# Beaverhill Bird Observatory



## **2001 Annual Report**

Richard Krikun January, 2002

Beaverhill Bird Observatory PO Box 1418 Edmonton, Alberta, Canada T5J 2N5

#### Abstract

The Beaverhill Bird Observatory opened on May 1<sup>st</sup> and closed on September 30<sup>th</sup>. Spring migration monitoring started on May 1<sup>st</sup> and ended June 10<sup>th</sup>. The Monitoring Avian Productivity and Survivorship (MAPS) program ran from June 11<sup>th</sup> until July 31<sup>st</sup>. Finally, fall migration monitoring occurred for the remainder of the banding season (August 1<sup>st</sup> to September 30<sup>th</sup>). A total of 2919 from 60 species where captured in mist nets throughout the season during banding. 72 occupied nests (26 natural and 46 boxes) from 7 species were found during the summer. During nest banding, a total of 199 nestlings were banded Tree Swallows (with 192 banded). Raptor monitoring began on August 1<sup>st</sup> with the setting of the raptor traps. 8 traps were set (2 Swedish Goshawk traps and 6 Drop-lid traps) using Japanese Quail as lures. The traps were closed with only a single Black-billed Magpie captured. Highly disappointing, compared to the 19 raptors captured in 2000. Northern Saw-whet Owl fall migration monitoring ran again for the second year. Using an audio lure and mist nets 9 Saw-whets were caught on 7 tries before September 30<sup>th</sup>. Non-banding activities included the annual butterfly count, a few construction activities around the lab, and numerous interpretation events. This year was tight because of only two staff were hired for the summer. Many thanks to the 21 volunteers who came to the lab to help out. With the assistance of the hard working Board of Directors, staff, and the volunteers, 2001 became a successful banding year.

#### ACKNOWLEDGMENTS

We would like to first thank the following funding agencies who make this research possible with their generous grants and support: Canadian Wildlife Service (Environment Canada), Student Career Placement Program, Student Temporary Employment Program, Alberta Conservation Association, TD/Canada Trust Friends of the Environment Fund, and Alberta Sustainable Resource Development. Much thanks to Troy Pretzlaw who worked with me throughout the field season.

The Beaverhill Bird Observatory (BBO) is a non-profit organization and as such, relies on many volunteers to help with all aspects of work being conducted. Special thanks to all the volunteers who spent time at the observatory, especially: Tanya Hope, Akiko Sasaki, Mai-Linh Huynh, Tyler Flockhart, Mark Benson, Sarah Trefry, Amy Trefry, Janos Kovacs, Juanita, Jim & Barb Beck, Matt Mimph, Samantha Misgrave, Mira Snyder, Paul McGowen, and Carole & Paul Newton. These people regularly and tirelessly devoted their time and energy in support of the BBO. Finally, I would like to acknowledge the BBO committee who has continued to work together to make the 2001 year at the observatory a success: Lisa Takats, Chuck Priestley, Geoff Holroyd, Margaret Takats, Elson Olorenshaw, Jason Duxbury, Al DeGroot, Bryn Spence, Jim Nichols, and David Weir.



Friends of the BBO, Crepe Breakfast 2001 (photo by Lisa Takats)

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#### **Publications**

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- Interpretation and Education for Beaverhill Bird Observatory (Annual Report 2001-2000) Lisa Takats Priestley
- Saw-whet Owl Migration at Beaverhill Lake 1997, 2000, 2001 Lisa Priestley and Chuck Priestley

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• Appendix A: 2001 Beaverhill Bird Observatory Sight Records - Richard Krikun

#### Message From the Chair - Lisa Takats Priestley

The 2001 season was a tough one. Funding was limited and a pile of work needed to be done. The songbird monitoring continued with migration monitoring, MAPS, and Tree Swallows, along with raptor trapping in the fall, and some Northern Saw-whet Owl migration work (year two pilot).

The Snow Goose Festival was again a successful one, with many volunteers helping with tours (leading and organizing), running the lab, and promoting the bird observatory. The Snow Geese did not disappoint, and tours were booked to capacity. Other species that were seen returning include Northern Harriers, Peregrine Falcons, Cooper's Hawks, Killdeer, Northern Shrikes, Mountain Bluebirds, waterfowl, and of course the "Throne Grouse".

The lab opened officially on May 1 and we brought back Richard Krikun and hired a new bander Troy Pretzlaw. With only two staff at the lab it was a difficult schedule to make. The two staff would cover the entire migration season in the spring and fall with only a few days off, and then would take more days off in the summer during the MAPS program. Chuck Priestley and I would try and cover some days in the summer, when the BBO Boys were on days off.

Spring migration was extremely slow this year and only a few days had over 50 birds in the nets. The first 11 days of banding netted less than 10 birds per day. The diversity of birds remained high at 39 species, with a few rarities: Nashville Warbler, Ruby-crowned Kinglet, Golden-crowned Kinglet, Palm Warbler, and Rose-breasted Grosbeak. On May 25 a Long-eared Owl was captured in the evening in the saw-whet nets!!!

The Crepe Breakfast has become as annual event at the bird observatory and this year Janos Kovacs did not disappoint. His chocolate, strawberry jam and ground nut crepe is my favorite!! We managed to catch a Sharp-shinned Hawk that day which was very exciting for everyone, and the turnout to the event was the highest ever.

The summer was busy with work on MAPS, the pigeon coop, new nest boxes, and Tree Swallow banding. Lister Lake was drying quickly which made for some great finds on walks by the staff. A Moose jaw, some Bison skulls, and a set of Bison horns, history revealing itself. Geoff Holroyd and Sarah Trefry came out to band some Ruby-throated Hummingbirds, and a few Red-tailed Hawk nests were found around the Beaverhill area for climbing and banding the young.

Fall migration had an early start, while MAPS was still being finished a Tennessee and Myrtle Warbler were captured (July 21). August 1<sup>st</sup> signaled the start of fall migration monitoring, and it hit with force as 128 birds were captured. The start of fall was also an exciting time for me personally, as I was engaged to Charles Priestley on August 3<sup>rd</sup>, at Berg Lake near Mount Robson (23 km hike). Migration work continued through September 30, with 2095 birds being captured of 54 species. Rare species included: three Ruby-throated Hummingbirds, a Western Wood-pewee, Black-throated Green Warbler, Nashville Warbler, Brown Creeper, and a new species for the BBO, Black-throated Blue Warbler!!

The drop-lid and goshawk traps were not very successful this fall with only one Black-billed Magpie being captured. The saw-whet owl netting in the evenings was again successful, with nine owls being captured (0.06 owls/net hour). We hope to have funding for full coverage of the fall season next year to get an idea of what is really happening!

In December 2001, I was offered a job with Bird Studies Canada and had to resign from the BBO. I have enjoyed my time as Chair, the whole experience has been wonderful, and I will be continuing to volunteer my time with the organization. Good luck to my husband Chuck Priestley the new Chair of BBO. I would like to thank everyone that I worked with over the past two years, for their hard work, enthusiasm, and friendship. It takes 14 muscles to smile, make me flex.

#### 2001 Banding Season Summary

The Beaverhill Bird Observatory (BBO), located 65 km southeast of Edmonton, within the Beaverhill Lake Natural Area, has completed its 17<sup>th</sup> year of songbird migration monitoring. Only two staff members were hired this year (compared to three in previous years) due to reduced funding. Richard Krikun, our returning head bander, and Troy Pretzlaw ran the banding station with grateful help from volunteers.

The banding totals for 2001 were very similar to 2000, but were down from previous years. This year 2919 birds (representing 60 species) were captured (Table 1). This is compared to the 2517 birds (64 species) captured in 2000 (Priestley, 2001). The banding totals for both 2001 and 2002 are down from the 4,035 birds(68 species) captured in 1999 (Flockhart, 2000).

Although the number of captures were a little higher in 2001 than in 9000, the capture rate (number of birds captured per hundred net hours) are similar. This year 48 birds were captured per hundred net hours compared to 42 in 2000. This is down from the 1999 capture rate of 66 birds per hundred net hours. It appears that the decreased number of captured birds in 2000 and 2001 is because of fewer birds in the area, not because of a decrease in netting effort.

The activities of 2001 were not limited to the migration monitoring of songbirds. We had a very successful year at the swallow grid, where all the young swallows were banded...... The interpretation program was continued by going to various locations for talks (many thanks to the volunteers for doing this), and the annual butterfly count was conducted in August. Fall also saw the continuation of the raptor monitoring with Drop-Lid and Goshawk traps, as well as the Northern Saw-whet Owl monitoring program.

#### **Treasurers Report**

The BBO's finances were handled by our new treasurer, Margaret Takats. The total income received for 2001 was \$30,905.06 (from membership, donations, grants, interest, and sales). Expenses totalled \$38,288.09 (office expenses, supplies, repairs, equipment, dues, education, property taxes, insurance, WCB expense, travel expense, payroll, Burrowing Owl project, and banding conference). Therefor we had a net profit / (loss) of -\$7,383.03.

#### 2001 Banding Season Reports

• Spring Report

Richard Krikun reported on the activities of the spring migration monitoring program this year. The number of birds captured in the nets, species and capture rates, and other capture techniques were summarized. Highlights included the construction of a new pigeon coup, a captured Long-eared Owl, a canoe trip and some crepes. Summer Report

Richard Krikun reported on the Monitoring Avian Productivity and Survivorship (MAPS) Program. A banding summary with comparisons between the three MAPS stations, nest searches, nest banding, a BBQ and capturing some Ruby-throated Hummingbirds are all included.

Fall Report

Richard Krikun also reported on the BBO's fall migration monitoring program. This report included the banding data from daily mist-netting, interpretation events, the annual butterfly count, and raptor monitoring. Within the report, something is mentioned about banding a Black-throated Blue Warbler!

#### Publications

• Willet

Three issues of the Beaverhill Bird Observatory's newsletter, the Willet, were published this year. Volume 14 (1) came out in February and contained the Chair's message, accounts of captured Great Horned Owls by both Charles Priestley and Al De Groot, and an introduction to the Board of Directors. Volume 14 (2) came out in April and contained an article written by Lisa Takats about the Banding Workshop held in February, an article by Bryn Spence about his successful winter of owl call surveys in-Edmonton, and a report on Edgar Jones' banding summary of May 2000. Volume 14 (3) released in October had articles about nest boxes by Al De Groot and Elson Olorenshaw. Al's was about American Kestrel's and Elson's has Mountain Bluebirds in his boxes. It also contains a report by Geoff Holroyd about the possibility of birds carrying Lyme disease into Alberta. Many thanks to Robin Gutsell for a phenomenal job of getting the Willet's out.

• Interpretation and Education for Beaverhill Bird Observatory (Annual Report 2001-2002)

Lisa Priestley wrote the annual report for the major interpretation events carried out by volunteers of the Beaverhill Bird Observatory over the 2001 and 2002 seasons. The `report accounts the 20 events that reached over 4000 people. Presentations ranged in topics from bird banding, to endangered species, to amphibians, to monitoring and research. The main purpose of the presentations is to increase awareness of the BBO, the Natural Area, and the work done by the organization.

• Saw-whet Owl Migration at Beaverhill Lake 1997, 2000, 2001

Lisa and Chuck Priestley summarized the Northern Saw-whet Owl migration monitoring work done at the BBO in 1997, 2000, and 2001. The report contains the methods of monitoring the Saw-whet owl migration and the data obtained in the three years of work.

Species Caught	Number	Species Caught	Number
	Caught		Caught
Sharp-shinned Hawk	2	Black-throated Blue Warbler	I
Ruby-throated Hummingbird	3	Black-and-white Warbler	6
Yellow-shafted Flicker	1	Black-throated Green Warbler	1
Yellow-bellied Sapsucker	2	Bay-breasted Warbler	5
Downy Woodpecker	7	Blackpoll Warbler	23
Hairy Woodpecker	1	Western-palm Warbler	7
Western Wood-Pewee	1	Yellow Warbler	630
Least Flycatcher	554	Mourning Warbler	18
Traill's Flycatcher	52	Connecticut Warbler	2
Unidentified Empidonax sp.	1	Canada Warbler 🐘	10
Blue-headed Vireo	2	Wilson's Warbler	71
Red-eyed Vireo	14	Ovenbird	25
Warbling Vireo	28	Northern Waterthrush	14
Black-capped Chickadee	161	Common Yellowthroat	15
Brown Creeper	1	American Redstart	65
Red-breasted Nuthatch	18	Western Tanager 1	
House Wren	78	American-tree Sparrow 3	
Golden-crowned Kinglet	3	Chipping Sparrow	91
Ruby-crowned Kinglet	30	Clay-colored Sparrow	232
Swainson's Thrush	64	Savannah Sparrow	3
Hermit Thrush	14	Lincoln Sparrow	15
American Robin	6	Song Sparrow	1
Gray Catbird	5	White-throated Sparrow	24
Cedar Waxwing	1	White-crowned Sparrow	6
Tennessee Warbler	168	Slate-colored Junco	14
Orange-crowned Warbler	70	Rose-breasted Grosbeak	4
Nashville Warbler	3	Brown-headed Cowbird	6
Cape May Warbler	3	Baltimore Oriole	4
Magnolia Warbler	23	Purple Finch	3
Myrtle Warbler	294	American Goldfinch	9
		Grand Total	2,919

Table 1: summary of the birds captured at the BBO during the 2001 field season

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11350 - 104 Ave Edmonton Alberta 31 January 2002

#### To the Members of the BEAVERHILL BIRD OBSERVATORY SOCIETY

I have audited the statement of revenue and expenses and the balance sheet of the Beaverhill Bird Observatory Society, Edmonton, Alberta for the year ended 31 December 2001. I have conducted the audit in accordance with generally accepted auditing standards, as set out in the bylaws of the Beaverhill Bird Observatory Society.

In my opinion, the financial statements present fairly, in all material respects, the financial position of the Society as at December 31, 2001 and reflects accurately the financial dealings of the Society during 2001 as recorded in the books of account that were made available to me for the audit.

an E J Olorenshaw - CMA

## **BEAVERHILL BIRD OBSERVATORY SOCIETY**

Box 1418 Edmonton. Alberta T5J 2N5

## **Balance Sheet**

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## As of December 2001

1/15/02 2:16:38 PM

Assets			
Current Assets			
Chequing Account	\$7,629.01		
US cash	\$3,034.51		
Accounts Receivable	\$5,125.00		
Property & Equipment			
Buildings	\$3.604.55		
Donation Boxes	\$541.00		
Computer	\$2,471,43		
Banding Equipment	\$1,100.00		
Display Board	\$527.00		
Refriderator	\$2.009.14		
Solar Panels	\$846.38		
Total Property & Equipment	\$11.090.50		
Total Assets	\$26,879.02		
Liabilities			
exchange	(\$7,190.98)		
Total Liabilities	(\$7,190.98)-		
Equity			
Retained Earnings	\$40,453.03		
Current Year Earnings	(\$7,383.03)		
Historical Balancing	\$1,000.00		
Total Equity	\$34,070.00		
Total Liability & Equity	\$26,879.02		

**BEAVERHILL BIRD OBSERVATORY SOCIETY** 

Box 1418 Edmonton. Alberta T5J 2N5

## **Profit & Loss Statement**

### 13th Period 2001

1/15/02				
2:20:21 PM				
	Selected Period	% of Sales	Year to Date	% of YTD Sales
		·····		
Income				
GRANTS				
Alta Govt - Step	\$0.00	NA	\$3,169.00	10.3%
Canadian Govt SCPP	\$0.00	NA	\$3,304.00	10.7%
Federation of Alberta Naturali	\$0.00	NA	\$1,500.00	4.9%
Baillie Fund	· \$0.00	NA	\$758.95	2.5%
Canada Trust Grant	\$0.00	NA	\$4,000.00	12.9%
Canadian Wildlife Sservices	\$0.00	NA	\$4,000.00	12.9%
ACA	\$0.00	NA	\$3,500.00	11.3%
Alberta Ecotrust	\$0.00	NA	\$6,500.00	21.0%
Total GRANTS	\$0.00	NA	\$26,731.95	86.5%
Membershins	\$0.00	NA	\$410.00	1.3%
Donations	40.00	147.	• • • • • • • •	
General donation	\$0.00	NΔ	\$1 434 01	4.6%
Gate Boy	\$0.00	NΔ	\$6.76	4.070 0.0%
	\$0.00 \$0.00	11/75 N1A	\$70.70 \$70.7 <i>1</i>	0.0%
	\$0.00	19/24 A 1A	\$13.14 \$117.28	0.376
Tetel Denetions	\$0.00 60.00	NA NA	\$112.00 \$1 620.97	U.470 5 39/
Total Donations	\$0.00			3.3%
Interest Operation Relief Fund	\$0.00	ND4	90Z1.09	1.0%
	\$0.00	NA	\$395.80	1.3%
Sales			AAA 47	
Snowgoose Festival	\$0.00	NA	\$93.07	0.3%
Banding Conference	\$0.00	NA	\$107.00	0.3%
Misc Sales	\$0.00	NA	\$1,212.48	3.9%
Total Sales	\$0.00	<u>NA</u>	<u>\$1,412.55</u>	<u> </u>
Total Income	\$0.00	<u>NA</u>	\$30,905.06	100.0%
Cost of Sales				
Gross Profit	\$0.00	NA	\$30,905.06	100.0%
Expenses				
Office Expense				
Mait Box Rental	\$0.00	NA	\$126.26	0.4%
Postana	\$0.00	NΔ	\$20.12	0.1%
Telephone	\$0.00	ΝA	\$502.01	1.6%
Bank Charges	\$0.00	NΔ	\$62.17	0.0%
Miec Office Evnense	\$0.00	NA NA	\$143 35	0.270
Total Office Expense	\$0.00 \$0.00	NA	\$853.86	2.576
Foundiere Expense				2.070
Supplies Density & Matter	\$0.00 \$0.00	INA NA	4304.0Z	J.270
Repairs & Mnice	\$0.00	NA NA	947.30 (COED 00)	U.2%
Bands & Equipment	\$0.00	NA	(\$200.00)	(0.8%)
Dues & Subscriptions	\$0.00	NA	\$20.00	0.1%
Educational Courses	\$0.00	NA	\$66.40	0.2%
Property Taxes	\$0.00	NA	\$71.59	0.2%
Insurance	\$0.00	NA	\$262.03	0.8%
WCB Expense	\$0.00	NA	\$100.00	0.3%
Travel Expense	\$0.00	NA	\$1,550.70	5.0%
Payroli				
Wages	\$0.00	NA	\$21,188.00	68.6%
Contract work done for Beaverh	\$0.00	NA	\$1,000.00	3.2%
Vacation Pay Expense	\$0.00	NA	\$847.52	2.7%
Employer Expenses	\$0.00	NA	\$1,449.92	4.7%
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## **BEAVERHILL BIRD OBSERVATORY SOCIETY**

1/15/02

## **Profit & Loss Statement**

## 13th Period 2001

	Selected Period	% of Sales	Year to Date	% of YTD Sales
Burrowing Ow Project	\$0.00	NA	\$9,774.51	31.6%
Banding Conf expense	<b>\$0</b> .00	NA	\$321.46	1.0%
Total Expenses	\$0.00	<u>NA</u>	\$38,288.09	123.9%
Operating Profit	\$0.00	<u>NA</u>	(\$7,383.03)	<u>(23.9%</u> )
Other Expenses				
Net Profit / (Loss)	\$0.00	<u>NA</u>	(\$7,383.03)	<u>(23.9%</u> )

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Beaverhill Bird Observatory Spring Report-2001



**Richard Krikun** 

#### Introduction

Spring of 2001 turned into a very busy season for the two banders. Troy Pretzlaw and myself, Richard Krikun, at the Beaverhill Bird Observatory. With only two banders this season we had to work extra hard to make sure that the spring migration monitoring was completed. Yet, this gave us a chance to band all the birds, no birds missed because of days off. With the beautiful breeding plumages and unexpected migrant surprises in the nets, we were not complaining. Unfortunately the weather did not cooperate for much of the spring, which greatly reduced the total net hours and the number of captured birds.

#### **Songbird Migration Monitoring**

The spring migration monitoring program began on May 1<sup>st</sup> and ended on June 10<sup>th</sup>. Bird migration was monitored daily using three methods: a census of the birds seen and heard in the study area; casual observations; and banding songbirds captured in mist nets. Banding was conducted using 13 mist nets, set one half hour before sunrise and closed after six hours. Banding does not occur if the wind is over 3 on the Beaufort Scale, if the temperature is above 27°C or below 0°C, or if there is any precipitation.

During the spring migration monitoring, a total of 1755.5 net hours occurred out of a possible 3198. We missed a staggering 1442.5 (45%) net hours because of poor weather conditions. The loss of net hours is apparent in both the number and diversity of bird species captured in the nets. In total, 629 birds (472 banded), representing 39 species, were captured (Table 1). This is down from the 875 birds captured (672 banded) from 47 species during spring migration of 2000 (Priestley 2000). However, the capture rate for 2001 was 35.8 birds captured per 100 net hours in 2000 (Priestley 2000). This indicates that the lower number of birds captured in 2001 was because of lower net hours, not due to fewer birds passing through the area.

Of the 629 birds captured, 472 birds were banded, 70 birds were repeat captures, 59 birds were recovered and 28 birds either escaped from our clutches before they were banded or were released from the nets unbanded (Table 1). Only 39 species were caught, 38 banded, 12 return or recoveries, and 12 species escaped or released unbanded.

Species	Banded	Rept's	Retns/Recv's	Other Captures	Total
Sharp-shinned Hawk	1	· · · · · · · · · · · · · · · · · · ·		A	1
Least Flycatcher	68	14	11	7	100
Traill's Flycatcher	15				15
Red-eyed Vireo	1				1
Warbling Vireo	6	1	1		8
Black-capped Chickadee	1	3	2		6
House Wren	31	15	3	4	53
Golden-crowned Kinglet	1				1
Ruby-crowned Kinglet	2				2
Swainson's Thrush	30			1	31
Hermit Thrush	2				2
American Robin	2				2
Gray Catbird	2			<b>1</b>	2
Tennessee Warbler	8			<b>T</b> .	8
Orange-crowned Warbler	4			1	5
Nashville Warbler	1			1	2
Magnolia Warbler	1				1
Myrtle Warbler	26	2			28
Blackpoll Warbler	6				6
Western-palm Warbler	3		t in the second s		3
Yellow Warbler	31	25	29	2	87
Mourning Warbler	4			1	5
Connecticut Warbler	1				1
Canada Warbler	1				1
Ovenbird	2				2
Northern Waterthrush	2			1	3
Common Yellowthroat	2				2
American Redstart	3				3
Chipping Sparrow	86	1		4	91
Clay-colored Sparrow	84	8	8	4	104
Savannah Sparrow	2		1		3
Lincoln Sparrow	14				14
White-throated Sparrow	16			1	17
White-crowned Sparrow	3				3
Rose-breasted Grosbeak	2				2
Brown-headed Cowbird			2		2
Baltimore Oriole	1	1		1.	3
Purple Finch	3				3
American Goldfinch	4		2		6
,			·		
Total	472	70	59	28	629

Table 1. Species caught and banded during spring migration monitoring

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Net #	Birds	Net Hours	Birds Captured/100 Net
	Captured		Hours
2	22	142.25	15.5
2x	25	142.25	17.6
3	38	142.25	26.7
4	31	142.25	21.8
8	84	122.75	68.4
9	59	122.75	48.1
9x	104	122.75	84.7
12	54	125.25	43.1
40	62	142	43.7
41	20	142	14.1
43	35	142	24.6
43x	36	125	28.8
49	59	142	41.5
Total	629	1755.5	35.8

Table 2. Bird captures and net hours of each net lane

The top five species captured this spring were: Clay-colored Sparrows with 104 captures (16.5%); Least Flycatchers with 100 captures (15.9%); Chipping Sparrows with 91 captures (14.4%), Yellow Warblers with 87 captures (13.8%); and House Wrens with 53 captures (8.4%) (Figure 1). Added all up, the top five species represent 69% of the total captures.



Figure 1: Top 5 species captured during spring migration

The top five species banded this spring migration were: Chipping Sparrows with 86 individuals (18.2%), Clay-colored Sparrows with 84 individuals (17.8%), Least Flycatchers with 68 individuals (14.4%), House Wren and Yellow Warblers were tied with 31 individuals each (6.6%) (Figure 2).





#### **Other Bird Trapping**

Raptor monitoring really begins in the fall, but they are present year round. A Long-eared Owl was seen roosting in an old Black-billed Magpie nest by netlane 49. It eventually moved elsewhere, but continued to call nightly. Not being able to leave an owl unbanded, Chuck Priestley and Lisa Takats caught it in the mist nets on May 25<sup>th</sup>. This was their second attempt at the Long-eared and took two hours to catch.

The Blackbird Trap, with a focus on catching Red-winged Blackbirds, was used again this year to. The trap was set in the grass field between the banding lab and the shore of Beaverhill Lake. The trap was opened for a total of 55 net hours, with no birds captured. The lake had receded so much over the past year that the reeds, where the Redwinged Blackbirds spent most of their time, were too far away, and the trap is very difficult to move.

One of the most exciting banding experiences at the BBO is banding the Tree Swallow boxes at Swallow Grid. We use the "run and cover" method where one sneaks up to a box and at the last moment sprints and blocks the hole preventing escape. During spring migration we focus on catching the adult Tree Swallows as. A total of 22 adult Tree Swallows were captured,13 were banded and 9 were recoveries. An additional 12 adult Tree Swallows were captured (11banded and 1 recovery) outside the Natural Area in the nest boxes along Rowen's Route and at Francis Point.

#### **Other Activities**

The field season is what you make it. Not only do extra activities make the work more fun, but keeps you busy during the slower times.

Troy and I worked on a few projects at the lab this spring. The first project, with the help of Mark Benson and Tanya Hope was to build a wind sock out of an old Metallica banner. The second project was to build a new pigeon coupe. Troy began building a new one out of conduit instead of wood. This project lasted the entire field season, but the new coupe looks good and will last a long time.

Troy brought out his canoe to the lab with the intention to take it onto Beaverhill Lake. Unfortunately we did not make it to the lake, but we did manage to canoe around at the Weir. At the Weir we found a canal system that led into Lister Lake. While in the canals we found a Canada Goose nest and we flushed a Black-crowned Night Heron.

June 10 was the annual Crepe Spectacular with Janos Kovacs as the head chef. In total, 17 people were at the Spectacular to enjoy Janos' mighty fine cooking and participate in banding. Unfortunately I missed the occasion, but I heard that this is the one activity that should be taken in next year.

#### Volunteers

Volunteer activities are extremely important at the BBO. Teaching volunteers about banding not only increases the awareness of the BBO, but also increases awareness of the work being done for the conservation of birds. Plus it is great to watch somebody\_\_\_\_\_\_ hold their first Chickadee. In addition, volunteers make for great company which allowed Troy and myself to tell new people the stories we have told each other twenty times. The following people volunteered at the BBO with their volunteer days in parentheses:

Tanya Hope (6), Lisa Takats (5), Charles Priestley (5), Akiko Sasaki (4), Bryn Spence (3), Mai-Lynh Huynh (3), Tyler Flockhart (2), Mark Benson (2), and Janos Kovacs (1).

#### Acknowledgments

Troy and I would like to thank the Board of Directors for working very hard to keep the BBO up and running during this financially difficult year. Many thanks to Chuck Priestley and Lisa Takats for banding while Troy and myself were on days off. Thanks to Janos Kovacs for cooking the crepes (wish I was there). Beaverhill Bird Observatory Summer Report-2001



**Richard Krikun** 

#### Introduction

Summer 2001 is know fondly to the staff of the BBO, Troy Pretzlaw and myself Richard Krikun, as the season of really bad weather. During the summer program we conducted the MAPS (Monitoring Avian Productivity and Survivorship) program. MAPS consists of five 10 day rotations. Each rotation consists of six hours of banding .as well as point counts at each of the three stations: Weir, Park, and Blab. It was very difficult to complete the work in each rotation due to weather and staffing shortages due to reduced funding this year.

#### Summary of Banding Data

Banding at each station consisted of setting 10 mist nets at sunrise and banding for six hours. This allows for a maximum of 300 net hours for each station during the summer. Poor weather conditions (winds above 3 on the Beaufort Scale, temperatures exceeding 27°C, or any percipitation) and staffing problems allowed for only 247 net hours at the Weir, 254 net hours at Park, and 116 net hours at BLAB (Table 1 and Table 3). A total of 617 net hours were conducted out of a possible 900 net hours for the entire MAPS program.

	Rotation	Rotation	Rotation	Rotation	Rotation	Total Net Hours
	1	2	3	4	5	
Weir	43	54	30	60	60	247
Park	27	54.5	55.5	60	57	254
Blab	56	0	0	0	60	116

#### Table 1: Total net hours at each MAPS station.

Despite the low number of net hours this summer, all three stations did have birds captured during netting. 77 birds were captured at Park (30.3 birds captured per 100 net hours). 73 birds were caught at Weir (29 birds per 100 net hours). Blab caught 45 birds (38 birds per 100 net hours) (Table 2 and Table 3). Because Blab is missing banding information on three rotations, the captures of at each station during each rotation cannot be compared. Blab had the lowest capture rate and the lowest number of birds banded, but, it had the single highest day of both number of birds captured and species captured during the first rotation (Table 2). In total of 195 birds, representing 18 species were captured. 120 (61.5%) were banded, 57 (29.2%) were recaptures, and 18 (9.2%) either escaped or were released unbanded (Table 4).

Table 2: Total number of birds captured (total number of species captured)

	Rotation	Rotation	Rotation	Rotation	Rotation	Total Birds Captured
	1	2	3	4	5	
Weir	13 (4)	15 (4)	8 (4)	11 (5)	26 (8)	73 (12)
Park	10 (4)	21 (5)	15 (2)	17 (3)	14 (2)	77 (7)
Blab	29 (9)	0	0	0	16 (6)	45 (11)

	Birds Captured	Net Hours	Birds Captured /100 Net Hours
Weir	73	247	29.6
Park	77	254	30.3
Blab	45	116	38.8
Total	195	617	31.6

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Table 3: Capture totals for each MAPS station

Table 4: species captured and banded during the MAPS Program

Species	Banded	Rep's	Retn/Rec'v	Other Captures	Total
Least Flycatcher	67	24	15	10	116
Traill's Flycatcher	2				2
Red-eyed Vireo	3		2		5
Warbling Vireo	2			<b>#</b> **	2
Black-capped Chickadee	15	1	1	2	19
House Wren	3	2			5
Swainson's Thrush	4				4
Hermit Thrush	2	1	1		4
American Robin	1				1
Cedar Waxwing	1				1
Tennessee Warbler	3			1	4
Myrtle-Warbler					1
Yellow Warbler	5	3	5	2	15
Ovenbird	2				2
Clay-colored Sparrow	6	1	1	2	10
White-throated Sparrow				1	1
Brown-headed Cowbird	2				2
American Goldfinch	1				1
Total	120	32	25	18	195

The top four species captured are (Figure 1): Least Flycatchers with 116 (59.5%) captured, Black-capped Chickadees with 19 (9.7%) captured, Yellow Warblers with 15 (7.7%) captured, and Clay-colored Sparrows with 10 (5.1%) captured.



Figure 1: Percent of the top 4 species captured

The top four species banded are Least Flycatcher with 67 (55.8%) banded, Blackcapped Chickadee with 15 (12.5%) of the banding, Clay-colored Sparrow with 6 (5%) banded, and Yellow Warbler with 4 (4.2%) banded.



Figure 2: Percent of the top 4 species banded

#### Nests and Nest Banding

During the summer of 2001, we found 72 nests from 7 species (Table 6). Nests can be very difficult to find, it takes a good eye. Because of the Tree Swallow nestbox grid, more Tree Swallow nests were found than other species. One American Robin nest was found on the old bunkhouse, and 2 House Wrens were nesting in boxes around the lab. The Mallard nest was found by a volunteer (Tanya Hope), while sitting on the throne. While inspecting the nests, we found only one Least Flycatcher nest that had Cowbird eggs present.

Species	Number of Nests Found
American Robin	2
Unknown	1
Least Flycatcher	15
Long-eared Owl	1
Yellow Warbler	4
Mallard	1
Tree Swallow	45
House Wren	3
Total	72

Table 5: Results of nest searches

Nestlings were banded from two of the nests that were found (excluding the Swallow Grid nestboxes) (Table 6). One American Robin was banded at the nest on the old bunkhouse. Six House Wrens were banded at the nest box on the lab. At the Swallow Grid, 192 young Tree Swallows were banded. The poor weather for netting at the MAPS stations allowed time for an increased effort at the Grid. All the successful Tree Swallow nests at the Grid had their young banded.

#### Table 6: Nest banding

Species	Species Number of Young Banded	
House Wren	6	
American Robin	1	
Tree Swallow	192	
Total	199	

#### **Other Birding Activities**

Geoff Holroyd and Sarah Trefrey came to the lab on June 24<sup>th</sup> to band Rubythroated Hummingbirds using a Hummingbird Feeder Trap. A female was captured and banded. What a small and delicate bird, it was an impressive sight.

#### Other Activities

We had a barbecue at the Tofield IGA on July 14<sup>th</sup> to increase awareness of the BBO and to make a little money for the organization. Tanya Hope and myself cooked up hamburgers and hot-dogs while we chatted with people. Many people supported us and we made \$100 for the BBO.

There were very few additional activities during the summer. Troy and I had very short weeks (five days on and five days off). This meant that the time spent outside of netting and point counts was spent on data entry and nest searches and nest banding.

#### **Volunteer Activities**

A number of individuals volunteered their time to help with the MAPS program this year. The volunteers, with the number of days volunteer in parentheses, were:

Lisa Takats (5), Chuck Priestley (5), Tanya Hope (5), Sarah Trefry (1), Geoff Holroyd (1), Mai-Linh Huynh (1), Bryn Spence (1), Juanita Mumby (1), and Paul McGowen (1).

#### Acknowledgments

Thanks to the BBO Board of Directors for doing a great job in keeping all the logistics in order. Really big thanks to Chuck and Lisa for coming out so often and helping when we were on days off. Thanks also goes out to all the volunteers mentioned above.

## Beaverhill Bird Observatory Fall Report- 2001



Richard Krikun

#### Introduction

The Fall Migration program at the Beaverhill Bird Observatory was very successful, busy and fun. The staff, Troy Pretzlaw and myself Richard Krikun, had two main objectives, songbird migration monitoring and raptor migration monitoring. The weather conditions improved drastically compared to the spring and summer programs allowing for increased songbird netting. Unfortunately very few raptors were caught this year despite the efforts using drop-lid traps and Swedish goshawk traps. We also had the opportunity this fall to take part in many other activities that added to the enjoyment of this portion of the field season.

#### Songbird Migration Monitoring

Migration monitoring began on August 1<sup>st</sup> and finished September 30<sup>th</sup>. Thirteen mist nets were set up daily beginning one half hour before sunrise and continued for six hours. Banding does not occur if the temperature falls below 0° C or rises above 27°C, if it is raining (or snowing later in September), or if the wind is above 3 on the Beaufort Scale. A daily census route is run in all weather conditions.

In the 61 days of fall monitoring, a total of 3678.5 net hours occurred out of a possible 4758 net hours (Table 1). Poor weather conditions prevented 1079.5 (22.7%) of the possible net hours from occurring. During netting, 2095 birds were captured. This is above the 1740 birds captured during the fall migration monitoring in 2000 (Krikun 2000). However, the capture rate for this year was 56.9 birds captured per 100 net hours (Table 1) is down compared to the 61.2 birds captured per 100 net hours in 2000 (Krikun 2000).

Net	Birds Captured	Net Hours	Birds Captured/100 net	
			hours	
2	32	294.75	10.9	
2X	68	294.75	. 23.1	
.3	36	294.25	12.2	
4	59	294.25	20.1	
8	335	261	128.4	
9	401	261	153.6	
9X	505	261	193.5	
12	159	281	56.6	
40	128	294.75	43.4	
41	53	294.75	18	
43	117	293.5	39.9	
43X	116	258.75	44.8	
49	85	294.75	28.8	
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Total	2095	3678.5	56.9	

#### Table 1: Net captures and capture rates-

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Table 2:	Species	captured	and	banded

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Species	Banded	Rep's	Retn's/Recv's	Other Captures	Total
Sharp-shinned Hawk	1				1
Ruby-throated Hummingbird				3	3
Yellow-shafted Flicker	1				1
Yellow-bellied Sapsucker	2				2
Downy Woodpecker	6			1	7
Hairy Woodpecker	ĩ				
Western Wood-Pewee	1				
Lesst Elycatcher	205	24	3	16	220
Traill's Elycatcher	295	24			25
Haidentified Empidement on	54		1	1	33
Discharge AN	2				
Blue-neaded vireo	2				2
Red-eyed Vireo	6		2		8
Warbling Vireo	16	2	_		18
Black-capped Chickadee	46	81	7	2	136
Brown Creeper	1				1
Red-breasted Nuthatch	18				18
House Wren	18	1		1	20
Golden-crowned Kinglet	2				2
Ruby-crowned Kinglet	27	1		<b>\$</b> -1	28
Swainson's Thrush	29				29
Hermit Thrush	8				8
American Robin	2			1	3
Gray Cathird	2			1	3
Tennessee Warbler	137	17		2	156
Orange grouped Warbler	57	7			65
Nashuille Weshler	57	/		I	60
Nashville wardler	1				
Cape May warbler	2		ļ		
Magnolia Warbler	19	2		l l	22
Myrtle Warbler				3	265
Black-throated Blue Warbler	1				I
Black-and-white Warbler	5		1		6
Black-throated Green Warbler	1				1
Bay-breasted Warbler	5				5
Blackpoll Warbler	14	2		1	17
Western-palm Warbler	4				4
Yellow Warbler	429	59	19	21	528
Mourning Warbler	11	1	1		13
Connecticut Warbler	1				1
Canada Warbler	7	2			9
Wilson's Warbler	64	5		2	71
Ovenhird	19			2	21
Northern Waterthrush	10			1	
Common Vellowthroat	13			*	13
American Redstart	56	2	]	4	62
Western Tenego	1	2		4	
American tree Sector					
American-tree Sparrow	3	2		F	3
Clay-colored Sparrow	109	3	1	5	118
Lincoin Sparrow					
Song Sparrow	1				
White-throated Sparrow	5			1	6
White-crowned Sparrow	2			· 1	3
Slate-colored Junco	12	1		1	14
Rose-breasted Grosbeak	2				2
Brown-headed Cowbird	2		]		2
Baltimore Oriole	1				
American Goldfinch	2				2
Total	1758	230	35	72	2095

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Individual net productivity was quite varied (Table 1). The majority of the captures occurred in the array consisting of nets 8,9, and 9X. Net 9x captured 505 birds, which equals 193.5 birds per 100 net hours, the highest number of captures and capture rate. Net 9 captured 401 birds, equaling 153.6 birds per 100 net hours. Net 8 captured 335 birds, which equals 128.4 birds per 100 net hours. The array captured 59.3% (1241 birds) of all captures. In contrast, net 2 was the lowest producing net with 32 captures (10.9 birds per 100 net hours) and accounted for only 1.4% of the total captures.

56 species represented the 2095 birds captured. 1758 (83.9%) of the captured birds in 2001 were banded, 265 (12.7%) of the birds were recaptured, and 72 (3.4%) of the captured birds either escaped or were released unbanded (Table 2).

The top five species captured were (Figure 1): Yellow Warblers with 528 captures (25.2%), Least Flycatchers with 338 (16.1%) captures, Myrtle Warblers with 265 (12.7%) captures, Tennessee Warblers with 156 (7.4%) captures, and Clay-colored Sparrows with 118 (5.6%) captures. These five species represent 67% of the total captured birds.



Figure 1: Percent of the top five species captured.

The top five species banded were (Figure 2): Yellow Warblers with 429 (24.4%), Least Flycatchers with 295 (16.8%), Myrtle Warblers with 243 (13.8%), Tennessee Warblers with 137 (7.8%), and Clay-colored Sparrows with 109 (6.2%). These 5 species account for 69% of birds banded.

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Figure 2: Percent of top five species banded.

A number of really neat birds were captured during the fall migration period. Like we say, "every day at the BBO is like Christmas". These birds are either considered by professionals as very rare, or by myself as really cool. These birds include: Ruby-throated Hummingbird (3), Brown Creeper (1), Gray Catbird (2). Nashville Warbler (1), Cape May Warbler (2), Black-throated Green Warbler (1), Bay-breasted Warbler (5), and Western Tanager (1).

A new species is now added onto the BBO's list of birds banded. On September 18<sup>th</sup> I caught and banded a young female Black-throated Blue Warbler. It was truly one of the most unbelievable things that had happened to me. Despite taking a long time to figure out what species it was, I finally got it and was truly impressed.

The highest number of birds captured on a single day was128 birds on August 1<sup>st</sup>. Being the first day of fall migration monitoring and after the relatively slow MAPS program, Troy and I were running around like crazy, but we pulled it off.

#### **Raptor Monitoring**

The raptor monitoring program at the BBO this fall was very disappointing. Six drop-lid traps and two Swedish goshawk traps were set for a total of 4745 hours. The only species captured was a Black-billed Magpie. I witnessed a Sharp-shinned Hawk attack the quail in a closed Goshawk Trap and a Great-horned Owl was very interested in a drop-lid trap (it went at it twice, but didn't go in), but you know what they say about horseshoes and hand grenades and all that jazz.

The Northern Saw-whet Owl monitoring was more successful than the raptor monitoring program. An audio lure is placed at the center of two mist nets playing the Saw-whet breeding call. Nine Saw-whets were captured ver a period of 149 net hours.

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#### Activities

August 11<sup>th</sup> was the mighty Miquelon Lake presentation. Troy and I entertained a crowd of 72 people as we presented a day in the life of a bander. We dressed the head interpreter in a bird costume and proceeded to band her. Then we did a walk in the forest. We assigned the audience various bird calls. As we pretended to walk through different habitats we would tell the audience what bird we just heard and then they would give the call. It was a lot of fun, especially for the two big guys we assigned the Yellow Warbler's "sweet sweet, I'm so sweet" call.

On August 12, the annual Beaverhill Lake Butterfly Count commenced. Barb and Jim Beck brought out their grandchildren Calvin and Catherine. With their help along with Rob Hughes and myself we chased down 912 butterflies representing 21 species (Table 3).

Species	# caught	Species	# Caught
Western White	90	Northern Crescent	34
Cabbage White	68	Tawny Crescent	3
White Sp.	151	Satyr Comma	5
Clouded Sulphur	176	Mourning Cloak	3
Orange Sulpher	7	Milbert's Tortoiseshell	2
Colias Sp.	38	Painted Lady	17
Gray Copper	6	Red Admiral	2
Bronze Copper	1	Inornate Ringlet	7
Great Spangled Fritillary	24	Common Wood-Nymph	247
Aphrodite Fritillary	-2	-European Skipper	-11
Mormon Fritillary	1	Common Branded Skipper	1
Speyeria Sp.	21	Peck's Skipper	5

 Table 3: results from the Butterfly Count

September 29<sup>th</sup> was the steak and Saw-whet night. Chuck, Lisa, Bryn, Juanita, Jim and Bim Nichols and myself sat around ate good food and attempted to band Saw-whets. On the final check we did catch a Saw-whet, they are so cute.

Once again the cattle were a problem in the natural area. A lost herd of about 12 cows were trapped in the Natural Area. While they were inside they did some damage too. After they knocked over raptor traps, nets, and actually ripped a net in two, I finally found the owner and it was all taken care of. MMMMM steak.

#### Volunteers

Volunteer activity is very important at the BBO. Teaching people how to band showing them what we are all about is important and lots of fun. The following is a list of volunteers and the numbers of days volunteered in parentheses.

Chuck Priestly (5), Amy Trefry (5), Akiko Sasaki (4), Lisa Takats (4), Bryn Spence (2), Matt Timph (2), Barb Beck (1), Jim Beck(1), Samantha Musgrave (1), Tyler Flockhart (1), Mira Snyder (1), Sarah Trefry (1), Elson Olorenshaw (1), Juanita (1), Geoff Holroyd (1), Paul Mcgowen (1).

#### Acknowledgments

Troy and I would like to thank the following people who put in a lot of effort to help with the BBO activities and made the fall 2001 very successful and lots of fun. First we would like to thank the BBO Board of Directors. Thanks to Janos Kovacs, Barb Beck, Petra Rowell, and Rainer Eble for lending bands during the band shortage crisis. Jim and Barb Beck for helping with the Butterfly count. Finally, thanks to the Trefry's for supplying domestic quail for the raptor traps.



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February 2001

Chair's Message 2001 by Lisa Takats

My name is Lisa Takats, I have been appointed the new Chair of the Beaverhil Bird Observatory (BBO) Committee. For two years I was the Vice Chair of the BBO, and I was the



editor of the Willet newsletter before that. I have been directly involved with the BBO for five years. I also coordinate the Alberta Raptor Monitoring Program.

Some of my background: I received my BSc. from the University of Alberta in Biological Sciences, and my MSc. in Wildlife Ecology and Management through the Renewable Resources Department at the U of A. I studied the ecology of Barred Owls for my thesis. For the past four years, I have been working for the Alberta Conservation Association as the coordinator of the Alberta Amphibian and Reptile Monitoring Program. I am also the editor of the Nature Network Newsletter for the Edmonton Natural History Club and Edmonton Bird Club.

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#### Chair's Message 2001 (Cont.)

As you can see, I tend to be involved in a variety of different organizations and work with many different species of animals.

As the Chair for BBO, I am excited to bring our organization into the new Millenium. We have many new members on our board and have managed to keep other board members on in new roles (see article on board members). I am thrilled at the new and exciting programs the BBO is becoming involved with:

-Raptor Monitoring (migration and nesting)

-Urban Northern Saw-whet Owl Project

-Amphibian Monitoring

-Invertebrate Surveys (butterflies and dragonflies)

-Cooperative exchanges with other research groups

As well, we continue to be part of the Canadian Migration Monitoring Network, collecting information of migrating songbirds. Our goals over the following years are to increase BBO's exposure through a variety of ways:

- 1) attending conferences and meetings in Alberta, Canada, and elsewhere to promote and report on our work,
- 2) increasing our volunteer help with training and workshops for students, naturalists, and other interested people,
- presenting educational talks to schools, parks, natural history groups, to increase awareness about the BBO,
- 4) printing informative materials that can be picked up or distributed to increase our membership,
- 5) placing signage in the natural area to increase public awareness about the unique habitats of the Beaverhill Lake Natural Area and its associated wildlife, and to provide information on the Bird Observatory.

I encourage all who are interested in learning more about the BBO to attend the Bird Banding Workshop February 16-18, 2001. This is a great opportunity to hear about various banding work going on throughout the province and even from other provinces and states. This workshop is a relaxed environment and is targeted at a general audience (see advertisement in this issue of Willet).

I look forward to this year's upcoming activities (Crepe Breakfast, Butterfly Count, banding, birdwatching, hiking, marsh walking, etc.) and hope to see you out at the lab!!!!

#### Bringing in the New Year, Montana style!

#### by Tyler Flockhart

It seems unlikely that driving to Montana, which is not too much different from Alberta, would allows us

to observe great numbers of raptors, some commonly only send during the summer. Yet, Lisa Takats and myself gave up all the hype of everyone's New Years parties to have our own, we named it "raptorfest". As everyone was clinking glasses and making resolutions as to what the next year would bring, we were counting birds and hoping to catch a few to band as well. Our guide was Denver Holt, president of the Owl Research Institute (ORI) in the Flathead Valley of Montana, and the guest speaker at the Beaverhill



Denver Holt with Red-tailed Hawk

Bird Observatory's bird banding conference in 2000.Over the course of a few days, we observed many different species of raptors that are hard enough to identify at times, yet when you add all the different morphs into the equation, suddenly it gets a whole lot trickier. During one morning drive, we counted an astonishing 95 raptors in about 30 miles of road. This included such species as Rough-legged Hawk (light, intermediate, and dark morphs), Red-tailed Hawk (western race, eastern race, Harlan's race, intermediate rufous, and dark intermediate rufous morphs), Bald Eagle (juvenile and adult), Golden Eagle, Loggerhead Shrike, Great Horned Owl, Northern Harrier, and Prairie Falcon. Other species observed by our party during our 3-day stay included Long-eared owl, Short-eared Owl, Northern Goshawk and American Kestrel.



Rough-legged Hawk

Of course, when raptor banders see a lot of raptors, they also have an itch to band a few, and so we soothed the itch. We attempted to catch many Rough-legged hawks, however, we soon discovered that they did not take well to our trap, not wanting to land on it but rather just take their prey on the wing. So we switched our efforts to smaller birds of prey like the Kestrels and Shrikes. We attempted to catch one shrike, and with little difficulty we captured it. A word of warning to those who have yet to handle a shrike, beware. Their common trick is to "grip it, and rip it" - your skin that is. From my personal experience, these guys can make you bleed. Since shrikes we not too abundant, we searched for more Kestrels to try our potter trap on. These small birds were caught fairly easily and came right in; often we would be sitting in the truck only meters away when they became caught. In total we captured 3 American Kestrels, all of them males. A highlight of the trip was helping Denver search many of the Long-

eared Owl roosts that in years previous have help up to 60 birds. This year, we only found one or two in a roost at a time, yet still we were fortunate enough to catch one. We banded an adult female. The catch of the trip was also the easiest. A Harlan's hawk had been seen near the ORI and Denver wanted to try it, so we did, and the results were fantastic. The bird came in and got caught on the trap in classic fashion. We banded this adult bird and were impressed with how dark they really were and also to get a good look at the tail, a key to help identify this species.

Personally, I can't think of a better way to spend a News Years celebration than to observe hundreds of raptors and band a few as well. There are talks of an annual raptor census occurring at the ORI to determine yearly fluctuations in the numbers and species composition. If you love raptors, try Montana, they seem to have lots to share.

#### Said and Done, Another Goal is Realized!!

by Charles Priestley

Four years ago it started. The feud raged on, both sides moved forward each with their own goal in mind. Every night she was out at the BBO his, 'who's awake, me too' call, further motivated her. However, last fall Lisa Takats was smiling because the battle was finally over. As a consequence, another owl wears a band and our research has been furthered.

The Great Horned Owl that hangs around the Beaverhill Lake Natural Area has been successful at avoiding being caught by



A usual sight most evenings, the Great Horned Owl's perching site is located near the entrance to the Beaverhill Natural Area

drop-lid traps. Unbeknownst to the owl however, last year a new trapping method would be employed. Swedish Goshawk traps were built by summer staff and one was strategically placed in close proximity to the owl's perching site. Please see "Two Trapping Techniques for Monitoring Migrating Raptors" (Page 5).

One morning in September I received a phone call. It was a bizarre time to receive a call so I knew that it regarded something very important. I could hear Richard Krikun shaking with excitement on the other end of the phone when he relayed the fantastic news, "we finally got the Great Horned," he said. About two seconds after I hung up the phone it rang again. This time it was Lisa "I'll be there in a couple of minutes to pick you up" she said excitedly.

We couldn't get out to the BBO fast enough. Luckily, we did manage to avoid photo radar that morning.



The Great Horned Owl is finally banded!

On our way out to the BBO we spotted a Great Horned sitting in a tree beside the highway. We smiled as we drove by, because it foretold what would be waiting for us at the lab when we arrived.

"Do you know how long I've been waiting for this" Lisa kept saying over and over. "It's been four years you know". I looked out the window and smiled for I knew that her efforts had been rewarded. She said that she would capture and band that bird and here we were, doing just that.

Richard awaited our arrival at the BBO. When we got there, he came out the lab with a huge grin on his face. The bird took a size 8 band and we determined that it was an after-third-year male. He was beautiful!

I love the BBO and the research that I have had the opportunity to be a part of. I feel very fortunate because these last couple of years I have been able to meet the many of the hard working people that make the BBO what it is. Why is the BBO so successful? That question has a simple answer. The answer is the people. We have a devoted group of people that have the fortune of being able to dream and the skill of being able to do what it takes to realize those dreams.

#### **Old Friends, Owl Friends**

#### by Al De Groot

On January 29, 1999 I managed to capture a Great Horned Owl on the 1/4 section east of my place. There was no molt pattern on the wing feathers so the bird hatched in the summer of '98. I also assumed the bird was a female because of the large footpad measurement at 86mm. They are always larger in the feet than males. A year later on January 31, 2000 I captured another Great Horned Owl on the same 1/4 section. It turned out to be the same bird I had banded a year earlier. She had run into some trouble in that time as the first three primaries on the left wing were damaged. The central shaft of the first feather was twisted like a corkscrew and didn't lay flush with the other wing feathers. The next two primaries had been dropped and replaced with new feathers only three inches long. The original band on the left leg was also damaged. It was flattened and tight against the leg. This band was removed and a new band placed on the other leg before the bird was released. January 21, 2001, on the same 1/4 section I recaptured the same owl for a third time. The corkscrewed primary feather on the left wing had dropped and she had grown a new one. This feather was also about three inches long, matching the two short ones next to it. The damage to these wing feathers does not seem to effect her hunting ability as she has managed to survive at least a year with this condition. It also seems she is a resident bird in the area and I may have banded her young in a nest <sup>1</sup>/<sub>2</sub>-mile north of where she was captured. Hopefully, I'll be able to meet her again next January.

#### Two Trapping Techniques for Monitoring Migrating Raptors

by Charles Priestley

Last year three trapping techniques were used to catch raptors as part of the fall raptor migration monitoring program at the BBO. Drop-lid traps and Swedish Goshawk traps were both used from September until October with great success. In addition, mist nets were also used some evenings in an attempt to catch Northern Sawwhet Owls. The main goal of this paper is to compare the drop-lid and Goshawk traps.





A Merlin perches on a drop-lid trap. Unfortunately this trap is not set.

raptor cage. When these traps are set, a lure animal (domesticated Japanese Quail, Rock Dove, House Sparrow or laboratory mouse) is in the bottom compartment and the top of the cage is open so that a raptor can enter in pursuit of the lure animal below. There are some distinct differences between the two trapping techniques. These differences appear to effect which species are caught by the traps.

Firstly, the way raptors are caught in each of the traps differs somewhat. Drop-lid traps have one door that is held up by a lever. A raptor has to enter the cage in direct pursuit of the lure animal to trigger the door (the raptor can perch on the door or the edge of the trap, that is one of the reasons we tightened the



A Swedish Goshawk trap was out at the Swallow grid.

triggers). Conversely, there are two ways that raptors can become trapped in Goshawk traps. Goshawk traps have two spring-loaded doors that are held open by a 'dummy perch' (a bar that is hinged in the middle). Raptors could fly into the cage in direct pursuit of the lure animal, as in the droplids, or, they could land on the 'dummy perch' between the two doors and thus fall into the cage when the perch collapses.

Secondly, the two types of traps have a large size difference. The top compartments of the Goshawk traps are about twice the size of drop-lids.

The Goshawk traps have a more open appearance on top because of their large size for this reason, could be preferred by larger species or species that are shy of the more confining drop-lid traps.

Lastly, the angles in which the doors are held open probably plays a role in the different capture success rates of the two trap types. Drop-lid doors are held at about a 60-degree angle when set while the Goshawk trap doors are held at a 90-degree angle when set. The angle of the doors will affect the angle in which raptors can enter the traps.

It is important to recognize that both types of traps were successful, however, some species tended to show specific trap preference. Therefore, to continue monitoring raptor migration successfully I suggest continued use of both trapping techniques in the future.

#### **Beaverhill Bird Observatory Board Members Introduce Themselves**

#### <u>Chair</u>

Lisa Takats: I am an avid wildlife enthusiast, and enjoy spending time volunteering for various natural history organizations. I volunteered at the BBO banding station for a few years, and joined the board in 1996 as the Editor of the Willet. Work for the Alberta Conservation Association on a joint project with Alberta Environment on amphibian and reptile monitoring for the province keeps me pretty busy, however, I enjoy being outdoors, and spend much of time hiking and skiing to view wildlife. "Birds of Prey Know They're Cool" is my motto.
### Vice-Chair

*Charles Priestley*: I am an Environmental Conservation Science student at the University of Alberta. I have always enjoyed nature and have always had the desire to somehow help facilitate its protection. My free time is usually spent in the pursuit of wildlife experiences, which can range from simply hiking through a park to catching and banding raptors.

### **Treasurer**

*Margaret Takats*: It is due to my daughter Lisa Takats that I have become involved with the BBO. My professional training is in both teaching and in later years accounting. Over the last 25 years I have been involved in many volunteer positions including a treasurer position for the community hockey program in my area. Presently I am a volunteer for the Tax Volunteer Program, which operates out of Canada Place.

### Secretary

*Geoff Holroyd*: Works for the Canadian Wildlife Service as a Research Scientist. Geoff has been involved with the BBO since the beginning, and served in a number of different roles. He is an adjunct professor at the University of Alberta Department of Renewable Resources, where he supervises students working on various raptor related project. Burrowing Owls and Peregrines are his passion.

### Editor

*Robin Gutsell*: I am an avid birder, one who particularly likes small songbirds (a rare species around here!?). I have volunteered for a couple of other bird observatories in North America, and have done volunteer ornithological work in Australia as well. Travel, birds, and magnificent vistas are what keep me getting out. In my day job, I work as a Species at Risk Biologist for Alberta Environment.

### Past Chair

Jason Duxbury: PhD Candidate at the University of Alberta, studying the stable isotope ecology of birds of prey. I have volunteered as a member of the BBO's board of directors since 1994 and was Chair from 1996-2000. I started my ornithological career with the BBO working at the banding lab in 1992 and 1993, and helped set up the Lesser Slave Lake Bird Observatory in 1995. What would life be without birds?

### **Directors**

*Elson Olorenshaw*: I am a retired accountant and my main hobby is interacting with wildlife. I build birdhouses and have a Mountain Bluebird/ Tree Swallow trail east of Edmonton - have 350 houses and I banded 440 bluebirds in 2000. Be glad to build you a birdhouse! I accompany and assist?? raptor banders on occasion!

Al DeGroot: Dislikes paper work immensely, but will do almost anything as far as field work at the lab goes. Just ask. (Al has been a board member of BBO for many years).

Jim Nichols: I have spent a number of decades enjoying the challenges of the outdoors, from camping in a brush lean to at -48F to the hot Summers of Southern Ontario. I have been connected with Boy Scouts for most of my life and when leading Cubs and Scouts on outdoor excursions I wanted to be able to say more than "That's a yellow bird". Therefore I decided to become more knowledgeable about the birds we see, now I can say, "That's a Yellow Warbler", neat eh?

*Bryn Spence*: I am an education student at Grant MacEwan. However, a good portion of my time spent looking at owls. I enjoy nature and everything that goes along with it, like cold, mosquitoes and rain.

*David Weir*: I have a strong interest in nature and the outdoors, which I demonstrate through several hobbies including photography and sculpture. I joined the BBO and its executive to learn more about the environment and get involved in its stewardship.

### Volunteer Coordinator

*Tyler Flockhart*: I worked at the bird observatory for the past two glorious summers conducting bird research. I have only recently come to discover my love of avifauna and hope to continue my education through completion of a masters thesis. My greatest love comes from raptors, and I spend much of my free time observing, banding and photographing them.

### Websites of Interest

http://www.mb.ec.gc.ca/ENGLISH/LIFE/ENDSPECIES/pfalcon.html

The Prairie and Northern Region's Peregrine Falcon Home Page tracks the amazing journey of Peregrine Falcons in the wild as they travel their annual migration routes across the North American continent.

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Lesser Slave Lake Bird Observatory P.O. Box 730, Slave Lake, Alberta, T0G 2A0 - Chairperson-Marion Whitby (369-3581)

### NEXT WILLET ISSUE

Material for the forthcoming newsletter should be sent to: Robin Gutsell, editor, *The Willet*, 9015-89<sup>th</sup> Street, Edmonton, Alberta, T6C 3K7. Ph.: (Home) 469-5128, (Bus.) 422-3412, Fax: 422-9685, Email: rwiacek@compusmart.ab.ca. Next newsletter deadline: March 31, 2001. Articles can be on bird banding, birdwatching, wildlife viewing, etc.

## BEAVERHILL LAKE NATURE CENTRE AND MUSEUM

### by Deanna Cox

### The BHL Nature Centre IS OPEN This winter !!

Through the commitment of some very dedicated volunteers, the Nature Centre is and has been open on Wednesdays from 10:00 am to Noon and on Saturdays from Noon to 5:00 pm, during the winter months. Anyone wishing access at other times is asked to contact Deanna Cox @ 662-9363.

We hope to be open full time hours early in April to accommodate the spring birders. We ask all the seasoned BIRDERS to PLEASE STOP IN and SHARE YOUR SIGHTINGS. Our staff relies heavily on reported sightings for knowing where to send future visitors and for answering questions. If the Nature Centre is not open when you return from birding either phone and leave a message @ 662-3191 or we do have a mailbox outside the front doors equipped with pen and paper for this purpose. Your expertise is wanted and appreciated.

### **Nature Centre Christmas Events**

Early in December the Nature Centre hosted a Christmas Open house. Guests were welcome to view our interpretive displays, browse the gift shop for unique Christmas ideas and sit down for pie, coffee and a visit. We were pleased to have over thirty visitors that day, as it was one more step in raising awareness of our facility to local residents.

Then on December 18th, a warm and festive celebration was had at our annual Christmas potluck. Supporters and volunteers gathered to share an excellent meal, fellowship, and insights to our vision for the spring.

The next "Friends of BHL" supper will be held on Saturday, February 24, 2001. The food is excellent and this time there will be discussion on the upcoming Snow Goose festival as well as other spring activities. Everyone is welcome. This event is sponsored by a local business, so all interested persons are requested to contact Deanna Cox at 662-9363.

### **Draft Conservation Plan for Beaverhill Lake**

On Wednesday January 10th, 2001, several members of the BHL Stakeholders Committee gathered to hear a presentation by-Richard Krikun, from the Canadian Wildlife Service, on a draft conservation plan for BHL as an Important Birding Area (IBA).

As part of the IBA designation there is a requirement for a conservation plan to be prepared. This assumes that the area would not already have this in place. BHL does have various management plans, but they mostly refer to specific areas and haven't been integrated into one plan. This was what Richard was attempting with his proposal.

However, the Special Places 2000 designation for BHL as a Heritage Rangeland also has a management plan which was prepared at length by members of the Stakeholders Committee and attempted to address all aspects of management. There was the feeling among those present that there was duplication between the IBA and Special Places conservation plans. The status of the Special Places designation is as yet uncertain, as the Government is reviewing current legislation. The proposed Natural Heritage Act, under which Heritage Rangelands lie, has not yet been approved.

The committee agreed that there should be more research into the Special Places plan and an attempt should be made to combine the two into one strong integrated management plan for BHL.

### **Proposed East Viewpoint Upgrade**

Part of the Important Birding Area Program allows some funding for the implementation for the conservation plan. Out of the discussion at the meeting on January 10th came the proposal for a viewing wall and signage at the East (Mundare) Viewpoint. These would improve the management of people and vehicles visiting the area and prevent unauthorized access to crown leases or private lands. They will also serve to enhance the bird watching experience of those using the area.

### MARK YOUR CALENDARS!!

The 9th Annual Snow Goose Festival will be held, April 21-22, 2001. The Saturday Banquet will include a talk by Peter Sherrington on "The last Gold Rush - the search for migratory Golden Eagles in the Rocky Mountains". **New this year!** Two additional short walking tours per day to the DU project and the Tofield Chamber of Commerce will operate a local trade show in the arena throughout the weekend.



Volume 14, Number 2

Edmonton Natural History Club and the Edmonton Bird Club Would like to announce the:

# 9<sup>th</sup> Annual Beaverhill Lake Snow Goose Festival

to be held April 21 & 22, 2001

Tofield, Alberta

- Two and three-hour bus tours begin at 8, 8:30 and 9 am, and 3, 3:30 and 4 pm.
- Three-hour walking tours are available hourly, with start times running from 8 am to 3 pm.
- Cost: Tours are free of charge.

For more information or to register call: Vanita at Tofield Town Office (662-3269)

the

### 5<sup>th</sup> Annual Snow Goose Express

Is offering all-inclusive package tours from Edmonton (Southgate) to Beaverhill Lake, including a meal and a speaker. Tours are still available for Sunday. For more information or to register call: Fred Martin 459-8165

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April 2001

# Beaverhill Lake Amphibians and Birds

May 27, 2001 Join us for an amphibian and bird walk at Beaverhill Lake.

Come and see bird banding at Beaverhill Bird Observatory

Co-sponsored by the Edmonton Natural History

Leader: Lisa Takats Meet: 7:30 a.m., Tim Horton's Calgary Trail

Duration: Finish by around 2 p.m.

Bring: Lunch, liquids, and good walking shoes

Difficulty: Walking on flat trails

**Contact**: Lisa Takats, 427-1249 (lisa.takats@gov.ab.ca) for last minute info





# Report on the Beaverhill Bird Observatory Banding Workshop – February 16-18, 2000 by Lisa Takats, Chair BBO

This year's BBO Banding Workshop was an exciting one. Highlights include: meetings with other banding stations, Friday night's guest speaker Peter Sherrington, the wide range of projects presented by very keen banders, and of course the field trip on Sunday in search of winter birds.

### Friday Afternoon

### Prairie Migration Monitoring Network Meeting

In Attendance: Brenda Dale (facilitator), Al Smith, Mike Norton, Heidi den Haan, Lisa Takats, Peter Moore, Stefan Jungkind, Doug Collister, Shawna Mercer, El Petersen, [Vi and John Lambie (observers)]

Topics discussed- Bander Training Workshop to be held at LSLBO summer 2001<br/>-concerns over North American Bird Banding Council manuals for trainers<br/>-Turbo Pyle, seems to be a good way to quickly age and sex birds<br/>-need for study birds, either frozen or wing-out museum study skins<br/>-rabies concerns when banding raptors, suggestion to get rabies shots<br/>-next Canadian Migration Monitoring Network meeting is in Nova Scotia<br/>-information sharing is important and we should continue to do it!!

### Friday Evening

Peter Sherrington was the guest speaker on Friday evening. Since 1991, Peter has been studying mountain bird ecology in the Kananaskis Valley, and through this work, became aware of the major migration of Golden Eagles through the front ranges of the Rocky Mountains. Subsequently, hundreds of volunteers have become involved in studying and mapping this migration route.

### Saturday Morning

Opening Remarks - Lisa Takats

2000 Calgary Bird Banding Society Annual Report - Doug Collister

Delta Marsh Bird Observatory 2000 Annual Report – Heidi den Haan

Beaverhill Bird Observatory 2000 Operations Report - Charles Priestley

Last Mountain Lake Bird Observatory 2000 Annual Report - El Petersen

The Lesser Slave Lake Bird Observatory 2000 Annual Report - Rainer Ebel

### Saturday Afternoon

### Winter Ecology of the Northern Saw-whet Owl, a Beaverhill Bird Observatory Project- Charles Priestley

Chuck reported on a new volunteer project being conducted in the city of Edmonton. Techniques include the use of mist nets with call playback, call surveys, and nest searches. It has been fairly successful with six owls being captured in four locations. For more information contact: americanbittern@hotmail.com

Northern Saw-whet Owls in Central Alberta - Debbie Kelly

Debbie discussed some work she was doing with Ray Cromie's nest boxes



for saw-whet owls. Nest boxes were found to be more productive than natural cavities. She plans to continue working on the saw-whets this summer.

### Dragonflies as a Doorway to Wetland Education -- Christine Rice & Jonathan Hornung

Christine and Jon overviewed their work on dragonflies and damselflies. They have a book and slide show, a website (www.ualberta.ca/~jhornung/dragonfly.htm), and are developing a CD ROM for elementary schools. They also give talks for natural history groups, provincial parks, and Grade 5 classes.



<u>Preliminary Results for Systematically Mistnetting in the Boreal Forest Canopy – Rainer Ebel. Jon</u> <u>DeMoor</u>

Rainer overviewed a new project being conducted near Lesser Slave Lake. The field work involves spot mapping, and 3-D netting in the boreal forest canopy. For more information: graejay@powersurfr.com

Banding Long Eared Owls - Summer 2000 - Al DeGroot



Al talked about a woodlot that he worked in the summer of 2000 that contained 3 Long-eared Owl nests and 1 Cooper's Hawk nest. The year 2000 was the year of the Long-eared Owl, with more nests being found than any other year (n=11). These owls nest predominantly in willows hedgerows in old magpie nests. The male roosts nearby the nest, and you can flush them easily. Long-eared Owls have a short window to conduct banding, as the young fledge fairly quickly.

### Burrowing Owls in Texas and Mexico - Geoff Holroyd, Helen Trefry and Jason Duxbury

Jason provided some new exciting information about Geoff and Helen's (Environment Canada, Canadian Wildlife Service) success in detecting to radio-tagged Burrowing Owls in Mexico and Texas. This is the first time owls from Canada have been discovered that far south.

Birds and Banders Know They're Cool – Lisa Takats

Slides to music, a tribute to banders.

### Sunday Morning

The field trip was GREAT, although it started out a little slow. The first stop we made was just east of the city, in search of a Great Gray Owl that had been regularly seen. Unfortunately, the bird did not co-operate and we left disappointed. Next stop was Strathcona Science Park, where Janos Kovacs has a bird feeding station and conducts banding. We were pleased to see a variety of birds including: Black-capped Chickadees,



Photo by Lisa Takats

Common Redpolls, and Downy Woodpeckers. Also we had an unusual sounding Boreal Chickadee come in for a visit. Our final destination was near Morinville where we hoped to find a Snowy Owl. Ray Cromie led the way and as we saw his brake lights, our hearts jumped as we spotted a Snowy Owl sitting on top of a power pole. We brought some mice, and Leah, our youngest tour group member, was



Photo hv Lisa Takats

eager to give the owl a treat. She put the mouse on the snow in the ditch, and moved a little ways away. To everyone's delight, the Snowy Owl swooped in and took the mouse right in front of all of us. What an amazing sight.

### Acknowledgements

Thanks very much to all the BBO executive and volunteers that made this year's workshop successful. Door prizes were donated by Elson Olorenshaw and Heidi

den Haan. Brenda Dale coordinated the Prairie Migration Monitoring Network meeting. Thanks also to all the banding stations and speakers that shared their information on banding, and to Janos Kovacs and Ray Cromie for helping on the field trip. I would especially like to thank the Edmonton Natural History Club for continuing to support this event through helping fund the guest speaker.

### An End of a Season

by Bryn Spence

All around us we heard owls calling. A pair of Northern Saw-whet Owls calling off to our right, a Long Eared Owl calling off to our left and a Boreal Owl calling off in the distance in front of us. This was the scene last night when we finished our last site on the west side of Edmonton for the year. I have one more site to close down this weekend but at the moment we managed to get five different species of owls (Barred, Boreal, Great Horned, Long Eared, and Northern Saw-whet) in and around the Edmonton area.

In theory, every two weeks I go out and survey one of two areas in the Edmonton area. In each of these areas are 5-6 sites where a call sequence is played and responses are noted. The sequence consists of Saw-whet, Boreal, Barred and Great Horned Owl calls each spaced out with a minute of silence. These calls are broadcast over an area using a portable CD player and speakers. I record the necessary data and move on to the next site.

After a fantastic winter of owling I would like to use this opportunity to thank Bryn Kowalchuk, Richard Krikun, Tyler Flockheart, Andrew Yeo, Bob Parsons, Monique Richards, Crystal Rausch, Myra Snyder, Andrew Forrest, Lisa Takats, and Charles Priestley who came out with me and suffered through cold feet and fingers.

### Report on May 2000 – the Jones's Banding at Beaverhills Lake

by Edgar T. Jones

May 2000, one of the coldest, windiest, wet springs ever recorded particularly the first two weeks.

While the numbers of birds held up well, the species lists dropped somewhat. For instance, cranes arrived a little early and departed very quickly for northern breeding areas. The geese came in sizeable numbers, but quickly departed – more Blue Geese mixed in this year than ever! A male Ruby-throated Hummingbird showed up on May 18, a full week early and would have to struggle hard to find sufficient food (insects) to sustain himself, due to the colder than normal temperatures. Other hummers were reported as early as May 13<sup>th</sup>, and a female arrived at our comp on May 27<sup>th</sup>.

Surprises included Swainson's Thrush -115, and Gray-cheeked Thrush -8 this year while none were recorded in the springs of '98 and '99.

Top 10 species banded from May 1<sup>st</sup> to 29<sup>th</sup>:

Chipping Sparrow	289	White-throated Sparrow	83
Clay-coloured sparrow	276	Savannah Sparrow	30
Yellow Warbler	124	Tennessee & Blackpoll Warblers	28
Swainson's thrush	115	Lincoln's Sparrow	22
Yellow-rumped (Myrtle) Warbler	114	Rate of catch/100 net hours:	26.92

Notable for their absence in the nets were: Western Tanager, Downy Woodpecker, Juncos, Connecticut, Canada, Chestnut-sided and Bay-breasted warblers, and Olive-sided Flycatcher. About 20 Willow Flycatchers are hard to explain if you look at their range map.

### Websites of Interest

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Volume 14, Number 3





### What's in the Box? (Cont.)

young, totaling 27, of which 11 were males and 16 were females. In good years, the brood size averages 4 to 5 per box, and this year was a good one.



American Kestrel

Once the young were banded, I attempted to capture the adults at each site and successfully banded 9 of the 12 adults, 4 males and 5 females. This was the first year the adults were captured at the nest sites so next year it will be interesting to see how many actually return to the same site.

The nest sites are monitored until the young are fledged. They remain in a group around the box for a couple of weeks where they practice their flying skills, learn to hunt insects and fight for food. During this time they are still fed mostly insects by the parents. First come first served, so the parents get mobbed a lot.

This fall I'll try to get a jump on next year by cleaning the boxes and moving some to new sites. I'll line the interior with new wood shavings and put out the vacancy sign for next spring. The real enjoyment comes when you pull up to a box site in late April, scan the woodlot with a pair of binoculars and see a pair of Kestrels perched in a tree near the box. Alright!

### Lyme Disease at Beaverhill Bird Observatory - Not yet!

### Summarized by Geoff Holroyd

38(4):493-500.

Lyme disease is carried by the blacklegged tick (Ixodes scapularis) that can occur on birds, on migratory birds such as we catch at BBO! When birds migrate north in the spring, Lyme disease could be carried north each spring. John Scott has asked bird banders to send bird ticks to him since 1996. He received 152 ticks from banders including some from BBO and Lesser Slave Lake Bird Observatory. Here is a summary of his results with emphasis on the Alberta ticks. In the recent article (see below), John Scott and associates (2001) identified the following ticks from Alberta:

Rabbit Tick, (Haemaphysalis leporispalustris) 2 from Least Flycatchers at BBO Blacklegged Tick (Ixodes scapularis) 8 from Swainson's Thrush at BBO (1) and LSLBO (7)

Amblyomma americanum\* - 1 from Gray-cheeked Thrush at BBO

A. longirostre - 5 from Gray-cheeked Thrush at BBO

A. maculatum\* - 2 from Gray-cheeked Thrush at BBO

A. sabanerae\* - 2 from Gray-cheeked Thrush at BBO

Three species \* were new species for Canada! These ticks are native to the southern US, and Central and South America. The Lyme disease spirochete Borrelia burgdorferi was isolated in one Ixodid tick taken off a Song Sparrow in Nova Scotia, but not from any other tick that was tested.



While Scott and his co-workers did not find evidence of Lyme disease in ticks from birds in Alberta, they did demonstrate that birds can spread Lyme disease and the host tick is carried on birds in Alberta.

Scott, J.D., K. Fernando, S.N. Banerjee, L.A. Durden, S.K. Byrne, M.Banerjee, R.B. Mann, and M.G. Morshed. 2001. Birds disperse Ixodid (Acrai:Ixodidae) and Borrelia burgdorferi-infected ticks in Canada. J. Med. Entomol.

Gray-cheeked Thrush

### Banding as an extension of the BBO

by Elson Olorenshaw

Under the auspices of the Beaverhill Bird Observatory, I band birds that nest in nestboxes. I presently have 405 of said nestboxes in various trails out from the BBO. 287 are wooden of various designs (can't seem to make up my mind) and 127 are aluminum supplied by Telus. Occupants of any particular box are usually predictable because of the immediate terrain: those pesky (but lovable) House Wrens if the box is too close to a copse (trees or bushes); undesirable House Sparrows if too near an occupied farm (they seldom seem to fledge??); favorite bird Black-capped Chickadees are most welcome but only one in 8 years (2001); Mountain Bluebirds are what every box is actually meant to attract in the first place; but you can count on those ever fascinating Tree



Swallows to put up a fight to occupy most every box no matter what the surrounding terrain!! And I must say they are really very welcome!

The only species that I band are Mountain Bluebirds. This year 355 young and 20 adults were banded while in 2000 the figures were higher - 400 young and 28 adults. It is difficult to account for the less successful results; weather was dryer this year & should have been most favorable for successful rearing of young; however, this did not seem to be the case with bluebirds. In 2001 of 100 nesting attempts -508 eggs produced only 389 young of which 381 fledged. In 2000 of 98 nesting attempts -532 eggs produced 452 young and 438 fledged. We seem to have a reduction of testosterone!! Go figure?

As for other nesters the results were similar or better in 2001 (especially Tree Swallows):--

In 2001 fledged 1183 Tree Swallows from 271 boxes & 90 House Wrens from 22 attempts. In 2000



Female Mountain Bluebird in nest box

fledged 913 Tree Swallows from 220 boxes & 80 House Wrens from 20 attempts.

In 2001 House Sparrows fledged 3 young from 4 boxes (many unsuccessful attempts)

In 2000 they had produced zero from 5 boxes (ditto!!!!)

And 4 young chickadees were fledged in 2001 from the first ever attempt!!!

### Interesting banding results in 2001:

A female bluebird banded by Bob Danner in 1999 & caught by him again in 2000 in the same nestbox 11 km south of Calmar nested 15 miles east of Edmonton along highway 16 in 2001 & successfully fledged 11 young. Also, a young male bluebird banded by myself in 2000 40 km east of Edmonton was the proud father in a box 4 km south-east of that location in 2001. He must have been homesick, you think?

This is a fascinating hobby, should anyone wish to take it up, and if they have a good spot next to grazed prairie I would be more than willing to supply a box or two, just to help the bluebirds!!

Just call.

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The Beaverhill Bird Observatory webpage!!

### CONTACTS

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### NEXT WILLET ISSUE

We are searching for a new Editor for the Willet! Come along to the AGM and find out more if you are interested.

In the meantime, material for the forthcoming newsletter should be sent to: Robin Gutsell, editor, *The Willet*, 9015-89<sup>th</sup> Street, Edmonton, Alberta, T6C 3K7. Ph.: (Home) 469-5128, (Bus.) 422-3412, Fax: 422-9685, Email: rwiacek@compusmart.ab.ca. Next newsletter deadline: January 15, 2002. Articles can be on bird banding, birdwatching, wildlife viewing, etc.

# **Interpretation and Education**

# for Beaverhill Bird Observatory



### Annual Report 2001-02

Lisa Takats Priestley, Past Chair Beaverhill Bird Observatory

July 2002

### **Acknowledgements**

I would like to acknowledge Chuck Priestley, Bryn Spence, Richard Krikun, Troy Pretzlaw, Tyler Flockhart, and Gill Priestley who all gave presentations. Also thanks to Saska Vanhala who helped set up the Junior Forest Ranger presentations. Phil and Helen Trefry with the Canadian Wildlife Service provided a Burrowing Owl, Ranger, and a Peregrine Falcon, Garth, to be used in presentations. Jim and Barb Beck supported the BBO through Beck Consulting.

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Alberta Conservation Association Canada Trust Friends of the Environment Canadian Wildlife Service (Environment Canada) Alberta Sustainable Resource Development Edmonton Natural History Club Edmonton Bird Club Shell Environment Fund University of Alberta, Department of Renewable Resources Student Career Placement Program Student Temporary Employment Program

Finally a BIG thank you to the Beaverhill Bird Observatory (BBO) board of directors (Jason Duxbury, Geoff Holroyd, Elson Olorenshaw, Chuck Priestley, Bryn Spence, Margaret Takats, and David Weir) who work tirelessly to make the BBO successful.

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All photos by author except when listed.

### Abstract

The Beaverhill Bird Observatory (BBO) took on a new project in 2001-02 to increase interpretation and education about the BBO, the Beaverhill Lake Natural Area, endangered species, monitoring and research (with a focus on birds). There were over 4260 people contacted during this project and 20 events and presentations were given throughout Alberta. A photographic library was created for the BBO, to be used for slide presentations, and new signage was erected in the natural area.

### Introduction

The Beaverhill Bird Observatory (BBO) is a non-profit charitable organization that works in the Beaverhill Lake Natural Area and throughout Alberta on projects based on research and education. Created in 1984, the BBO primarily studies the seasonal migration of songbirds within the natural area. The studies have expanded to raptor (migration, nesting, overwintering, and owl call surveys), amphibian, and insect research.

The primary focus of this project is education. Education helps to promote awareness about issues. The more people that are aware of the issue, the more likely there will be a larger effort in helping to conserve and preserve biological resources.

The Natural Area is a unique wetland and attracts a wide range of bird species during migration. Currently, migrating birds receive the greatest amount of public attention at the BBO. Also, many people come to witness the large flocks of Snow Geese during the Snow Goose Festival. These people develop a greater understanding about the importance of the ecosystem as a whole.



The purpose of this project is to increase awareness of the

Beaverhill Lake Natural Area and the Beaverhill Bird Observatory. The goal is to inform the public about the importance of wildlife, natural areas, and research being conducted by the bird observatory and other cooperating agencies in Alberta and across North America.

### Methods

Two slide shows were created to be used in presentations on the BBO, banding, and species of concern in Alberta. A slide library was also compiled to be used for other presentations and to serve as a catalogue of the BBO's programs.

A live Burrowing Owl and Peregrine Falcon were used on certain occasions to show how interesting birds can be, and how banding and studying them can be critical to the survival of the species. There were a variety of techniques used to inform the public about the Beaverhill Bird Observatory, the natural area, research, and monitoring: field trips, formal slide talks, informal talks, and displays. These talks were presented throughout Alberta to parks, school classes of all ages, natural history groups, and Scout groups.

Signage was also placed around the natural area to guide people to various viewpoints and trails.

### Results

In the 2001 fiscal year (April-March), there were over 4260 people contacted about the Beaverhill Bird Observatory, the Natural Area, endangered species, banding, monitoring, and conservation of birds. It is estimated that over 1000 additional people visited the natural area over the summer. Following are all the various events that the BBO was involved with.

### Snow Goose Festival – April 21-22

The Beaverhill Lake Snow Goose Festival is an annual event held through the Town of Tofield. The Beaverhill Bird Observatory has been working cooperatively with the Canadian Wildlife Service to lead tours. This 9<sup>th</sup> annual festival was a great success. The BBO had volunteers and board members lead eight walking tours

per day to the Natural Area. There were people stationed at the BBO lab (at Beaverhill Lake) to present information about the BBO and natural area and to tour groups that walked into the Natural Area to the mist nets and traps that were set up. Coffee, tea, juice, and cookies were available to make the tour groups' visit memorable. Over 400 people came to the BBO during this two day festival.

### Saskatoon Island Swan Festival – April 28-29

The Saskatoon Island Provincial Park Swan Festival (near Grande Prairie) celebrates the return of the nesting Trumpeter Swans, and other birds. A Beaverhill Bird Observatory display board and handouts were sent up to the park for people to learn more about other important migration areas in Alberta, monitoring and conservation through research. Over 500 people visited Saskatoon Island and the displays.

### Beaverhill Lake, Birds and Amphibians – May 27

This field trip was given in cooperation with the Edmonton Natural History Club and the Alberta Conservation Association. The amphibian component of the trip was not very successful due to the lack of water in any ponds/sloughs around the area, however the dried lake bed of Lister had many fascinating finds. An old horse skull was retrieved from the mud, spiders of all kinds were lurking in the cracks, and we had great



Lisa holds a tree swallow that was captured in a nest box.

looks at shorebirds. We trapped and banded a Tree Swallow and everyone enjoyed the close look at an adult male. We talked about the importance of monitoring, conservation, and the uses of banding. There were 15 people of all ages that participated in this event.

### Crepe Spectacular – June 10

This annual event held at the Beaverhill Bird Observatory lab each year was very successful. The weather was beautiful and Janos Kovacs, a longtime volunteer with the BBO, cooked up some spectacular crepes as the birds came in to the nets and banding was conducted. Many of the BBO board member were present to meet the volunteers and visitors.

### Ellis Bird Farm Bluebird Festival – July 14

A display board on the Beaverhill Bird Observatory was erected at the Bluebird Festival at Ellis Bird Farm near Lacombe. The board presented information on the Beaverhill Bird Observatory, the methods for used for monitoring songbirds and some information on recoveries of bands.





There was also information on how to contact the BBO, become as member, and get involved in the various programs. Posters of the owls, snakes, and amphibians of Alberta were available for people to pick up, and there was also contest for people to enter to win the book "Birds of Beaverhills Lake". Three volunteers were on site throughout the day to answer questions.





Left-Display board set up at the Bluebird Festival, Right-Some children picking up literature on the Burrowing Owl

Saskatoon Island Provincial Park, Beaverhill Bird Observatory and Owls – July 6



A presentation was given to Saskatoon Island Provincial Park visitors about the BBO, endangered species, monitoring and management, and owls. The talk was concluded with a 'walk through the forest', whereby the audience participated in making different sounds they would hear on a nature walk. These included the sounds of walking and running, the sound of rain and thunder, and the sounds that various wildlife make (mosquitoes, moose, chickadee, barred owls, raven, boreal chorus frogs, etc.). Finally, the evening was concluded when Ranger the

Burrowing Owl was brought out for everyone to meet. There were 55 people that attended the event in the park.

### Edmonton Valley Zoo, Endangered Species and BBO – July 15 and September 23

Two short one half-hour slide talks were presented two visitors at the Edmonton Valley Zoo. These presentations overviewed the BBO, but focused on wildlife that you can see outside (ie. the various bird species found in the forests). However, owls were also focused on because the zoo houses various species. Ranger, the Burrowing Owl, was once again a highlight of the presentation, and people were able to take photographs holding the bird. There were various educational materials on endangered species and the BBO for people to take. Eleven and 14 visitors were present during the talks on the two days.

### Long Lake Junior Forest Rangers and Wardens, Endangered Species, Banding, and the BBO July 21, August 5 and 13

There were three talks presented to the Long Lake Junior Forest Rangers camp. This camp is suited to children between the ages of five and 16. The children are involved in a variety of different indoor and outdoor activities about nature for week long camp. Slide talks were given to groups, and then question-answer sessions followed. Children that answered questions were given



posters of Peregrine Falcons or Burrowing Owls as a prize. Finally, Garth the Peregrine Falcon, and Ranger the Burrowing Owl were brought in for everyone to meet.

### Miquelon Lake Provincial Park

The BBO staff visited Miquelon Lake Provincial Park to give a presentation on BBO. Songbirds. Raptors, and Owls. A more formal slide presentation was given followed by some play acting where the audience were involved in dressing up like songbirds being captured in mistnets. The BBO staff went through how birds were banded and morphological data was collected (ie. wing chord, tail length, etc.), and then the birds were released to continue on their fall migration.

### Conserving Nature in the Edmonton Area – September 11, September 21-22

This new event put on by the Edmonton Natural History Club focussed on wildlife within the city limits of Edmonton. The Beaverhill Bird Observatory (Chuck Priestley, Lisa Takats, Bryn-Spence, Richard Krikun, Tyler Flockhart, Jim and Barb Beck) presented a poster on work being conducted on overwintering Northern Saw-whet Owls in Edmonton. The poster outlined the project objectives and some of the preliminary results.

### **Edmonton Scout Group**

A presentation was given to an Edmonton Scout group on Endangered Species. Banding, and the BBO. Ranger the Borrowing Owl once again made an appearance. The troop leader also planned to bring the group out to Beaverhill Lake for a field trip, but was not able to get enough parents involved to help with the trip. There were 25 scouts and leaders at this event.

### Canadian Migration Monitoring Network, BBO Update and Northern Saw-whet Owl Study October 12-14 Atlantic Bird Observatory, Nova Scotia

The BBO sent two board members (Chair and Vice Chair) to the biannual Canadian Migration Monitoring Network Meeting. Bird observatories that participate in standardized migration monitoring are encouraged to meet with the other stations to share information on research methods, fundraising, and new programs. Beaverhill presented to talks, one on an overview of the past two years of work and one on the new Northern Saw-whet Owl fall migration study being initiated. There were meetings held throughout the three days about various topics including habitat monitoring, fundraising, trend analysis, and Bird Studies Canada role in helping stations. Meeting attendees were also able to see the Atlantic Bird Observatories facilities and observe and participate in banding at the station.

### Raptor Research Foundation Conference, Saw-whets and the North American Nocturnal Owl Monitoring Strategies – October 25-28 in Winnipeg, Manitoba

A poster was presented at the annual Raptor Research Foundation conference (attendance 300+ people). The poster entitles "Saw-whet, Saw-what?!?" overviewed the BBO's project on overwintering saw-whets in Edmonton and the migration monitoring work that was being initiated. An oral presentation was given on the BBO's work with the North American Nocturnal Owl Monitoring Strategies. A course was held at the University of Alberta Renewable Resources Department for students to write up individual nocturnal owl species monitoring strategies, and the results were summarized. The BBO was asked to sit on the steering committee for NARMS, because of their contribution!! (see Appendix for abstracts)

### Killarney Junior High, Monitoring, Conservation, and Endangered Species – November 8

There were eight classes of junior high students gathered in the school library for this slide talk on research, monitoring, and how it can translate into conservation. Four groups of taxa were highlighted including amphibians, snakes, songbirds, and birds of prey. Ranger the Burrowing Owl met with 135 students and all students and staff were given educational materials on endangered species and the bird observatory.

### Conservation and Monitoring of Birds Conference – March 1-3

This conference evolved from a Banding Workshop meeting that had been held for the past four years. The goal was to bring in more of the general public by changing the title, advertising more, and printing abstract booklets to hand out to attendees. The keynote speaker was Fiona Schmiegelow from the Renewable Resources Department at the University of Alberta. Her talk focused on birds, monitoring, migration, and conservation. A full day of talks were presented on the following day. In the morning there were talks presented



by the various western banding stations (Delta Marsh MB, Lesser Slave Lake AB, Inglewood Bird Banding AB, and MacKenzie BC). The afternoon sessions were more general about specific programs and projects. Sunday was a field trip led by board members and staff.

### Minchau Elementary School Grade 5 – March 19

A slide presentation to the grade five students of Minchau Elementary School overviewed the BBO, monitoring techniques, and their application to conservation of endangered species. Ranger the Burrowing Owl made another guest appearance.

### Other

There were also a number of informal field trips held throughout the summer, most were focused on banding young owls or hawks. A lot of families with children came out to see the work (photo on left of young girl with young Great Horned Owl, photo by C. Priestley).



A display table was set up at the BBO lab, throughout the summer months (April-October) that provided free educational materials on Species At Risk (Alberta Sustainable Resource Development) around Alberta and information on the BBO (how to join the membership, volunteer, maps of the natural area). Two slide shows were compiled that can be used by staff over the following years for presentations. A new website address was purchased to give BBO higher profile and allows for easier contact by web search engines.

Another project the Beaverhill Bird Observatory is working on is morphological studies on dead birds of prey that are turned in to Fish and Wildlife Offices. Two dead raptor days were held on January 20 and April 10. Through this study, volunteers of all ages are able to learn how to identify birds of prey, age and sex them, and collect measurement information on wing chord, tail length, foot pad, tarsus, and bill culmen. The volunteers learn to look for bands on the legs of the birds, and when one is found, how to send in the information to the banding office.

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There were 35 different volunteers that participated in the project on eight days.





Table 1: Total number of people contacted at various events presented by Beaverhill Bird Observatory.

Event	# of People
Snow Goose Festival 2001	400
Saskatoon Island Sawn Festival	500
Beaverhill Lake, Birds and Amphibians	15
Bluebird Festival	300
Saskatoon Island Provincial Park	55
Edmonton Valley Zoo	25
Long Lake Junior Forest Rangers/Wardens	100
Miquelon Lake Provincial Park	95
Conserving Nature	1000+
Edmonton Scout Group	. 25
CMMN	35
RRF Annual Meeting	300+
Killarney Junior High School	135
Conservation and Monitoring Conference	150
Minchau Elementary School	25
Other	1100
TOTAL	4260+

### Conclusion

Overall the project has been very successful. This is a two year program, and there are significant plans to increase even further the number of people being contacted about the Beaverhill Bird Observatory, research, monitoring, and its applications to conservation. Funding has been secured for the continuation of this program for 2002-2003.

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# Appendices

### **Photographs of Interpretation Work**



Top left – BBO volunteer teaches Japanese visitor about handing, banding, songbirds Top right – birds aren't the only focus as this young girl shows off a young boreal toad (photo by C. Priestley) Center – Ranger in the Burrowing Owl visits with a member of the public.

Bottom left - two visitors to the bird observatory get close up to a songbird.

Bottom right – visitors to the bird observatory snack on cookies and learn about the operations during the Snow Goose Festival.







Everyone loves owls (Hardy Pletz holds a Snowy Owl for everyone to see and photograph).

A visitor on a trip to a Northern Saw-whet Owl nest box to band the young.

Bird Studies Canada board members visit the BBO.

### **Examples of Photographs in Slide Show**



Rich takes songbird out of Mistnest (above).



Canada Warbler in hand.



Identifying, aging and sexing songbirds (above) (photo by C. Priestley).



American Kestrel in Potter trap.



### (right photo)

What is Ray Cromie doing walking down the road in the middle of winter carrying a salmon net?? He has just spotted a Great Gray Owl and will put a feeder mouse down to lure the bird in and will hand net it.



You can find wildlife almost anywhere. (photo above by C. Priestley)







Even in the concret jungle of our major cities you will find signs of nature (dragonfly printed in the cement of a Tokyo walkway).









Winnipeg, Manitoba, Canada October 24-28, 2001 Radisson Hotel Winnipeg Downtown



Manitoba Conservation





The detectability of sharp-shins on the BBS is insufficient to estimate population change at relevant temporal and spatial scales, and other nesting surveys also show low detection rates or require intensive effort to detect small numbers of birds. We delineate the nesting and wintering areas for different sharp-shin populations by plotting USGS band recoveries by flyway, and examine these ranges to determine the areas monitored by a selection of long term standardized RMC stations within eastern. central, and western flyways. Power analyses of western RMC data revealed compliance with established NARMS monitoring criteria (ability to detect a 50% population decline over 25 years with a = 0.10 and \_ = 0.20) for 9 of 11 fall monitoring sites, but insufficient compliance for five spring projects. We also compared eastern RMC and CBC trends for common patterns. We summarized the eastern CBC data by mapping trends in hawks counted per 50 party hours by decade for the 1960s through 1990s, and by graphing the 1940–1998 time series of counts/ 50-party-hours-by-state. Trends in CBC maps andgraphs seem to follow patterns of decline during the DDT era shown at eastern RMC sites and clearly show concentrated wintering regions. However, although patterns from RMC and CBC data were largely positively correlated, we found some key differences that suggest a long-term monitoring strategy for this species should involve a combination of both surveys. Preliminary population modeling suggests that sharpshins may be highly sensitive to slight changes in survivorship and productivity, and may be an ideal indicator species for forested habitat. Additional research is needed to further delineate subpopulations and flyways, to determine whether winter and migration ranges differ by age and sex, and to better quantify age-specific survival, productivity, and mortality to facilitate more accurate interpretation of observed short and long-term population changes.

### North American Nocturnal Owl Monitoring Strategies

LISA TAKATS, Beaverhill Bird Observatory, Box 1418, Edmonton, AB, T5J 2N5, Canada.

The goal of the North American Raptor Monitoring Strategy is to monitor status and trends in continental and regional populations of diurnal raptors in Canada, Mexico, and the United States. Nocturnal owls were not included in the strategy; the goal of this study was to develop monitoring techniques for nocturnal owls to be included in the Strategy. The first step was to produce Guidelines for Nocturnal Owl Monitoring in North America through Beaverhill Bird Observatory and Bird Studies Canada (http://www.ualberta.ca/~jduxbury/BBO/ bboprojects.htm#Raptor). The second step was to create a special topics course run through the University of Alberta, Department of Renewable Resources, Edmonton, Alberta to develop write-ups on the combinations of techniques that would best monitor each species of nocturnal owl. The following species were covered in the course: Eastern Screech-Owl (Otus asio), Western Screech-Owl (Otus kennicottii), Whiskered Screech-Owl (Otus trichopsis). Barn Owl (Tyto alba), Flammulated Owl (Otus flammeolus), Great Horned Owl (Bubo virginianus), Elf Owl (Micrathene whitneyi), Spotted Owl (Strix occidentalis), Barred Owl (Strix varia), Long-eared Owl (Asio flammeus), Boreal Owl (Aegolius funereus), and Northern Saw-whet Owl (Aegolius acadicus). The Great Gray Owi's (Strix nebulosa) nocturnal habits were covered as well. The following monitoring techniques were assessed for each species: Migration Monitoring, Christmas Bird Counts (CBC), Breeding Bird Surveys, nocturnal owl surveys, nest searches (including Finnish Raptor Survey), roadside counts, Monitoring Avian Productivity and Survivorship, and roost counts. Recommendations to improve data collection efforts for nocturnal owls included conducting more standardized techniques during CBC, setting up standard roadside counts and nest and roost searches, and setting up an international volunteer nocturnal owi survey.



# Social Organization of Snowy Owls (*Nyctea scandiaca*) on Wrangel Island During Breeding Periods

**IRINA E. MENYUSHINA**, Wrangel Island State Nature Reserve, Prospekt Mira, Bldg.103, Apt. 109, Moscow, 129085, Russia.

Snowy Owl social organization was studied on Wrangel Island during 11 years (1988, 1990-1995, 1998-2001) by observations within model plot of 45 sq. km and on routes across the entire island. A total of 713 owl nests were found. The life history of 119 monogamous and 6 bigamous owl families was followed through the breeding season. Final nest density within a local breeding settlement is determined by the number of owls taking territories within the first days of occupation; latter arrivals are attracted to already densely populated areas. Maximum density (0.4 nests/sq km) is limited by territorial behavior. Direct territorial conflicts between owls of the same sex during settlement can lead to ejection or even death of one contestant. Borders of established territories are linear with little overlap, and are maintained by male visual and acoustic demonstrations. During the post-nesting period, females take part in territory maintenance. Where nests are close to each other, hierarchy between pairs is established with older pairs dominating younger ones. Depressed pairs have asymmetric territories: flyways to their nests can be restricted and clutch sizes reduced, probably due to social pressure. Antagonism is most pronounced between owls of the same sex. Bigamous families are formed after one male expulsion due to territorial conflicts, or when a second female settles on the periphery of an already occupied reproductive territory, inducing male sexual activity. Intrusion of a second female into the core of the nesting territory always causes strong aggression from the host female. Antagonism between same-sex-owis was also observed when two litters mixed in dense settlement during the post-nesting period. In one known case, access to chicks had the male from one family and the female from another feeding only their own young and showing no antagonism toward others. Interrelations between breeding and non-breeding owls, within owl families and litters and between migrating owls, are described.

### Saw-whet! Saw-what?!?

\*CHARLES PRIESTLEY, LISA TAKATS, BRYN SPENCE, TYLER FLOCKHART, RICHARD KRIKUN, JAMES A. BECK Jr., and BARBARA BECK, Beaverhill Bird Observatory, Box 1418, Edmonton, AB, T5J 2N5, Canada.

In the fall of 2000, an urban Northern Saw-whet Owl (Aegolius acadicus) project was initiated in Edmonton, Alberta, Canada. Our main focus of investigation was the winter ecology of this species. Using call surveys, mist netting and banding we are trying to determine the following: location of migration corridors, winter distribution and abundance, differential age and sex classes of overwintering individuals and their associated habitat preferences during the winter. During the pilot year, we chose four main study sites where the mist netting and banding would take place. Three owls where caught and banded at our southwest site (7 October, 18 November and 11 March), two owls where caught and banded at our northwest site (22 October and 3 February), one owl was caught and banded at our northeast site (5 November) and no owls were caught at our southeast site. Sampling started in October and was completed at the beginning of April; therefore, it is probable that we missed a good portion of the migrating owls. Two of the owls that we caught were males by wing chord (125 mm and 129 mm) and four of them were of unknown sex by wing chord (131, 134, 134 and 137 mm). Four owls were of the hatch year/second year age category, one was an after hatch year bird and one was a third year bird. Based on our preliminary data it appears that, in Edmonton, an overwintering strategy is favored by young males. More research will be conducted to get a better understanding of this, the winter distribution and abundance, and winter habitat preferences.

Presenter indicated in **bold** — \* indicates student award candidate

### Saw-whet Owl Migration at Beaverhill Lake 1997, 2000, 2001

by Lisa Priestley and Chuck Priestley

### Introduction

The use of migration counts for monitoring bird populations has been used for years. The use of mist nets has become a standard procedure for collecting information on many species of birds. Recently, work has been conducted on migration monitoring for nocturnal owls. Mist nets are set up at night and call playback (playing calls of owls) is used to attract owls to the nets. The work depends on owls actually moving through the Beaverhill Lake Natural Area, which has never been determined. Other banding stations across Canada have piloted this program and have discovered populations of Saw-whet (*Aegolius acadicus*) and Boreal Owls (*Aegolius funereus*) migrating through.

Northern Saw-whet Owl migration monitoring was attempted, by the Beaverhill Bird Observatory (BBO), in 1997, 2000 and 2001 at Beaverhill Lake to determine whether owls were moving through the Beaverhill Lake Natural Area.

#### Methods

Songbird mist nets (used for BBO's standard migration monitoring) with an audiolure were set up on various nights throughout the fall of 1997, 2000, and 2001. Songbird mist nets used included numbers 2, 2x, 3, 4, 40, 41, 43, 43x, and 49 in various combinations. A repeating tape or CD of the Saw-whet Owl territorial call was used. There was no standard protocol for start and end times and which nights were chosen, as the time spent was dependent on volunteers.

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#### Results

Nets-were set up-on the following-dates:-----

1997 – September 6, 13, 21, 28, October 4, 18 2000 – August 16, 18, 19, 25, 26, September 9, 13, 14, 17, October 8, 11, 13, 24 2001 – August 27, September 2, 9, 13, 14, 20, 24, 28, 29, October 6, November 12, 17

On September 21, 1997, the first Northern Saw-whet Owl was captured at Beaverhill Lake by the BBO in mist net number 3. Unfortunately the owl escaped from the songbird net so it was not banded. There were a total of 23 owls captured on 31 days during the three years migration monitoring was attempted (Table 1, Figure 1). Capture rates are not comparable year to year, as the number of nets set, the location of those nets and the number of hours per night are not standardized.

In 2000, 9 hatch-year females, 3 hatch-year unknowns, and 1 hatch-year male were captured. In 2001, 5 hatch-year females, 1 hatch-year unknown, 1 hatch-year male, 1 second-year female, and 1 after second year unknown were captured.

Year	Number of Nights	Number of Hours	Number of Owls Captured	Number of owls/hour
1997	6	79.75	1	0.012
2000	13	182.75	13	0.071
2001	12	149.0	9	0.060
Total	31	411.50	23	

Table 1. Results of fall migration monitoring for Northern Saw-whet Owls at Beaverhill Lake.



Figure 1. Number of saw-whet owls captured on nights of migration monitoring (1997, 2000, 2001).

### Other Results of Interest

A hatch-year female Northern Saw-whet Owl was captured in a drop-lid trap on August 13, 2000

Spring migration monitoring was attempted on April 29, 2000 and on March 16, May 20, and May 25, 2001. One Long-eared Owl was captured on May 25, 2001.

We look forward to full time monitoring in 2002!!

#### Acknowledgements

We thank the Beaverhill Bird Observatory and the Edmonton Natural History Club for helping support this pilot work. We would like to acknowledge all the people who spent time helping with this project and the number of nights they helped: Jim Beck (5), Barb Beck (6), Julia Burger (1), Jennifer Carpenter (1), Christa (1), Warren Fleming (1), Tyler Flockhart (8), Andrew Forrest (1), Richard Krikun (16), Jeff Manchak (1), Juanita Mumby (2), Carole and Paul Newton (1), Chuck Priestley (12), Lisa Priestley (16), Christine Rice (5), Mira Snyder (1), Bryn Spence (5), Terri (1), Saska Vanhala (1), Scott Wagner (2), Drew Yeo (1).

### 2001 Beaverhill Bird Observatory Sight Records

n

Legend

\*Regularly Occurring Species \*\*Rarely Occurring Species \*\*\*\*\*Status Unknown PR- Previously Recorded

Species	First Record 2000	First Record 2001	Last Spring Reco	rd 2001	First Fall 2001	Last record 2001	Last Record 2000	
Loons								
Common Loon	****	****	*****		****	****	****	
Grebes								
<ul> <li>Pied-billed Grebe</li> </ul>		****				****	Aug 26 (CP)	Breeding
Horned Grebe	Apr 22 (BP)	****				****		Breeding
Red-necked Grebe	May 8 (BBO)	****				*****	Aug 26 (CP)	Breeding
Eared Grebe	Apr 29 (BP)	****				****		Breeding
Western Grebe	Apr 29 (BP/LT)	****				****	Aug 19 (RK)	Breeding
Pelicans							• • •	Ŭ
<ul> <li>American White Pelican</li> </ul>	Apr 29 (LT)	May 9 (RK/TP)				****	Aug 30 (RK)	Breeding
Cormorants		-						-
<ul> <li>Double-crested Cormorant</li> </ul>	Apr 29 (LT)	****				****	Aug 13 (TF/CP)	Breeding
Herons								-
American Bittern	May 18 (TF/RK)	July 3 (RK/TP)				****	Sep 28 (RK)	Breeding
Great Blue Heron	Apr 29 (BP/LT)	May 10 (RK/TP)	June 5 (RK/TP)			****	Oct 4 (RK)	Transient
<ul> <li>Black-crowned Night-Heron</li> </ul>	July 21 (TF/RK/DT)	May 4 (RK/TP)				****	Sep 9 (RK)	Breeding
lbis								_
Vultures								
Waterfowl								
<ul> <li>Gr. White-fronted Goose</li> </ul>	Apr 9 (BP)	Apr 21 (BBO)	May 16 (RK/TP)		Aug 31 (RK/TP)	Sep 30 (LT)	Sep 27 (RK)	Transient-Spring and Fall Migrants
Snow Goose	Apr 29 (LT)	Apr 21 (BBO)	May 10 (RK/TP)		Sep 1 (RK)	Sep 29 (RK)	Oct 6 (RK)	Transient-Spring and Fall Migrants
Ross's Goose	Apr 29 (LT)					Sep 30 (LT)		Transient-Spring and Fall Migrants
<ul> <li>Canada Goose</li> </ul>	Mar 26 (BP)	May 1 (RK/TP)				Sep 30 (LT)	Oct 6 (RK)	Breeding
<ul> <li>Trumpeter Swan</li> </ul>	Apr 21 (BP)							Transient-PR:1991,'92,'95,'97
Tundra Swan	May 3 (CP/TF/RK/DT)	****				****	Oct 5 (RK)	Transient-Spring and Fall Migrants
• Gadwali	Apr 9 (BP)	May 2 (CP)				****	Aug 26 (CP)	Breeding
<ul> <li>American Wigeon</li> </ul>	Apr 2 (BP)	May 13 (RK/TP)				****	Aug 27 (RK)	Breeding
Mallard	Apr 29 (LT)	May 2 (CP)				****	Sep 20 (RK)	Breeding
<ul> <li>Blue-winged Teal</li> </ul>	Apr 22 (BP)	May 4 (RK/TP)				****	Sept 20 (RK)	Breeding
<ul> <li>Northern Shovelor</li> </ul>	Apr 2 (BP)	May 2 (CP)				Aug 16 (MT)	Aug 26 (CP)	Breeding
<ul> <li>Northern Pintail</li> </ul>	Apr 2 (BP)	May 2 (CP)				****	Aug 28 (TF)	Breeding
<ul> <li>Green-winged Teal</li> </ul>	Apr 9 (BP)	*****				*****		Breeding
<ul> <li>Canvasback</li> </ul>	June 4 (RK)	****				****		Breeding
Redhead	Apr 29 (LT)	May 6 (RK)				****	Aug 26 (CP)	Breeding

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<ul> <li>Ring-necked Duck</li> </ul>	Apr 21 (BP)	May 8 (RK/TP)			****		Breeding
Greater Scaup	May 23 (RK/CP)	****			****	PR: Aua 26, 1967 (I	DD): May 29, 1994 (JB)
Lesser Scaup	Apr 29 (LT)	***			****		· · // ····· / / ···· · ( /
Bufflehead	Apr 29 (LT)	****			****	Aug 26 (CP)	Breeding
<ul> <li>Common Goldeneye</li> </ul>	****	****			****	Aug 26 (CP)	Breeding
Barrow's Goldeneye	****	****			****	*****	
Hooded Merganser	Apr 9 (BP)	****			***	****	
Common Merganser	May 2 (BBO)	****			****	****	
Ruddy Duck	Apr 22 (BP)	****			****	****	Breedina
Hawks & Eagles		•					
Bald Eagle	Mar 19 (EBC)	Apr 21 (BBO)			****	Sep 23 (TF)	Transient
Northern Harrier	Mar 26 (BP)	Apr 21 (BBO)			Sep 30 (LT)	Oct 5 (RK)	Breeding
<ul> <li>Sharp-shinned Hawk</li> </ul>	Apr 29 (LT)	May 16 (RK/TP)			Sep 20 (RK/BS)	Sep 13 (BK)	Breeding
Cooper's Hawk	Apr 30 (LT)	May 2 (CP/RK/TP)			Sep 23 (LT/CP)	Oct 3 (BK)	Breeding
Northern Goshawk	***	****			Sep 2 (BK)	Sep 14 (BK/SW)	Transient- Winter
<ul> <li>Broad-winged Hawk</li> </ul>	Apr 29 (LT)	****			****		Transient
Swainson's Hawk	Apr 29 (BP/SK)	****			**		Breeding
<ul> <li>Red-tailed Hawk</li> </ul>	Mar 26 (BP)	Apr 21(BBO)			Sep 23 (LT/CP)	Sep 15 (BK/SW)	Breeding
<ul> <li>Rough-legged Hawk</li> </ul>	Apr 9 (BP)	Apr 21(BBO)			*****	July 22 (BK)	Transient
Falcons	· · · · · / · · /					001, 22 (111)	
<ul> <li>American Kestrel</li> </ul>	Apr 22 (BP)	****		-	****	Aug 31 (TF/BK)	Transient
Merlin	Apr 21 (BP)	May 2 (CP/RK/TP)			Aug 23 (RK/TP)	Aug 17 (BBO)	Breeding
Peregrine Falcon	May 7 (TF/RK)	May 4 (RK/TP)	May 17 (RK/TP)				Transient
Grouse			, , , , , , , , , , , , , , , , , , ,				
<ul> <li>Ring-necked Pheasant</li> </ul>	Apr 9 (BP)	****			****		
Ruffed Grouse	Apr 29 (LT)	May 1 (RK/TP)			Sep 25 (RK)	Oct 6 (RK)	Breedina
•• Sharp-tailed Grouse	May 1 (BBO)	****			****		
Rails and Coots							
• Sora	May 13 (CP/TF/MS)	May 8 (RK/TP)	July 4 (RK/TP)		****	Sep 12 (RK)	Breeding
American Coot	May 1 (BBO)	May 2 (CP/TP/RK)	,		****	, , , ,	Breeding
Cranes	,						
<ul> <li>Sandhill Crane</li> </ul>	Apr 21 (BP)	May 2 (CP/RK/TP)	May 27(RK/TP)	Sep 8 (RK)	Sep 27 (RK)	Oct 2 (RK)	Transient- Spring and Fall Migrant
Plovers			2			· /	
<ul> <li>Black-bellied Plover</li> </ul>	Apr 29 (BP)	May 9 (TF)	May 13 (RK/TP) <sup>,</sup>				Transient-Spring and Fall Migrants
<ul> <li>American Golden-Plover</li> </ul>		May 9 (TF)	May 17 (RK/TP)				Transient-Spring and Fall Migrants
<ul> <li>Semipalmated Plover</li> </ul>	Apr 29 (BP/SK/LT)	May 9 (TF)	May 15 (RK/TP/TF		Aug 16 (RK/MT)		Transient-Spring and Fall Migrants
• Killdeer	Apr 21 (BP)	Apr 21 (BBO)			Aug 16 (RK/MT)	Aug 6 (RK)	Breeding
	Apr 29 (LT)				• • •	•••	Transient
<ul> <li>Marbled Godwit</li> </ul>	Apr 29 (BP)	May 9 (RK/TP)			Sep 9 (RK)	Uuly 25 (LT)	Breeding
<ul> <li>Sanderling</li> </ul>							Transient
<ul> <li>Semipalmated Sandpiper</li> </ul>	Apr 29 (BP/SK)	****			****		Transient
•• Western Sandpiper		****			****		Transient
<ul> <li>Least Sandpiper</li> </ul>		****			****		Transient
<ul> <li>White-rumped Sandpiper</li> </ul>		****			***		Transient
<ul> <li>Baird's Sandpiper</li> </ul>		****			****		Transient

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Pectoral Sandpiper	Apr 29 (BP/SK)	May 3 (BK/TP)			****		Transiont	
• Dunlin	May 1 (TF/RK/CP)	*****			****		Transient	
Common Snipe	Apr 29 (RP/SK/LT)	May 7 (PK/TP)			****		Brooding	
• Wilson's Phalaropa		May 7 (1111117) May 10 (DK/TD)				Aug 20 (VF)	Brooding	
Pod pocked Phalarope	June 22 (TF)	May 10 (DNTE)			July 23 (HN)	July 25 (LT)	Breeding	
		May I/(ntvir)					Breeding	
• Franklin's Gull	Apr 01 (DD)						Due e din e	
Prankins Guil     Benenerte's Guil	Apr 21 (BP)	May 3 (RN/TP)			Aug 16 (HK/MT)		Breeding	
Bonaparte's Guit	Apr 29 (LT)	May 17 (HIVTP)	May 17 (RM/TP)				Iransient	
	A	A 04 (DD 0)			<b>•</b> •• • • • •	Aug 26 (CP)	- "	
	Apr 29 (L1)	Apr 21 (BBO)			Sep 30 (L1)	Sep 23 (TF)	Breeding	
• California Guil	May 2 (BBO)					Aug 26 (CP)	Breeding	
• Herring Gull		*****			****	Aug 26 (CP)	Transient	
	May 3 (BBO)							
• Common Tern	May 15 (TF/RK)	May 13 (RK/TP)			Aug 24 (RK/TP)	Aug 4 (TF)	Breeding	
Forster's Tern	May 28 (CP/TF/DT)						Breeding	
<ul> <li>Black Tern</li> </ul>	May 18 (TF/RK)	May 24 (RK/TP)				Aug 13 (TF/CP)	Breeding	
Doves								
Rock Dove	Mar 26 (BP)						Breeding-Year round Resident	
<ul> <li>Mourning Dove</li> </ul>	May 21 (RK)						Breeding ?	
Cuckoos								
••• Black-billed Cuckoo	July 12 (CP/TF)							
Owls		i.						
<ul> <li>Great Horned Owl</li> </ul>	Apr 22 (BP)	Apr 21 (BBO)			Sep 29 (RK)	Sep 15 (RK/SW)	Breeding-Year round Resident	
•••• Northern Hawk Owl						Oct 5 (RK)		
🕶 Long-eared Owl	Apr 30 (LT)	May 3 (RK/TP)			Sep 30 (LT)	Aug 29 (RK)	Breeding	
<ul> <li>Short-eared Owl</li> </ul>	Apr 29 (LT)	Ma 15 (RK/TP/TF)			Sep 13 (RK)	Aug 6 (RK)	Breeding	
<ul> <li>Northern Saw-whet Owl</li> </ul>	Apr 29 (LT)	May 4 (RK/TP)			Sep 30 (LT)	Sep 9 (RK)	Transient	
Nightjars								
🕶 Common Nighthawk		May 25 (RK/TP)						:
Hummingbirds								
<ul> <li>Ruby-throated Hummingbird</li> </ul>	May 16 (RK/TF)	May 23 (RK/TP)			Aug 20 (RK)	Aug 6 (RK)	Breeding	
Woodpeckers					• • •	••••	-	
<ul> <li>Yellow-bellied Sapsucker</li> </ul>	May 12 (TF)			June 2 (RK/TP)	Sep 20 (RK/ BS)			
Downy Woodpecker	May 3 (BBO)	Apr 21 (BB0)			Sep 30 (LT)	Oct 6 (RK)	Breeding	
Hairy Woodpecker	Apr 29 (LT)	Apr 21 (BBO)			Sep 17 (RK)	Sep 28 (RK)	Breeding-vear round resident	
Northern Flicker	Apr 29 (LT)	May 3 (RK/TP)			Sep 3 (RK/CP/LT)	Sep 7 (RK)	Breeding-year round resident	
Pileated Woodpecker						Sept 14 (RK/SW)	Breeding-vear round resident	i
Flycatchers						· · · · · · · · · · · · · · · · · · ·		I
Western Wood-Pewee	****			Aua 12 (RK/TP)		Aug 17 (BBO)	Breeding	
<ul> <li>Yellow-bellied Flycatcher</li> </ul>	June 1 (TF/RK)					June 22 (RK)	Transient	
Traill's Flycatcher	May 21 (RK)	May 27 (RK/TP)			Sep 4 (BK)	Aug 30 (BK)	Breeding- Alder or Willow Elycatcher	
Alder Flycatcher	May 28 (CP/TF/DT)	Ma 26 (RK/TP/CP)	1		Aug 4 (RK/TP)	Aug 14 (TF)	Breeding	
Least Flycatcher	May 6 (TE)	May 9 (BK/TP/CP)			Sep 24 (BK)	Sen 8 (BK)	Breeding	
Eastern Phoebe	Apr 29 (LT)	May 1 (BK/TP)	May 4 (BK/TP)			Aug 26 (CP)	Breeding	
Sav's Phoebe	· · · · · · · · · · · · · · · · · · ·					,	Diooding	
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<ul> <li>Eastern Kingbird</li> </ul>		May 7 (RK/TP)						
Shrikes								
<ul> <li>Northern Shrike</li> </ul>	Apr 2 (BP)	****					****	Winter Transient
Vireos								
<ul> <li>Blue-headed Vireo</li> </ul>	May 16 (RK/TF)				Aug 18 (CP/LT)	Sep 9 (RK)	Sep 7 (RK)	Transient
<ul> <li>Warbling Vireo</li> </ul>	May 15 (RK/TF)	May 19 (LT/CP)				Sep 6 (RK)	Sep 13 (RK)	Breeding
<ul> <li>Philadelphia Vireo</li> </ul>	May 25 (CP/MG/TF)				Aug 11 (RK/TP)		Aug 30 (RK)	Transient
<ul> <li>Red-eyed Vireo</li> </ul>	Apr 29 (LT)	May 22 (RK/TP)				Sep 11 (RK)	Sep 13 (RK)	Breeding
Jays and Crows								
<ul> <li>Blue Jay</li> </ul>		•				Sep 29 (RK)	Oct 2 (RK)	Summer transient-Winter resident
<ul> <li>Black-billed Magpie</li> </ul>	Mar 26 (BP)	Apr <b>z</b> 1 (BBO)				Sep 30 (LT)	Oct 6 (RK)	Breeding-year round resident
<ul> <li>American Crow</li> </ul>	Mar 26 (BP)	Apr 21 (BBO)				Sep 29 (RK)	Sep 25 (RK)	Breeding
<ul> <li>Common Raven</li> </ul>	Apr 29 (LT)	Apr 21 (BBO)				Sep 24 (RK)	Oct 6 (RK)	Breeding-year round resident
Larks								
<ul> <li>Horned Lark</li> </ul>	May 19 (BP)							
Swallows								
<ul> <li>Purple Martin</li> </ul>	Apr 29 (BP/SK)							Breeding
Tree Swallow	Apr 29 (LT)	May 1 (RK/TP)				Aug 12 (RK/TP)	Aug 26 (CP)	Breeding
<ul> <li>Barn Swallow</li> </ul>	Apr 29 (LT)	May 17 (RK/TP)						Breeding
Chickadees			İ			-		
<ul> <li>Black-capped Chickadee</li> </ul>	Apr 29 (LT)	Apr 21 (BBO)				Sep 30 (LT)	Oct 6 (RK)	Breeding
Nuthatches								
<ul> <li>Red-breasted Nuthatch</li> </ul>	May 16 (RK/TF)	May 8 (RK/TP)			Aug 6 (RK/TP)	Sep 24 (RK)	Sep 27 (RK)	Breeding?
<ul> <li>White-breasted Nuthatch</li> </ul>	Apr 29 (BP/SK)				Sep 2 (RK)	Sep 10 (RK)	Oct 6 (RK)	Breeding ?
Creepers								
Brown Creeper			1			Sep 28 (RK)		Breeding ?
Wrens								
House Wren	May 17 (TF/RK)	May 9 (RK/TP/TF)		•		Aug 31 (RK/TP)	Sep 8 (RK)	Breeding
<ul> <li>Marsh Wren</li> </ul>	May 16 (RK/TF)	May 3 (RK/TP)					Aug 28 (TF)	Breeding
Kinglets			Ì					
<ul> <li>Golden-crowned Kinglet</li> </ul>	****	Ma 15 (TF/RK/TP)	May 15 (TF/RK/TP)			Sep 24 (RK)	Sep 9 (RK)	Transient
<ul> <li>Ruby-crowned Kinglet</li> </ul>	Apr 21 (BP)	May 2 (RK/TP/CP)	May 10 (RK/TP)		Aug 30 (RK/TP)	Sep 28 (RK)	Sep 28 (RK)	Transient
Bluebirds & Thrushes								
<ul> <li>Mountain Bluebird</li> </ul>	Mar 19 (EBC)	May 6 (RK/TP)						Breeding
Veery	May 4 (TF)							Breeding
<ul> <li>Swainson's Thrush</li> </ul>	May 12 (TF)	May 11 (RK/TP)				Sep 24 (RK)	Sep 22 (RK)	Breeding
Hermit Thrush	May 2 (BBO)	May 1 (RK/TP)				Sep 25 (RK)	Oct 3 (RK)	Breeding
<ul> <li>American Robin</li> </ul>	Apr 9 (BP)	Apr 21 (BBO)				Sep 30 (LT)	Aug 18 (RK)	Breeding
•• Varied Thrush							Sep 26 (RK)	
Mimic Thrushes								
Gray Catbird	May 31 (RK)	June 1(RK/TP)	June 6 (RK/TP)		-	Sep 3 (CP/LT/RK)	Aug 20 (CP/MS)	Breeding ?
Pipits								
<ul> <li>Sprague's Pipit</li> </ul>		Ma 13 (TH/RK/TP)						
Waxwings								

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Cedar Waxwing	June 3 (TF)	June 2 (RK/TP)			Sep 29 (RK)	Sep 20 (RK)	Breeding
Warblers						• • •	Ū
<ul> <li>Tennessee Warbler</li> </ul>	May 15 (RK/TF)	May 22 (RK/TP)	May 27 (RK/TP)	July 12 (RK/TP)	Sep 18 (RK)	Sep 26 (RK)	Transient
<ul> <li>Orange-crowned Warbler</li> </ul>	May 6 (TF)	May 4 (RK/TP)	May 16 (RK/TP)	Sep 3 (CP/LT)	Sep 30 (LT)	Sep 28 (RK)	Transient
- Nashville Warbler	****	May 13 (RK/TP)	May 14 (RK/TP)	,	Sep 24 (RK)	Sep 15 (RK/SW)	Transient
Yellow Warbler	May 12 (TF)	May 13 (RK/TP)	, , , ,		Sep 8 (RK)	Sep 11 (BK)	Breeding
<ul> <li>Magnolia Warbler</li> </ul>	May 26 (CP)	May 22 (RK/TP)	May 22 (RK/TP)	Aug 20 (BK/TP)	Sep 17 (BK/BS)	Sep 20 (BK)	Transient
Cape May Warbler	*****		Aug 31 (BK/TP)	Sep 11 (BK)		Sep 27 (RK)	Transient
•••• Black-throated Blue Warbler					Sen 18 (BK)	00027 (110)	PB. 2
<ul> <li>Yellow-rumped Warbler</li> </ul>	Apr 29 (LT)	May 1 (BK/TP)	June 9 (LT/CP)	July 3 (BK/TP)	Sep 30 (LT)	Oct 5 (RK)	Transient
Black-throated Green Warbler	May 24 (CP)	÷			Aug 22 (BK/TP)	Sep 6 (RK)	Transient
Paim Warbler	May 9 (CP/RK)	May 7 (RK/TP)	May 16 (BK/TP)	Aug 30 (BK/TP)	Son 24 (BK)	Sep 0 (rin)	Transient
Bay-breasted Warbler	May 27 (TE/CP)	may / (morr)	way to (morry		Sep 24 (NK)	3ep 26 (nk)	Transient
Blackpoll Warbler	May 21 (RK)	May 19 (CP/LT)	May 26 (BK/TD)			Con 02 (TE)	Transient
Black-and-white Warbler	May 4 (TE)	May 10 (CP/LT)	May 20 (CP/LT)	Aug 5 (NVTP)	Sop 2 (OF/LT)		Transient
American Bedstart	May 25 (CP/MG/TE)	May 20 (017ET) May 22 (RK/TP)	luno 1 (RK/TP)	Aug 3 (HIVTP)	Sep 2 (HR)		Transient
Ovenbird	May 19 (TE/DK)	May 22 (11011) May 11 (DK/TD)			Sep 15 (TF)		Transient
Northern Waterthrush	May 17 (TE/DK)	May 22 (PK/TP)	May 22 (DK/TD)		Sep 10 (RK)	Sep 14 (HKVSVV)	
Connecticut Marbler	May 27 (TE/CP)	$\frac{1}{2} \frac{1}{2} \frac{1}$	lung 1 (BK/TD)		Sep 13 (HK)	Sep 6 (HK)	Transient
Mourping Worklor	May 27 (1F/OP)			Aug 20 (HK)	0	Sep 8 (HK)	Transient
Common Vollouthroat	May 27 (17/07)	May 20 (RN/1P)	June 10 (CP/LT)	AUG 14 (RK/TP)	Sep 5 (HK)	Aug 14 (TF)	Iransient
	Way 24 (CP)	May 23 (HRVTP)			Sep 10 (HK)	Sep 11 (HK)	Breeding
				Aug 11 (RK/TP)	Sep 27 (HK)	Sep 25 (RK)	Transient
• Canada wardier	May 30 (TF)	June 4 (RK/TP)	June 4 (RK/TP)	Aug 11 (RK/TP)	Aug 24 (RK/TP)	Aug 20 (CP/MS)	Transient
•• Western Lanager	May 9 (CP/RK)	May 10 (RK)			Sep 10 (RK)		Transient
Native Sparrows							
American Tree Sparrow	Apr 2 (BP)	****		Sep 24	Sep 30	Oct 5 (RK)	Transient
Chipping Sparrow	May 4 (TF)	May 7 (RK/TP)	May 27 (RK/TP)		****	Sep 13 (RK)	Breeding
<ul> <li>Clay-colored Sparrow</li> </ul>	May 9 (CP/RK)	May 5 (RK/TP)			Sep 11 (RK)	Sep 14 (RK/SW)	Breeding
<ul> <li>Vesper Sparrow</li> </ul>	Apr 29 (BP/SK)	*****			****		Breeding
<ul> <li>Savannah Sparrow</li> </ul>	Apr 29 (LT)	May 2 (RK/TP/CP)			Sep 4 (RK)	Aug 31 (TF/RK)	Breeding
<ul> <li>Le Conte's Sparrow</li> </ul>	May 2 (BBO)	May 8 (RK/TP)			Aug 7 (RK/TP)	Aug 6 (RK)	Breeding
<ul> <li>Nelson's Sharp-tailed Sparrow</li> </ul>	May 28 (CP/TF/DT)	June 5 (RK/TP)			Aug 2 (RK/TP)	Aug 6 (RK)	Breeding
•• Fox Sparrow						Sep 7 (RK)	Transient
<ul> <li>Song Sparrow</li> </ul>	Apr 29 (LT)	May 2 (CP/RK/TP)			Aug 16 (CP/LT)	Aug 15 (TF)	Breeding
<ul> <li>Lincoln's Sparrow</li> </ul>	May 3 (CP/RK/DT/TF)	May 3 (RK/TP)	May 22 (RK/TP)	Aug 10 (RK/TP)	Aug 10 (RK/TP)	Sep 15 (RK/SW)	Transient
<ul> <li>White-throated Sparrow</li> </ul>	May 1 (BBO)	May 2 (RK/TP/CP)			Sep 30 (LT)	Sep 27 (RK)	Breeding
<ul> <li>White-crowned Sparrow</li> </ul>	May 12 (TF)	May 3 (RK/TP)	May 16 (RK/TP)	Sep 12 (RK)	Sep 18 (RK)	Sep 22 (RK)	Transient
<ul> <li>Dark-eyed Junco</li> </ul>	Apr 29 (BP)	May 3 (RK/TP)	May 3 (RK/TP)	Sep 13 (RK)	Sep 30 (LT)	Oct 3 (RK)	Transient
<ul> <li>Lapland Longspur</li> </ul>	Apr 9 (BP)		,		, , ,	· · ·	
<ul> <li>Snow Bunting</li> </ul>	Mar 19 (BP)						Resident-Winter
Cardinals							
<ul> <li>Rose-breasted Grosbeak</li> </ul>	May 1 (BBO)	May 13 (RK/TP)	June 7 (RK/TP)	Aug 10 (RK/TP)	Aug 21 (RK/TP)	Aug 17 (CP/TF/MS)	Transient
Blackbirds and Allies	•			<b>.</b> . ,	2 . /	• (••••••	
<ul> <li>Red-winged Blackbird</li> </ul>	Apr 29 (LT)	May 2 (RK/CP/TP)			Aug 16 (MT)	Sep 9 (RK)	Breedina
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<ul> <li>Western Meadowlark</li> </ul>	Apr 22 (BP)		
<ul> <li>Yellow-headed Blackbird</li> </ul>	May 1 (BBO)	May 13 (RK/TP)	
<ul> <li>Brewer's Blackbird</li> </ul>	Apr 29 (BP/SK)	****	
<ul> <li>Brown-headed Cowbird</li> </ul>	Apr 29 (LT)	May 2 (RK/TP/CP)	
<ul> <li>Baltimore Oriole</li> </ul>	May 15 (RK/TF)	May 15 (RK/TP)	
Finches			
Purple Finch	Apr 29 (LT)	May 1 (RK/TP)	May 12 (RK/TP)
<ul> <li>Common Redpoll</li> </ul>	Mar 26 (BP)		
<ul> <li>Pine Siskin</li> </ul>	Mar 26 (BP)	May 10 (RK/TP)	May 19 (CP/LT)
<ul> <li>American Goldfinch</li> </ul>	May 14 (TF)	May, 14 (RK/TP)	
<ul> <li>Evening Grosbeak</li> </ul>	May 24 (CP)	May 2 (CP/RK/TP)	May 2 (CP/RK/TP)

	Aug 26 (CP)	Breeding Breeding
Aug 10 (RK/TP) Aug 17 (RK/TP)	Aug 26 (CP)	Breeding Breeding
Sep 30 (LT)	Oct 3 (RK)	Transient
	Sep 15 (RK/SW)	Transient
Sep 23 (LT/CP)	Sep 7 (RK)	Breeding
	Aug 13 (TF/CP)	Transient

### Contributors

CP-Charles Priestley LT-Lisa Takats TF-Tyler Flockhart TP-Troy Pretzlaw RK-Richard Krikun BS-Bryn Spence EJ-Edgar Jones BP-Bob Parsons DD-Dick Dekker TH-Tanya Hope SW-Scott Wagner MT-Matt Timph