the Beaverhill Lake Natural Area. The kiosk will replace the old sign that has been at the front gate for over 20 years. There will be a map of the trails, information on the Natural Area and Beaverhill Bird Observatory.

Interpretation

We participated in the Alberta Centennial celebration 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, 17 people for a City of Edmonton tour, and 14 people from the Alberta Student Chapter of the Wildlife Society. There were also many casual visitors to the Natural Area, and 15 signed in at the bird observatory.

Of course, the highlight of the fall interpretation events was the annual Steaks and Saw-whets barbeque. There were 55 and 51 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.

Acknowledgements

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Alberta Conservation Association
Alberta Sport, Recreation, Parks, and Wildlife Foundation
Alberta Sustainable Resource Development
Environment Canada, Canadian Wildlife Service
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): Jim, Barb, and Calvin Beck (1), Lisa Best (1), Gerry and Robyn Beyersbergen (1), Martina Frey (12), Kelly Horton (2), Allicia Kelly (4), Tracey Lanson (2), Hedwig Marenholtz (1), Juanita Mumby (1), Cory Olsen (8), Chuck Priestley (23), Gill Priestley (3), Peter Stahl (2), Ian Tichkowsky (1), Tim VanDam (1), Kerry Weston (2). Further I need to thank all the volunteers that helped out for the Steaks and Saw-whets event: Jim, Barb, and Calvin Beck, Martina Frey, Sara Majeski and family, Margaret and Josef Takats, Enrique Valdez.