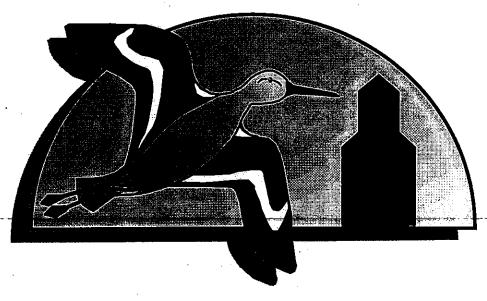
Beaverhill Bird Observatory



1998 Annual Report

Lisa Takats, Editor September 2000

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

Abstract

The Beaverhill Bird Observatory lab was opened on April 25 and shut down on October 7th. A total of 3806 birds were banded (70 species). The Myrtle Warbler was the most common species banded during migration monitoring and the top five while Yellow Warblers, Least Flycatchers, Tennessee Warblers, and Clay-coloured Sparrows were also common. A number of other projects were run this year including: tree swallows boxes, nest monitoring, raptor nest banding, fall raptor migration, nocturnal owl monitoring, morphological work on dead raptors, amphibian monitoring, and Odonate surveys.



Lady in front of BBO lab in fall 1998. (photo by Lisa Takats)

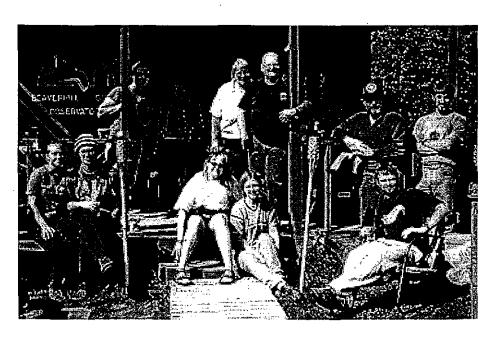
"When you stand on the lake's south shore and look north across its 18 km expanse, there is a stretch on the horizon where water touches sky."

-Dick Decker, Prairie Water, Wildlife at Beaverhills Lake, Alberta (1998)

ACKNOWLEDGMENTS

I would like to first thank the following funding agencies who make this research possible with their generous grants and support: Alberta Sport, Recreation, Parks, and Wildlife Foundation, Manning Diversified, Student Career Placement Program, and Student Temporary Employment Program. Much thanks to the 1998 observatory field staff Christine Rice, Shannon Quinn, and Lisa Burt for their hard work and dedication to the study of Beaverhill Lake Natural Area. Special thanks to Jeff Adamyk who worked on the nocturnal owl surveys and the raptor morphological work. 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: Jeff Adamyk, Jim & Barb Beck, Stephen Glendinning, Kris Kendell, Bryn Politylo, and Marnie Paquin. 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 1998 year of the observatory a success: Jason Duxbury, Geoff Holroyd, Elson Olorenshaw, Al DeGroot, Jim Faragini, Jim Nichols, and Josh Bilyk.

A final acknowledgment to Pat Nolan who allows us to store our lab materials at his place over winter and to Roy Fairweather who continues to compile the site records.



Friends of the BBO (photo by Lisa Takats)

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BACKGROUND

The Beaverhill Bird Observatory (BBO) was established in 1984. A bird banding laboratory was built in 1986 and in 1987, the BBO was designated the stewards of the Beaverhill Lake Natural Area. In 1988, the BBO received its non-profit organization status. The laboratory has been staffed by summer students who, along with volunteers have been banding and counting birds in the natural area since that time. The focus of the research in the past was on migratory songbird banding.



Now in its 14th year, many new projects are being undertaken, to expand studies to other birds and wildlife in the Beaverhill Natural Area, and in other parts of Alberta. The RANA (Researching Amphibian Numbers in Alberta) and Alberta Raptor Monitoring Program were initiated in 1997 and 1998 respectively. A dragonfly inventory was conducted in 1998, and a volunteer butterfly count was also added.

The objectives of this non-profit organization are:

- To promote community interest in birds and the natural world through participation in outdoor activities related to wildlife,
- 2) To promote the preservation and conservation of Canada's natural heritage with species emphasis on the Beaverhill Lake area,
- 3) To conduct studies of migrant and resident birds and other aspects of natural history, at Beaverhill Lake, in the province, and elsewhere, and to publish the results of such studies.
- 4) To assist the work of amateur and professional biologists and students who are carrying our compatible observations and research work,
- 5) To engage in educational activities that promote an appreciation for Beaverhill Lake and natural history, and
- 6) To cooperate with organizations with similar objectives.

The Board of Directors (Executive Committee) is comprised of a minimum of eight people. Their goal is to use financial, human and physical resources effectively and responsibly to ensure the growth and continuation of the Beaverhill Bird Observatory Society.

The 1998 Beaverhill Bird Observatory Executive (prior to November 1) were:

Chairman - Jason Duxbury
Vice-Chair/Editor - Lisa Takats
Treasurer - Elson Olorenshaw
Recording Secretary - Geoff Holroyd
Past Chair - Petra Rowell
Directors-at-large - Al de Groot (building maintainance)
Jim Nichols
Jim Faragini

The employees for 1998 included: Christine Rice, Shannon Quinn, Lisa Burt (summer students), and Jeff Adamyk (raptor monitoring and data compilation/entry).

BEAVERHILL BIRD OBSERVATORY SOCIETY

Box 1418 Edmonton. Alberta T5J 2N5

1/20/99

Balance Sheet

13th Period 1998

10:49:56 AM	
Assets	
Current Assets	
Chequing Account	, \$19,245.47
Investments	\$20,000.00
Accounts Receivable	\$2,100.00
Total Current Assets	\$41,345.47
Deposits Paid	\$2,783.34
Property & Equipment	42 , 00.01
Buildings	- \$3,604.55
Donation Boxes	\$541.00
Computer	\$600.00
Banding Equipment	\$1,100.00
Display Board	\$527.00
Refrigerator	\$2,000.14
Solar Panels	\$846.38
Total Property & Equipment	\$9,219.07
Total Assets	<u>\$53,347.88</u>
Liabilities	
Current Liabilities	
Deposits on account	\$2 ,895.65
Total Current Liabilities	\$2,895.65
Total Liabilities	\$2,895.65
Equity	
Retained Earnings	\$23,672.86
Current Year Earnings	\$26,779.37
Total Equity	\$50,452.23
Total Liability & Equity	\$53,347.88

BEAVERHILL BIRD OBSERVATORY SOCIETY

Box 1418 Edmonton. Alberta T5J 2N5

Profit & Loss Statement

13th Period 1998

1/8/99	
4-40-03	PM

Selected Period	% of Sales	Year to Date	% of YTD Sales
\$0.00	NA	\$3,406.00	4.99
\$0.00	NA	\$2,800.00	4.09
	NA	\$4,000.00	5.89
- '	NA	\$5,000.00	7.29
\$0.00	NA	\$18,000.00	25.99
	NA	\$500.00	0.79
	NA	\$33,706.00	48.59
\$0.00	NA	\$480.00	0.79
\$0,00	NA	\$2,879.31	4.1
\$0.00	NA	\$6,534.41	9.49
\$0.00	NA	\$25.74	0.09
\$0.00	NA.	\$31.82	0.09
			9.59
			0.19
			1.39
• • • • • • • • • • • • • • • • • • • •			
\$0.00	NA	\$308.00	0.49
	•		0.19
			0.29
			0.39
			34.89
			35.79
\$0.00	NA	\$69,447.76	100.09
\$0.00	NA	\$37.00	0.19
\$0.00	NA	\$91.73	0.19
\$0.00	NA	\$69,319.03	99.89
_			
\$0.00	NΑ	\$123.05	0.29
			0.19
			0.29
			1.2
			0.1
			1.09
			0.49
			0.2
			0.3
			3.6
			1.7
			2.0
			- 0.1
			2.8
			0.19
\$0.00	NA NA	\$414.90	0.69
361 (10)			
	\$0.00 \$0.00	\$0.00 NA	\$0.00 NA \$4,000.00 \$0.00 NA \$4,000.00 \$0.00 NA \$5,000.00 \$0.00 NA \$5,000.00 \$0.00 NA \$33,706.00 \$0.00 NA \$33,706.00 \$0.00 NA \$33,706.00 \$0.00 NA \$480.00 \$0.00 NA \$480.00 \$0.00 NA \$480.00 \$0.00 NA \$480.00 \$0.00 NA \$6,534.41 \$0.00 NA \$21,879.31 \$0.00 NA \$31,162 \$0.00 NA \$31,163,296 \$0.00 NA \$116.52 \$0.00 NA \$116.52 \$0.00 NA \$116.52 \$0.00 NA \$116.52 \$0.00 NA \$146.90 \$0.00 NA \$24,160.00 \$0.00 NA \$162.96 \$0.00 NA \$667.17 \$0.00 NA \$162.96

BEAVERHILL BIRD OBSERVATORY SOCIETY

Profit & Loss Statement

13th Period 1998

1/8/99 4:40:04 PM

4:40:04 PM		•		
	Selected Period	% of Sales	Year to Date	% of YTD Sales
Insurance	\$0.00	NA	\$283.73	0.4%
WCB Expense	\$0.00	NA	\$100.00	0.1%
Travel Expense	\$0.00	NA.	\$3,367.76	4.8%
Payrol!				
Wages	\$0.00	NA	\$22,994.26	33.1%
Employer Expenses	\$0.00	NA	\$1,445.77	2.1%
Total Expenses	\$0.00	NA_	\$35,864.65	<u>51.6%</u>
Operating Profit	\$0.00	NA	\$33,454.38	48.2%
Other Expenses	•		, .	
Calgary BB5	\$0.00	NA	\$2,472.06	3.6%
Lesser Slave Bird Obs.	\$0.00	NA	\$4,202.95	6.1%
Total Other Expenses	\$0.00	NA	\$6,675.01	9:6%
Net Profit / (Loss)	\$0.00	NA	\$26,779.37	3624%



Message from the Chairman - Jason Duxbury

The birds returned in 1998. Looking over the data from the previous years, banding totals had been decreasing. Whether there had been an actual decrease in the population or a change in migration patterns, the number of birds being caught in our nets had been reduced from the earlier years of the

decade. This trend seemed as if it was going to continue in the spring as numbers continued to be low. However, to the delight of our summer staff of Christine Rice, Shannon Quinn and Lisa Burt, the birds (mostly Myrtle Warblers) came back with a vengeance in the fall. There were a few days where capture rates were comparable to the highest ever at the lab. Overall, 3 806 birds were banded, with 3 020 being banded during the fall migration monitoring period. Monitoring Avian Productivity and Survivorship (MAPS) continued in 1998, and 105 birds that were summer residents were captured in the Beaverhill Lake Natural Area. Species diversity also continued with 70 species of birds being captured.

Previous to the banding season, Bird Studies Canada held a general meeting to discuss the formation of the Canadian Migration Monitoring Network. The meeting was held at the Long Point Bird Observatory in Port Rowan, Ontario. I was fortunate to attend the meeting, and was introduced to members from 13 other migration monitoring stations from across Canada and one from Michigan. The mandate of the network will be to facilitate communication between stations, assist in the analysis of migration monitoring data, and to encourage projects that multiple stations across the network can participate in. The official membership is expected to be awarded to the Beaverhill Bird Observatory in early 1999.

Also occurring before the banding for 1998, was the second Bird Banders Workshop. Held again in February, this year's event grew into a three day event with the participation of the Edmonton Natural History Club and the Edmonton Bird Club. The guest speaker for the mini-conference was Richard Cannings from Bird Studies Canada (British Columbia representative) who gave a great talk on the natural history of British Columbia on the Friday evening. The Saturday of the event was filled with talks on bird banding and population monitoring techniques and results from station representatives from British Columbia, Alberta, Saskatchewan, and Manitoba. Finally, a field trip led by Hardy Pletz and Ray Cromie to search for winter raptors north of Edmonton capped off the successful weekend.

The Canadian Wildlife Service's Brenda Dale once again held another bird banding trainer's workshop. This year's workshop was held at the Last Mountain Lake Bird Observatory in Saskatchewan. Ken Burton from the Institute for Bird Populations returned to facilitate the event at our representative was Josh Bilyk.

Overall, another successful year. The summer staff and many volunteers worked hard all summer, the weather seemed to cooperate more than it did in 1997, and the return of high capture rates in the fall was a relief to all. We now look forward to another successful year in 1999.

SCIENTIFIC RESEARCH AND PROJECTS

Overall Bird Banding Totals

The Beaverhill Bird Observatory was opened for the Snow Goose Festival on April 25. Spring Migration Monitoring nets were opened on April 25 and closed on June 9 (2467.5 net hours in 34 days of banding) to switch over to MAPS (Monitoring Avian Productivity and Survivorship). This study was initiated on June 11 and was completed on July 28. Fall Migration Monitoring started on August 1 and was completed on October 7th (2267.45 net hours in 45 days of banding). A total of 3806 birds were banded (1.41 times the number of birds banded in 1997) (Table 1). Seventy different species of birds were captured throughout the year (71 species in 1997) with the highest

species diversity in the fall (Table 2 and 3, Appendix A). This diversity can be attributed to the many warbler species that move through the area in the late summer and early fall. Fall migration was the busiest time for the lab with 3020 birds being banded (1.89 times more than the total number banded in fall of 1997). MAPS was the slowest time with only 11 species being captured (131 individuals).

The top five species of birds captured were: Myrtle Warbler (1882), Yellow Warbler (605), Least Flycatcher (495), Tennessee Warbler (362), and Clay-colored Sparrow (249). Other common species found in the nets included Black-capped Chickadee (180), American Redstart (74), and House Wren (69). Unusual and rare species captured in nets included: Gray Catbird, Varied Thrush, Veery, Gray-cheeked Thrush, and

included: Gray Catbird, Varied Thrush, Veery, Gray-cheeked Thrush, and Myrtle Warbler
Nashville Warbler. Nineteen species of warblers, nine species of sparrows, four species of vireos,

Table 1: Total birds captured (per 100 net hours) at Beaverhill Bird Observatory in 1998

Season	Banded	Repeats	Returns	TOTAL
Spring Migration	443 (18)	37	81	561
MAPS.	105	26		131
Fall Migration	3020 (13)	237	12	3269
Other-	238	8	4	250
TOTAL	3806	308	97	4211

Table 2: Species diversity captured at the bird observatory.

and all six species of thrushes were captured this year.

Season	. # Bird Species Captured
Spring	48
Summer	11
Fall	. 60
Total	70



Chrstine and Jon band a Magpie

Table 3: Birds caught at Beaverhill Bird Observatory in 1998.

Species	Number	Species	Number
Cooper's Hawk	3	Myrtle Warbler	1882
Sharp-shinned Hawk	3	Western Palm Warbler	17
Northern Goshawk	1	Blackpoll Warbler	63
Yellow-bellied Sapsucker	1	Common Yellowthroat	10
Hairy Woodpecker	1	American Redstart	74
Downy Woodpecker	10	Wilson's Warbler	15
Western Wood Pewee	4	Magnolia Warbler	29
Alder Flycatcher	8	Mourning Warbler	7
Trail's Flycatcher	25	Black-and-White Warbler	9
Least Flycatcher	495	Connecticut Warbler	4
Yellow-bellied Flycatcher	3	Black-throated-green Warbler	2
Eastern Phoebe	1	Northern Waterthrush	11
Tree Swallow	167	Ovenbird	14
Barn Swallow	1	Bay-breasted Warbler	1
Black-billed Magpie	3 .	Nashville Warbler	1 .
Blue Jay	1	Chipping Sparrow	9
Black-capped Chickadee	180	Clay-colored Sparrow	249
House Wren	69	Savannah Sparrow	8
Swainson's Thrush	22	Song Sparrow	4
Hermit Thrush	11	Lincoln's Sparrow	6
Gray-cheeked Thrush	3	White-throated Sparrow	13
Veery	2	White-crowned Sparrow	34 6
Varied Thrush	· 1	American Tree Sparrow	77
American Robin	9	Slate-colored Junco	66
Gray Catbird	1	Oregon Junco	6
Warbling Vireo	30	Brown-headed Cowbird	10
Red-eyed Vireo	22	Purple Finch	1
Blue-headed Vireo	1	Pine Siskin	2
Philadelphia Vireo	9	American Goldfinch	- 10
Red-breasted Nuthatch	8	Baltimore Oriole	2
Brown Creeper	3	Bullock's/Baltimore Oriole	1
Tennessee Warbler	362	Ruby-crowned Kinglet	14
Orange-crowned Warbler	101	Golden-crowned Kinglet	9
Yellow Warbler	605	Cedar Waxwing	4
Cape May Warbler	11	Rose-breasted Grosbeak	3

The extended fall season of banding continued to be productive for late migrants. Golden-crowned Kinglets (9), Slate-colored Juncos (66), and Brown Creepers (3) were the highlights of fall banding.

Nest Records

Twelve nests were discovered throughout the summer belonging to eight species of birds (Table 4). The two waterfowl nests were depredated, while the Cedar Waxwing (Bobxilla cedrorum) nest was found abandoned soon after if was discovered. Eight nests were confirmed to be successful. One of the House Wren (Troglodytes aedon) nests had 10 young fledge from it.



Table 5: Passerine nests located in 1998 (excluding Tree Swallows).

Date	Species	Number of Eggs or Young	Status
May 6	Mallard	7 eggs	depredated
June 4	American Robin	2 young	fledged
June 15	Least Flycatcher	3 young	fledged
June 18	Blue-winged Teal	10 eggs	depredated June 20
June 25	Eastern Phoebe	, 5 young	fledged
June 30	House Wren	7 young	banded
July 6	House Wren	10 young	banded
July 9	Barn Swallow	2 young	fledged
July 13	Cedar Waxwing	}	abandoned
July 18	Least Flycatcher	unknown	unknown
July 25	Least Flycatcher	3 young	fledged
August 8	Eastern Phoebe	3 young	fledged

Tree Swallows

A total of 43 Tree Swallow (*Tachycineta bioolor*) nests were found in the nest box grid during the summer of 1998 (Table 5). Only one nest was not successful in producing young. There were The maximum number of eggs found in a single nest box was 10, with the average being 6.84 eggs/nest. The maximum number of young recorded in a nest was eight, with average being 6.11 young/nest. A total of 167 nestling Tree Swallows were banded at 33 nests. The earliest and latest banding dates for young swallows were 19 June and August 6 respectively, with the majority of banding taking place on June 25. Two



Tree Swallow

adult Tree Swallows were banded, on June 4, while two adults were caught that had bands.

Table 5: Tree Swallows banded on nest box grid at BBO.

		(2.56) e (17.15 e (17.	r gallet (Filester)	100 per 1944 p	19754-138 a sh	340 16 24 24 21 28	
Box#	Max Eggs	Date	Max	Date	Banded	# Banded	Date
in in an area of the same			Young				
3	6	04-Jun	5	25-Jun	N	0	
2	7	25-May	7	23-Jun 18-Jun	Ϋ́	7	25-Jun
2	Ü		3	30-Jul	Ÿ	2	06-Aug
1	5	18-Jun	5	25-Jun	Ý	5	06-Jul
À	7	04-Jun	7	25-Jun	Ý	7	25-Jun
6	6	04-Jun	6	18-Jun	Ý	6	25-Jun
7	. 10	18-Jun	2	25-Jun	Ý	2	06-Jul
8	6	25-May	6	18-Jun	Υ	6	18-Jun
9	ŭ		· 4	17-Jul	Y	4	30-Jul
10	6	25-May	6	18-Jun	Y	6	25-Jun
11	5	18-Jun	5	06-Jul	Ň	Ö	fledged?
12 .	6	04-Jun	6	18-Jun	Ÿ	6	25-Jun
13	6	25-May	6	04-Jun	Ý	6	18-Jun
15	6	04-Jun	6	25-Jun	Ň	Ō	
18	6	04-Jun	6	25-Jun	N	Ö	
19	8	18-Jun	7	06-Jul	Ÿ	7	06-Jul
20	6	04-Jun	3	18-Jun	Ý	2	25-Jun
21	7	25-May	6	18-Jun	Ý	3	25-Jun
22	7	25-May	7	18-Jun	Ý	1.	25-Jun
24	6	04-Jun	6	18-Jun	Y	6	25-Jun
24b	6	04-Jun	4	18-Jun	N	0	
25	7	25-May	5	18-Jun	N	0	
26	6	04-Jun	5	25-Jun	N	0	
27	6	04-Jun	6	18-Jun	Υ	6	25-Jun
28	7	25-May	7	18-Jun	Υ	7	18-Jun
29	7	25-May	7	40Jun	Υ	7	18-Jun
30	7	25-May	7	18-Jun	Υ	7	18-Jun
32b	6	04-Jun	5	25-Jun	Υ	4	25-Jun
33	6	04-Jun	6	18-Jun	Y	6	25-Jun
34	7	25-May	7	18-Jun	N	0	
35	5	25-May	4	18-Jun	Υ	4	25-Jun
36	6	04-Jun	5 5	25-Jun	Υ	5 5	25-Jun
37b	6	25-May	5	25-Jun	Υ	5	25-Jun
38	6	04-Jun	6	25-Jun	Y	5	25-Jun
39	7	04-Jun	6	25-Jun	Y	6	25-Jun
40	6	25-May	5	06-Jul	Y	5	19-Jul
41	6	04-Jun	2	18-Jun	Y	1	06-Jul
42	7	18-Jun	7	06-Jul	Y	7	19-Jul
44	2 8	19-Jul	U	 	N	0	25-Jun
45	8 '	04-Jun	8 3	25-Jun	Y	8	25-Jun
46 47	3	25-May	3	25-Jun	Y	3	25-Jun
47 40	6	04-Jun	5	25-Jun	Y	5	25-Jun
49	4	25-May	2	25-Jun	N	0	
Average	6.84		6.11				Construction of the Constr
Total	253		226			167	
THE PARTY OF THE							

<u>Raptors</u>

Birds of prey were plentiful at the bird observatory in 1998. Three Cooper's Hawks (Accipiter cooper), three Sharp-shinned Hawks (Accipiter striatus), and two Northern Goshawks (Accipiter gentilis) were captured in mist nets and drop-lid traps (Table 6). Most captures took place during fall migration. Four raptor nests were discovered, 1 Red-tailed Hawk (Buteo jamaicensis), 2 Cooper's Hawk, and 1 Great Horned Owl (Bubo virginianus), and all the young were banded (Table 7).

Table 6: Birds of prey captured and banded in the 1998 field season.

Date	Species	Sex	Age	Trap Type
May 29	Sharp-shinned Hawk	Male	SY	Mist Net
May 31	Sharp-shinned Hawk			Mist Net
Aug. 29	Cooper's Hawk	Female	HY	Drop-lid
Aug. 30	Cooper's Hawk	Female	HY	Drop-lid
Aug. 31	Cooper's Hawk	Female	HY	Drop-lid
Sept. 11	Sharp-shinned Hawk	\mathbf{M} ale	SY	Mist Net
Sept. 23	Northern Goshawk	Male	HY	Drop-lid
Sept. 28	Northern Goshawk	Male	HY	Drop-door

Table 7: Raptor nests located near or in the natural area in 1998.

Date	te Species Number of Eggs/Young		Status
June 21	Red-tailed Hawk	1 young	Banded by Lisa Takats
July 13	Cooper's Hawk	4 young	Banded by Al DeGroot
July 13	Cooper's Hawk	2 young	Banded by Al DeGroot
June 7	Great Horned Owl	1 young	Banded by Hardy Pletz

Sight Migration Monitoring of Raptors

Red-tailed Hawks and Northern Harriers (*Circus cyaneus*) were the most abundant species of raptors observed at Beaverhill Lake Natural Area while Accipiters and Falcons were less abundant. There appeared to be two peaks in the fall migration of raptors, one around August 11-20 and the second around September 19-28.

Another component of the Raptor Monitoring Program was morphological work on dead birds of prey turned in to Fish and Wildlife. A total of 155 dead raptors, representing 23 species of birds of prey, were studied (Table 8). The only owl that wasn't recorded was the Great Gray Owl which is being studied by Ray Cromie and Gordon Cordon Court.

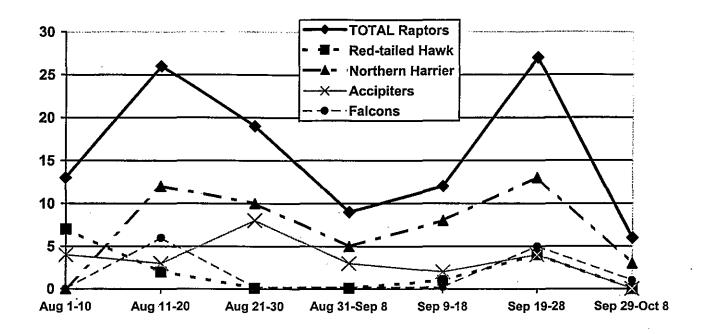


Figure 1: Number of raptors observed in seven 10 day intervals from August 1-October 8.

Table 8: Species and numbers of dead birds of prey turned in to Fish and Wildlife in 1998.

Species	Number	Species	Number	
Golden Eagle	11	Peregrine Falcon	4	
Osprey	1	Barred Owl	1	
American Kestrel	2	Burrowing Owl	1	
Merlin	15	Boreal Owl	2	
Sharp-shinned Hawk	6	Great-horned Owl	34	
Northern Goshawk	4	Long-eared Owl	6	
Swainson's Hawk	18	Northern Hawk-Owl	1	
Red-tailed Hawk	17	Northern Saw-whet Owl	7	
Broad-winged Hawk	2	Northern Pygmy Owl	1	
Rough-legged Hawk	7	Short-eared Owl	19	
Ferruginous Hawk	1	Snowy Owl	3	
Prairie Falcon	2	TOTAL 15		

Nocturnal Owl Surveys

The nocturnal owl monitoring continued in the Foothills Model Forest around Hinton. As well, volunteer monitoring around Alberta was initiated (Appendix D).

RANA (Researching Amphibian Numbers in Alberta)

The RANA project continued for a second year (Appendix E).

Ode-ing at Beaverhill Lake - by Christine Rice

"Ode-ing", the art and science of identifying and appreciating dragonflies and damselflies, may be more similar to "birding" than you realize. The physical beauty and observable antics of birds, qualities that make bird watching so appealing, are mirrored in the insect realm by odonates (dragonflies and damselflies). Odonates are very beautiful and charismatic creatures. Some of their common names attempt to illustrate their colourful features by using words such as "emerald", "jewelwing" and "saffron". As airborne adults they are easily observed and exhibit recognizable behaviours including territoriality, aggressive displays, hunting, ovipositing, and mating.

During the summer of 1998, while I was a bird bander at the Beaverhill Bird Observatory, I conducted a survey of the odonata of the Beaverhill Lake Natural Area (Alberta Naturalist (29) 2, Summer 1999). To accurately identify odonates I would catch-and release them using an insect net, and the acrobatic skills of a ninja. The following species list was compiled using my survey data (May October 1998) as well as contributions from John Acorn, Ed Fuller, & Carl Cook. If you have encountered an odonate at the Beaverhill Lake Natural Area that is not included in this list, please contact me via this web-site so it can be updated accordingly.

Odonate Species List for Beaverhill Lake Natural Area

- 1. Common Spreadwing (Lestes disjunctus)
- 2. Emerald Spreadwing (Lestes dryas)
- 3. Taiga Bluet (Coenagrion resolutum)
- 4. Prairie Bluet (Coenagrion angulatum)
- 5. Boreal Bluet (Enallagma boreale)
- 6. Northern Bluet (Enallagma cyathigerum)
- 7. Marsh Bluet (Enallagma ebrium)
- 8. Plains Forktail (Ischnura damula)
- 9. Lake Darner (Aeshna ermita)
- 10. Variable Darner (Aeshna interrupta)
- 11. Common Green Darner (Anax junius)
- 12. Spiny Baskettail (Epitheca spinigera)
- 13. Boreal Whiteface (Leucorrhinia borealis)
- 14. Four-spotted Skimmer (Libellula quadrimaculata)
- 15. Varigated Meadowhawk (Sympetrum corruptum)
- 16. Saffron Winged Meadowhawk (Sympetrum costiferum)
- 17. Black Meadowhawk (Sympetrum danae)
- 18. Cherry-faced Meadowhawk (Sympetrum internum)



Visitors were more common on a regular basis at BBO this year. 70 visitor names were recorded in the BBO logs, while many more Snow Goose Festival participants came to see the lab (Appendix B).

1998 Site Records

The 1998 site records were again compiled by Roy Fairweather. 197 species were reported in and around the Beaverhill Lake Natural Area (Appendix C).



Willet

Three issues of the Willet were printed (Appendix F).

Recent Literature

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Takats, L. and C. Rice. 1998. The 12 hours of raptor migration. Edmonton Naturalist 26(1): 11-14.

APPENDICES

Appendix A: Total numbers of birds caught at Beaverhill Bird Observatory in 1998.

Species	SPRING Banded	SPRING Repeats	SPRING Return	SPRING Tot Caught	SPRING	MAPS	MAPS	MAPS
Alder Flycatcher	CONTRACTOR CONTRACT CONTRACTOR CONTRACTOR	repeats	Return	Tot. Caught	1st day	Banded	Recapture	Tot. Caught
American Goldfinch	5 9			5	26-May	•		. 0
American Redstart	6			9 6	31-May 19-May	~		0 0
American Robin	. 6		1	7	19-May 17-May		•	0
American Tree Sparrow	1		•	1	26-Apr			0
Baltimore Oriole				•	2014		• .	· ·
8am Swallow	1			1	7-Jun			0
Bay-breasted Warbler								•
Black-billed Magpie								
Black-and-white Warbler	1			1	12-May			0
Black-capped Chickadee	1		3	4	4-May	7		7
Blackpoll Warbler	3			3	17-May			0
Black-thr. Green Warbler								
Blue-headed Vireo						<u>.</u>		
Blue Jay		_	_					
Brown-headed Cowbird	6	2	2	10	19-May			0
Brown Creeper	4					•		
Bullock's/Baltimore Oriole	1			1	5-Jun		•	0
Cape May Warbler	4			_				
Cedar Waxwing	4			4	31-May			0
Chipping Sparrow Clay-colored Sparrow	8 117	1 7		9	13-May			0
		. /	3	127	8-May	13	1	14
Common Yellowthroat Connecticut Warbler	1 2			1	5-Jun			0
Downy Woodpecker	2			2	28-May			0
Eastern Phoebe	4				05.4			•
Golden-crowned Kinglet	i			1	25-Apr			0
Gray-cheeked Thrush	2			1	25-Apr			0
Gray Catbird	2			2	12-May			0
Hairy Woodpecker		•						
Hermit Thrush	4			4	12-May		4	4
House Wren	16	6	3	25	15-May	9	1	1 9
Least Flycatcher	88	11	7	106	16-May	51	16	9 67
Lincoln's-Sparrow-	3	···	<u> </u>		10-May			
Magnolia Warbler	3			3	27-May			Ö
Mouming Warbler	1			1	28-May			ő
Myrtle Warbler	25			25	8-May			Ö
Nashville Warbler					·,			v
Northern Waterthrush	1			1	12-May			0
Orange-crowned Warbler	10			10	7-May			Ö
Oregon Junco								•
Ovenbird	1		•	1	16-May			0
Philadelphia Vireo					•			
Pine Siskin								
Purple Finch						*		•
Red-breasted Nuthatch								
Red-eyed Vireo	6		1	7	28-May	1		1
Rose-breasted Grosbeak	1			1	15-May			0
Ruby-crowned Kinglet	3			3	25-Apr			0
Savannah Sparrow	3			3	11-May			0
Sharp-shinned Hawk	1			1	29-May			0
Slate-colored Junco	3			3	25-Арг			0
Song Sparrow	3			3	7-May			0
Sparrow sp.	, 4							
Swainson's Thrush	16			16	8-May			0
Tennessee Warbier	1			1	28-May	5		5 +
Tree Swallow (grid)*	^			_	18-Jun			
Unid. Traill's Flycatcher	3			3	3-Jun	1		1
Varied Thrush	1	•		1	26-May			0
Veery Warbling Vireo	2 2		4	2	25-May			0
Western Palm Warbler	1	1	1	4	20-May	3	1	4
Nestern Wood-Peewee	2			1	12-May			0
Nhite-crowned Sparrow	4			2	29-May			0
*/hite-throated Sparrow	8			8	Q.Man	_		0
√ilson's Warbler	U			0	8-May	•		0
ellow Warbler	57	9	60	126	15-May	14	· 7	21
ellow-bellied Flycatcher	1	5	30	120	7-Jun	1	′	21 1
ellow-bellied Sapsucker	1			1	13-May	1		0
*. Validavat kommunikasidaksi erekti eterokasida	ar			RESTRICTED AND STREET	TO-May		echologistambilisi (totto)	
OTALS	443	37	81	561		105	26	131
. Therefore the companies of the compani	Transmitted				SELECTED TO TO STORY			ELECTRONIC PROPERTY TO THE

Appendix A: Total numbers of birds caught at Beaverhill Bird Observatory in 1998.

Species	Other	Other		Other Caught	FALL	FALL	FALL	FALL Other cap.	FALL T Caught	FALL 1st day	TOTALS
Alder Flycatcher	-aliueu	::::::::::::::::::::::::::::::::::::::	TOLUIII I.	es ambustito en rec	ليدائدا والمعارسة فالمسابع فينعوه وتما	repeats	(Verning)	Americabi	ar, Caught	edden angegen grande gyntryfiliga er	niitorii titatamaaanii delenii i 8
Aider riycatcher American Goldfinch				0	3				3 1	7-Aug	10
American Goldmon				0 0	50	1		8	68	8-Aug	74
American Robin				-	59 2	•		O	. 2	5-Sep	9
American Tree Sparrow			•	0 0	70	6			76	21-Sep	9 77
Baltimore Oriole				U	70	O		2	2	16-Aug	2
Barn Swallow				0				. ~	Õ	10-Aug	1
Bay-breasted Warbler				U	1				1	3-Aug	1
Black-billed Magpie					3 ·				3	16-Sep	3
Black-and-white Warbler				0	8				8	9-Aug	9
Black-capped Chickadee	5	1		6	55	105	1	2	163	1-Aug	180
Blackpoll Warbier	Э	1		0	55 52		'	7	60	17-Aug	63
Black-thr. Green Warbler				U		1		•	2	11-Aug	2
Blue-headed Vireo		'			2 1				4	30-Aug	1
					-			i	2	13-Sep	2
Blue Jay				^	1			ı		13-Seb	10
Brown-headed Cowbird				0	•				0	45.0	
Brown Creeper	•			_	3				3	15-Sep	3
Bullock's/Baltimore Oriole				0	_			_	0		1
Cape May Warbler			•	_	9			2	. 11	11-Aug 👙	11
Cedar Waxwing				0					0	Ñ	4
Chipping Sparrow				0		•			0	ej ej	. 9
Clay-colored Sparrow	12			12	89	2	1	4	96	1-Aug	249
Common Yellowthroat				0	9				9	27-Aug	10
Connecticut Warbler				0	1	1		•	2	25-Aug	4
Downy Woodpecker					4	4		2	10	11-Aug	10
Eastern Phoebe				0					0	1 M	1
Golden-crowned Kinglet				0	8				8	29-Aug 👸	9
Gray-cheeked Thrush				0	1				1	3-Oct	3
Gray Catbird					1				1	10-Aug	1
Hairy Woodpecker					1		1		2	25-Aug	2
Hermit Thrush				0	4	2			6	5-Aug	11
House Wren				Ö	30	5			35	1-Aug	69
Least Flycatcher	9	1		10	270	8	2	32	312	1-Aug	495
Lincoln's Sparrow	5	•		0 .	3	Ü			3	- B-Aug	6
Magnolia Warbier				0	23	2		1	26	9-Aug	29
Mourning Warbler				0	5	4		1	6	14-Aug	7
Myrtle Warbler				0	1372	55	3	427	1857	1-Aug	1882
Nashville Warbler				U	1	33		727	1	14-Sep	1
Northern Waterthrush				0	10				10	3-Aug	11
Orange-crowned Warbler				0	85	2		4	91	25-Aug	101
Oregon Junco				U	5	1		7	6	27-Sep	6
Ovenbird	•			0		'			13	27-3ep 9-Aug	14
				U	13		•	4	. 9	14-Aug	9
Philadelphia Vireo Pine Siskin					7	1		1	. g	14-Aug	
	1			1	1				1	27-Sep 14-Aug	2
Purple Finch					1				1		1
Red-breasted Nuthatch					7			1	8	11-Aug	8
Red-eyed Vireo				0	12	1	1		14	5-Aug 🚆	22
Rose-breasted Grosbeak				0	2				2	5-Aug	3
Ruby-crowned Kinglet				0	10			1	11	16-Aug 🚆	14
Savannah Sparrow				0	3			2	5	5-Aug	8
Sharp-shinned Hawk				0	1				. 1	11-Sep 🚇	2
Slate-colored Junco				0	62	1			63	7-Sep	66
Song Sparrow				0	1	-			1	10-Aug 🥞	4
Sparrow sp.								2	2	16-Aug 🎽	2
Swainson's Thrush				0	5			1	6	11-Aug	22
Fennessee Warbler	24			24	270	9		53	332	1-Aug	362
Tree Swallow (grid) *	167			167		-				6-Aug	167
Unid. Traill's Flycatcher	1		•	1	16	4			:20	3-Aug	25
Varied Thrush	•			o O		•			õ	4	1
Veery				Ö					. 0	178 275	2
Warbling Vireo	1			1	19	1		1	21	1-Aug	30
Western Palm Warbler	'			0	19 11	2		3	16	25-Aug	17
Western Wood-Peewee				0	1	1		J	2	1-Aug	4
				U		1			6		6
White-crowned Sparrow				•	6					6-Sep	
White-throated Sparrow				0	5				5	5-Aug	13
Wilson's Warbler		_	_		14	. .	_	1	15	7-Aug	15
Yellow Warbler	18	6	4	28	361	21	3	45	430	1-Aug	605
Yellow-bellied Flycatcher				0	1				1	24-Aug	3
Yellow-bellied Sapsucker				0					0	14	1
The specific output	40,000 F0904F145555			To a distri-	e812956.0 en	and the second second			THE PARK THE COST OF THE	化乳化硫异丙基化氢银矿 电磁流流流 医电动脉管 化硫	CORPORADORANTO INJECTORIO

APPENDIX B: Visitors to the Beaverh	nill Bird Observatory in 1998
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APPENDIX B: Visitors to the	Beaverhill Bird Observatory	in 1998
First Name	Last Name	Days
Deanna	Acorn	1
Jesse	Acorn	1
John	Acorn	2
Jeff	Adamyk	11
Marke	Ambard	1
Deena	Arnold	4
Barb	Beck	9
Jim	Beck	9
Alix	Berube	1
Josh	Bilyk	4
Gordon	Court	1
Nick and Helen	Crabtree	1
Christie	Dean	2
Al	DeGroot	6
Joyce	DeGroot	2
son	DeGroot	_ 1
Dick	Dekker	1
Mike	den Otter	1
Jason	Duxbury	4
Jim .	Faragini	5
Antoine	Frei	1
Ben	Gendire	1
Stephen	Glendinning	10
Robin	_Gutsell	1
Kevin	Hannah	4
Geoff	Holroyd	1
Jon	Hornung	5
Roby	Hornung	3
Kris	Kendell	9
Elsabe	Kloppers .	4
Janos -	Kovacs	1
Brian	MacDonald	1
Nora	MacKindrick	1
Brian	McCulloch	1
Melanie	McFadyen	1
Lloyd	Melin	1
Camila	Morcos	2
Theresa	Morcos	2
Jim	Nichols	3
Sandra	Nydokus	2
Elson	Olorenshaw	8
Dan	Osness	2
Melanie	Ostopowich	4
Marnie	Paquin	6
Bob	Parsons	2
EI	Peterson	1
Karen	Philips	1
Hardy	Pletz	1
Bryn	Politylo	13
Kenneth	Rice	1

	•		
Christoph Nikolus Warren Brad Cathy Claude Jacques Robert Lady Lisa Amy Helen Phil Sarah Cindy Dennis	Rohner Romaniuk Schaffer Shapansky Shir Sinz Sirois Swallow Takats Takats Trefry Trefry Trefry Trefry Verbeek Verbeek	2 1 1 2 1 4 4 1 4 26 5 3 1 5 2	
•		1	
Mark	Wendlandt	3	
George	Will	1	•
Bob	Wood	1 229	
130 snow goose visitors 138 snow goose visitors		1 · 1	
Brian		1	
DU-Kelly, Marcelle, Hillary		1	
Edmonton Bird Club Gary the repair guy		1	
lan		1	
Jiil Lea		1	
Milo		1 1	
Natasha		1	
		•	
		·	

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1998 Beaverhill Lake Sight Records

- compiled by Roy Fairweather for the Beaverhill Bird Observatory

197 Species Reported

This Sight Records Report is a compilation of all the bird sightings that were submitted to the Beaverhill Bird Observatory (BBO) for the year 1998. The bulk of the information comes from BBO Daily Totals that include census route (Natural Area) and banding numbers. This is the only source that gives comprehensive and continuous records from late April to the end of September. All other sightings are garnered from recognised birders who frequent the Beaverhill Lake area.

Fluctuating water levels continue to influence the bird life at Beaverhill Lake as the lake has rebounded with higher levels than the past couple of years. The lake shore however has lost most of the mud flats that have attracted the high numbers of shorebirds in 1995 and 1996. Shorebird sightings in 1998 were low in numbers as well as in diversity of species. For the first time this decade Hudsonian Godwit, Red Knot, Sanderling, Least Sandpiper, Baird's Sandpiper, Stilt Sandpiper and Long-billed Dowitcher were not recorded by anyone. Of course this doesn't mean they were not at the lake, it means no one recorded them but still it shows emphatically that numbers were down drastically. This is also reflected in that this was the poorest year for total species recorded - 197 - with all other years this decade above 200.

Offsetting this was the first recent record at Beaverhill Lake of a Long-billed Curlew (Bob Parsons on May 17). The only other records of Long-billed Curlew come from a casual reference in Salt and Salt's Birds of Alberta and a mention of extralimital breeding at Beaverhill Lake in The Atlas of Breeding Birds of Alberta. May 17 must have been a great shorebird day for Bob Parsons as he also recorded (either in person or with Brian Richie and Terry Thormin), 60 Whimbrels and an Upland Sandpiper. There was a sighting of a Black-necked Stilt by the BBO staff on May 14 (last recorded in 1992 and 1993). On June 5, Dick Dekker observed a Great Egret (last recorded 1987 and 1991).

Banding in the latter part of May, Dr. Edgar T. Jones recorded two Eastern Canadian species - Wood Thrush (first ever record at Beaverhill Lake, one was banded in Edmonton in October, 1997) and Black-throated Blue Warbler (only other record at Beaverhill Lake, Oct. 4, 1928 (S&S). Other noteworthy species that Dr. Jones banded (spring or fall) were: Northern Saw-whet Owl, Olive-sided Flycatcher, Willow Flycatcher, Great-crested Flycatcher, Brown Creeper, Brown Thasher, Bay-breasted Warbler, Connecticut Warbler and Fox Sparrow.

The BBO also had many interesting species in their mist nets. These included: <u>Brown Creeper</u>, <u>Chestnut-sided Warbler</u>, <u>Bay-breasted Warbler</u>, <u>Connecticut Warbler</u>, <u>Western Tanager</u>, and <u>Harris' Sparrow</u>. A <u>Varied Thrush</u> was banded on May 26. This was the second record at Beaverhill Lake with one other bird banded on Sept. 26, 1994.

A Wood Duck was recorded on April 15 by Bruce Dunlop. Wood ducks are rare, being recorded only in 1980, 1985 and 1996.

Other interesting reports were a Blue-winged/Cinnamon Teal hybrid by Michael Barr and a Baltimore/Bullock's Oriole hybrid banded by Christine Rice of the BBO. A partial albino <u>American Robin</u> was seen by Fred Whiley. Fred also saw 25 <u>Mountain Bluebirds</u> on Sept. 20.

Michael Barr of Ducks Unlimited noted that approximately 16,000 dead ducks were collected from Beaverhill Lake between mid August and September 16. These birds plus shorebirds, grebes and Northern Harriers died from avian botulism.

1998 Sight Records Report

Page 1:

1998 Sight Records Report	First	Last Spring	First Fall	Last	Status
Beaverhill Lake, Alberta	Sighting	Sighting	Sighting	Sighting	The same of the sa
196 Species Recorded				i	
Grebes	2	May reference of the Mills and the second second second second		*	
Pied-billed Grebe	May 9 (FW)			Sept 27(BP)	Breeding
Horned Grebe	Apr 18(BP)	June 4(BBO)	i i		Breeding
• Ped-necked Grebe	May 1(RF)			Sept 6 (BBO)	
• Eared Grebe	May 31(MSC)	June 7/88O)		Fair, a'tanat	Breeding
• Western Grebe	May 1(RF)	00110 7 (000)		Oct 7 (BBO)	
Pelicans and Cormorants	<u> </u>				·
· · · merican White Pelican	May 7 (BBO)	······································	<u> </u>	Sept 24(BBO)	Breeding
Couble-crested Cormorant	May 20(RF)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Sept 28(BBO)	
Herons ·	10009 20(111)	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE		Cabitentary	DIOCATING
American Bittern	May 4(BBO)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Aug 40/0EU	Breeding
ireat Blue Heron	May 11(RF)			Aug 12(RF)	
• Great Egret	June 5(DD)	A CONTRACTOR OF THE PROPERTY O	Topogram was a hort supply on committee the committee of	Oct 7(BBO)	Transient PR:June 7 - 11, 1987 (PD
			graphical professional professional and a second se	C+00/DDC	
Cocce	May 22 (BBO)		5 	Sept 22(BBO)	DI CO UINY
Coese	1 0:55:	M del 2005	1 001355	0.1.101555	T:1 O1 0 5-914:
Gr. White-fronted Goose	Apr 3(DD)				Transient - Spring & Fall Migrants
∑now Goose	Apr 3(BH)	May 9(FW)	Sept 15(BBO)	Oct 10(BBO)	Transient - Spring & Fall Migrants
Foss's Goose	*May 18(BP)	ga ganda aktua 1941 (1949) 111 (1851 (1871			Transient - Spring & Fall Migrants
Anada Goose	Mar 29(SK)			Oct 10(BBO)	Breeding
Seans	·		: : :	· !	
- Indra-Swan	Apr.4(JL/FW)	_May_19(BP)_	_\$ept 17(RF)	Oct 8(FW)	Transient - Spring & Fall Migrants
Perching Ducks				:	
Wood Duck	*Apr 15 (BD)		-	PR:N	1ay 3, 1980 (RE); May 29, 1985 (DD
Da bbling Ducks					-
adwall	Apr 12(BP)	AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO PERSON NAMED IN COLUMN T		Sept 26(RF)	Breeding
• Eurasian Wigeon	Apr 3(BH)	May 20(BP)			O(RK); May 8, 94(RD); April 18(RD)-
American Wigeon	Ap 4(JL)	and the second second	.,,,	Sept 26(RF)	
Mallard	Apr 3 (BH/DD)			Oct 7(BBO)	
Blue-winged Teal	Apr 3(BH)			Oct 6(BBO)	Breeding
Cinnamon Teal	*May 9(FW)	***************************************			Occasional sightings
Northern Shoveler	Apr 3(BH)			Oct 6(BBO)	
Northern Pintail	Apr 3 (BH/DD)	nanconario di Paliffoli, gaggagga nangaran na manatali, ga	And the second section of the section of t	Sept 27(BP)	
Green-winged Teal	Apr 4 (FW)	The state of the s		Sept 6(BBO)	
Clost wildog Levi	;			"Cebrolines"	· Diograms
Diving Ducks	AND MANAGEMENT WATER OF BUILDING WAS A SAME OF THE PARTY	то одника од бил од 186 г. од	ggy y transmir a var dila y gy y marantum mind dila dig v v trave a v di di	The second secon	The state of the
Canvasback	Apr 3(BH)	THE RESERVE TO SERVE THE PROPERTY OF THE PARTY OF THE PAR	<u> </u>	Sept 26(RF)	: Breeding
Redhead	Apr 3(BH)	**************************************		Sept 26(RF)	
Ring-necked Duck	Apr 5(BP)	May 20(RF)		copt.cotti./_	Breeding - in Beaver Hills to west
Greater Scaup	Apr 12(BP)	Apr 20(BP)	<u> </u>		Occasional sightings
Lesser Scaup	Apr 3 (BH)	Whi SAID!	i 	Sept 23(BBO)	
Sea Ducks	- API S COLL			Cept 23(DDA)	:
· White-winged Scoter	Many 40/000	Mari 40/00/01	g planta a tra e ser en al menor de la compensar en el francasione. E	AND THE PARTY OF T	: : Cossein sal sinhings
· Bufflehead	May 16(BBO)		CAMOCIDE	Oct 1/000	Occasional sightings Breeding - in Beaver Hills to west
The same and a part of the same and the same	Apr 19(BP)	Aug 9(BBO)	Sept 26(RF)		
Common Colinaria		June 4(BBO)		only using()	Breeding - in Beaver Hills to west
Common Goldeneye	Apr 3(BH)				
Mergansers				ALoopen or	· A · · · · · · · · · · · · · · ·
Mergansers Hooded Merganser	May 21(BBO)		Aug 23(BBO)	Sept 20(BBO)	Occasional sightings
Mergansers Hooded Merganser Red-breasted Merganser			Aug 23(BBO)	Sept 20(BBO)	Occasional sightings Occasional sightings
Mergansers Hooded Merganser Red-breasted Merganser Stiff-tailed Ducks	May 21(BBO) *Apr 19(BP)		Aug 23(BBO)	\$	Occasional sightings
Mergansers Hooded Merganser Red-breasted Merganser Stiff-tailed Ducks Ruddy Duck	May 21(BBO)		Aug 23(BBO)	Sept 20(BBO) Sept 6(BBO)	Occasional sightings
Mergansers Hooded Merganser Red-breasted Merganser Stiff-tailed Ducks Ruddy Duck Osprey, Bald Eagle and Harriers	May 21(BBO) *Apr 19(BP) Apr 12(BP)		The state of the s	Sept 6(BBO)	Occasional sightings Breeding
Mergansers Hooded Merganser	May 21(BBO) *Apr 19(BP)	Apr 12(BP)	The state of the s	Sept 6(BBO)	Occasional sightings

 Sharp-shinned. Hawk 	Apr 25(BBO)	•		Oct 27 (BP)	Breeding
Cooper's Hawk	Apr 25(BBO)		,	Sept-22(BBO)	Breeding
• Northern Goshawk			Sept 11(BBO)	Sept 28(BBO)	Occasional sightings - Winter transic
Buteos and Golden Eagle				-	
•• Broad-winged Hawk	*May 7 (BBO)		*Sept 2(FW)		Occasional sightings
• Swainson's Hawk	May 8 (BBO)			Sept 17(BBO)	Breeding
• Red-tailed Hawk	Apr 3(BH)		•	Oct 10(BBO)	: Breeding
 Rough-legged Hawk 	MArch 30 (RF)	May 6 (BBO)	Sept 17 (RF)	Oct 17 (DD)	Breeding
•• Golden Eagle	^Apr 6 (DL)		PR:April 13 & 22	2, 1990 (DN); A	pril 1, 1993 (DD); April 29, 1995 (RD
Falcons					
+ American Kestrel	Apr 12(BP)	Apr 20 (BP)	*Aug 15(BBO)		Transient
• Merlin	Mar 28(BP)	The state of the s		Oct 8 (FW)	Breeding
• Peregrine Falcon	*May 31 (MSC)			*Sept 22(BBO)	Transient

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1998 Sight Records Report

Page 2:

To Previous Page

1998 Sight Records Report	First	Last Spring	First Fall	Last	Status	
Beaverhill Lake, Alberta	Sighting	Sighting	Sighting	Sighting		
Grouse	ì					
Gray Partridge	*Feb 26 (BH)				Year round resident;	Breeding
Ruffed Grouse	Apr 25 (BBO)			Oct 7 (BBO)	Year round resident;	
Rails and Coots	······································		}		1	· · · · · · · · · · · · · · · · · · ·
• Yelkw Rail	*May 31(MSC)				Breeding	
• Sora	May 13(BBO)			Aug 28(BBO)		
+ American Coot	Apr 28(RF)	<u> </u>		Sept 26(RF)		·
Cranes	<u> </u>			COPILE(III)	l	1
• Sandhill Crane	Apr 23(RF)	May 19(BBO)	Sept 9 (BBO)	Oct 17(DD)	Transient - Spring &	Eall Migrants
Players		MAY (41000)	Copt v, DDO)		Transpire Opinia G	
Black-bellied Plover	May 24/EIMS	May 31(MSC)			Transient - Spring &	Fall Migrants
American Golden-Plover	*May 31 (MSC)				Transient - Spring &	
• Kildeer	Apr 3(BH)			Sept 6(BBO)	Breeding	MINIGIANA
Stifts and Avocets	Abi a(ni i)	, 		1 gehralppot	Diseding	
Black-necked Stilt	AM J. J. P.D.O.I	· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>	4077, May 0 100 /0	El. luna de no
American Avocet	*May 14 (BBO)	ļ	<u> </u>		ord 1977; May 3,'80 (F	E)! JUID 19'AS
The state of the s	Apr 23(RF)		<u> </u>	Sept 22(BBO)	r breeding	Peep Species
Sandpipers			<u> </u>	<u> </u>	<u> </u>	First Sighting:
Greater Yellowlegs	Apr 5(DD)	June 6(BBO)				Last Spring: M
· Lesser Yellowlegs		May 13(BBO)		Oct 6(BBO)		First Fall: June
Solitary Sandpiper		June 9(BBO)			Transient	Last Sighting:
• Willet	May 4(BBO)			Sept 22 (BBO)		
Spotted Sandpiper	May 20(RF)		*	Aug 23(BP)		
Upland Sandpiper	*May 17(BP)			PR: Ju	ily 20 & Aug 25, 1991	
++ Whimbrel	May 15(DD)	May 19(FW)	,		PR: May 13 to 3	Ofor 1991,1992
+++Long-billed Curlew	*May 17(BP)		R: undated (S&		First Recent Record	
Marbled Godwit			*June16(BBO)	*July 1 (BBO)		
Ruddy Turnstone	*May 31(MSC)		<u> </u>		Transient - Spring Mi	
Semipalmated Sandpiper	*May 31(BBO)		June 22(BBO)		Transient - Spring &	
White-rumped Sandpiper			*Aug 24 (FW)		Transient - Spring &	
Pectoral Sandpiper	*May 31 (MSC)		*Sept 22(BBO)		Transient - Spring &	
Buff-breasted Sandpiper		May 31 (MSC)		<u> </u>	Transient - Spring &	
Short-billed Dowitcher		May 9(BBO)			Transient - Spring &	Fall Migrants
- Common Snipe	Apr 25(BBO)	July 1(BBO)	*Aug 23(BP)	Oct 3(BBO)	Breeding	
Phalaropes		1.00 × 100, 40 miles		1		Dowitcher Spe
Wilson's Phalarope	May 8(BBO)	June 16(BBO)				First Sighting: 1
Gulls			**************************************			Last Spring: Ma
• Franklin's Gull	Apr 15(BD)			Sept 22(BBO)		First Fall: Aug -
Bonaparte's Guil	May 5(BBO)			Sept 27 (BBO)		Last Sighting: C
Ring-billed Gull	Mar 29(SK)			Sept 26(RF)	Breeding	cost oighting. C
California Gull	Apr 11(FW)	May 31(MSC)		Cop(20(11)	Breeding	
Herring Gull		10104 01(10100)	*July 19(BBO)	*Oct 6 (8BO)	Transient	Gull Species:
Tems			0019 13(000)	<u> </u>	TOTOTAL	First Sighting: 1
Common Tern	May 15 (BBO)			Aug 21(BBO)	Breeding	Last Sighting: (
Forster's Tern	May 19 (DDC)		July 20(BBO)	Aug 21(BBO)	Breeding	
Black Tern	May 20(RF)			Aug 17 (BBO)		
Doves	inay ZV(mr)			HUY 17 (DDU)	nigeniin	White Tem Sp
Rock Dove	bd-se OO/CIVI			Dec OT/ B//	Desading Vannes	First Sighting:
Mourning Dove	Mar 29(SK)	[0](1](2](DDA)		Dec 27(JM)	Breeding - Year roun	Last Sighting: .
• Mourning Dove Owis	May 11(RF)	July 14(BBO)		<u>.</u>	Breeding?	
THE RESERVE OF THE PROPERTY OF	M0/5500'			0111250	Dandle Vers	
• Great Horned Owl	May 9 (BBO)	1	B	Sept 11(BBO)	Breeding - Year roun	O 168DB91
· THE WARD E TAIL.	Mar OO/TT	ለnr ለ/₽ነስ/\	つからいしたい	* *	Mintor transions	

P SHORY CAR		OPPORT 1 :	AANINAL COUPERT
·· Northern Saw-whet Owl			t 485,95(BBO); Aug 25,96(EJ); April 2
Nighthawks	1		
•• Common Nighthawk	*July 11(BBO) PR:Aug 28,'88	3(BBO);May 31,92(SJ);May 30,	93 (MSC);June 2-13 (BBO)&Aug 18,9
Hummingbirds			
Ruby-throated Hummingbird	June 22(BBO)	Aug 13(BBO) Breeding
Woodpeckers	 If a recommendation of a define of the second control of the second control	and the second s	
Yellow-bellied Sapsucker	May 7 (BBO) May 29 (BBC))	Transient
 Downy Woodpecker 	Apr 19(BP)	Dec 27 (JM)	Year round resident; Breeding
 Hainy Woodpecker 	June 13(BBO)	Dec 27(JM)	Year round resident; Breeding
 Northern Flicker 	Apr 19(RF/MB)	Oct 6(BBO)	Breeding
	* .		
PR - Previously Recorded		3	
* no other record	e management of the second sec	i i	

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1998 Sight Records Report

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1998 Sight Records Report	First	Last Spring	First Fall	Last	Status	The second of th
Beaverhill Lake, Alberta	Sighting	Sighting	Sighting	Sighting		
lycatchers			-			
Olive-sided Flycatcher	(EJ) Spring	THE PART OF THE PA			PR: May 26/31	91 (BBO): Aug 14
Western Wood-Pewee	May 29 (BBO)		1	Aug 27(BBO)		
Yellow-bellied Flycatcher	*Aug 24(BBO)	The state of the s)		Transient	
Alder Flycatcher	May 26 (BBO)			Aug 20(BBO)		***************************************
· Willow Flycatcher				*Fall (EJ)	Transient;	
Least Flycatcher	May 15(BBO)	:	<u> </u>	Sept 15(BBO)		
Eastern Phoebe	Apr 19(BP)	¢ -: • : • : • : • : • : • : • : • : • :	1	Sept 1(BBO)		The state of the s
Say's Phoebe	*May 11(BBO)				Transient	*************************************
Great Crested Flycatcher			M.F. S. Levinson, V. M. Strawn, a St. Co., 25, 500, 100, 110, 110, 110, 110, 110, 11	*Fall (EJ)	Trns.; PR:July12,'8	7(RE)-Aug 19 94(
Eastern Kingbird	May 14(BBO)		idia - 2 - Commentana masken -	Fall (EJ)	Breeding	
Shrikes		er	Andrew Committee of the American	LL LILATEN		Traill's Flycat
Northern Shrike	Mar 28(BP)	Apr 5(DL)	Oct 8(BBO)	Dec 27 (JM)	Winter transient	4
Vircos	WALEDIDE)	Aprolocy	- CALORDICO) _	Dec 27 (0101)	Annoi degisent	(Alder or
At the state of th	ACneine /E II		47/DDOI	Av- COURDO		(rarely) Will
Blue-headed Vireo	*Spring (EJ)		Ann 11(DDO)	Aug 30(BBO)		First Sighting:
Warbling Vireo	May 20(BBO)		i OIDDO!	Sept 11(BBO)		Last Sighting: \$
Philadelphia Vireo	*Spring (EJ)	Contraction and the second	Aug 2(BBO)	Aug 28(BBO)		
Red-eyed Vireo	May 23(BBO)	**************************************	Secretaria succession successions	Aug 30(BBO)	. pteeging	**************************************
Jays and Crows						
Blue Jay	(الط) Spring*		Aug 25(BBO)	* * * * * * * * * * * * * * * * * * * *	Summer transient;)	
Black-billed Magpie	Mar 27(RF)		<u> </u>	Dec 27 (JM)		nd resident
American Crow	Mar 22(BP)		f	Oct 4(BBO)	Breeding	Andrew Annex Congression Congression Conference Confere
Common Raven	Apr 19(RF)		-	Dec 27(JM)	Breeding; Year rour	nd resident
Larks		Mariana (1997)			· · · · · · · · · · · · · · · · · · ·	
Horned Lark	Feb 22(BH)	May 31(MSC)			Breeding ·	the full account or construction and a company of the full account
Swallows						
Purple Martin	Apr 27 (Tofield)	May 31(MSC)			Breeding	
Tree Swallow	Apr 25(BBO)	1	1	Oct 4(BBO)	Breeding	
Cliff Swallow	May 9(FW)	May 31(MSC)			Breeding	
Barn Swalkw	May 14(BBO)			Sept 28(BBO)	Breeding	Mar-Au
Chickadees		***************************************	2			And the second s
Black-capped Chickadee	May 4(BBO)			Dec 27 (JM)	Breeding; Year rour	nd resident
titi oo) jagaagagaaga 1 1 Mil 1 talisa sa ayaa sa ayaa gaasa ka ayaa ka ayaa ka ayaa ka ayaa aya	- The same same same same		**************************************	COMMON STREET		
Nuthatches and Creepers				::::::::::::::::::::::::::::::::::::::		
Red-breasted Nuthatch	May 4(BBO)			Sept 27 (BBO)	Breeding?	
Brown Creeper			*Sept 15 (BBO)			PR: in Sept
Wrens .	ĺ			Taxan remarks		
House Wren	May 15(BBO)	C - Marchitekan, Farmanian (1973) 10 10 10		Sept 20(BBO)	Breeding	and a fine of the control of the con
Marsh Wren	May 8(BBO)	The second second in		Aug 28(BBO)		STATE AND AND A SERVICE TO
Cinglets		AMARINE ST. C.	7.7 ·			### V 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Golden-crowned Kinglet	*Apr 25 (BBO)	and a recommendation of the Management of the Comment	Aug 29(BBO)	Oct 7 (BBO)	Transient	TOTAL TOTAL CONTRACTOR OF THE STATE OF THE S
Ruby-crowned Kinglet	*Apr 25 (BBO)		Aug 29(BBO)	Oct 3(BBO)	Transient	heree on more common or an arrange grown to be
Thrushes	(حصارت الح		المامانات	المتاتات	TANOPIL	
Mountain Bluebird	Лаг 22 (ВН)(ВF	May 24/Me of	SAM JEZODOL	Sept 30(FW)	Brooding	i w i i w i i i i i i i i i i i i i i i
			sehr isrpen)	zehrant Lint		
Veery Gray-cheeked Thrush	May 25 (BBO)	2	G-07E 0	OH ÎZBBOL	Breeding	
	*May 19(BBO)		Fall (EJ)		Transient	
Swainson's Thrush	May 8(BBO)			Sept 12(BBO)		-
Hermit Thrush	May 9 (BBO)			Sept 28(BBO)		حداد اللاطعم
··Wood Thrush	*Spring (EJ)			01001000	First Record at Beau	ierniii lake
American Robin	Apr 5(DL)	** *	••	Sept 28(BBO)	preeding	
·· Varied Thrush	"May 26(BBO)				4.00	PR:
Catbirds					to the second	
^ ^-4Li-J	M00/00001	F 3 3/00/01			D	

j• Gray Catoiro	Wiay とり(ロロン) June 14(ロロン)	preeding.
Mockingbirds and Thrashers		
Brown Thrasher	*Spring(EJ)	PR:Breeding (EJ); 1988 (EJ); May 20, 1991 (EML);
Starlings		Aller and the second se
European Starling	Mar 27 (RF)	Oct 1(BBO) Breeding
Pipits	The second secon	•
American Pipit	10 to	Sept 28(BBO) Transient - Spring & Fall Migrants
Sprague's Pipit	"May 20(RF) "May 31(MSC)	Breeding
Waxwings		
Cedar Waxwing	May 31(BBO)	Sept 14(BBO) Breeding

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1998 Sight Records Report

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1998 Sight Records Report	First	Last Spring	First Fall	Last	Status
Beaverhill Lake, Alberta	Sighting	Sighting	Sighting	Sighting	
Wood Warblers					
• Tennessee Warbler	May 18(BBO)		····	Sept 28(BBO)	Transient - Spring & Fall Migrants
Orange-crowned Warbler	May 7 (BBO)		May 31(MSC)		Transient - Spring & Fall Migrants
• Yellow Warbler	May 6(BBO)			Sept 14(BBO)	
·· Chestnut-sided Warbler	"May 31(BBO)	PR:Aug	30.90 (SJ): Set	t21.91 (EML):	Aug 31,92 (EJ); Aug 16 & fall,94 (EJ
• Magnolia Warbler		June 4(BBO)	Aua 9/BBO\	Sept 20(BBO)	Transient - Spring & Fall Migrants
Cape May Warbler	*May 15(BBO)		Aug 11(BBO)		Transient - Spring & Fall Migrants
•••Black-throated Blue Warbler	*Spring (EJ)			L. T.	PR:only other record - Oct 4 1928 (S
 Yelkw-rumped Warbler 	May 7 (BBO)	May 30(BBO)	July 19(BBO)	Oct 3(BBO)	Transient - Spring & Fall Migrants
Black-throated Green Warbler			Aug 11/BBO		Transient - mainly a Fall Migrant
Palm Warbler	May 18(BBO)	Spring (티)	Aug 25(BBO)		Transient - Spring & Fall Migrants
•• Bay-breasted Warbler			'Aug 3(BBO)	And the second of the second o	PR: Spt 21, 91; Ag 31, 92 (EJ); Fa
Blackpoll Warbler	May 12(880)	June 20(BBO)			Transient - Spring & Fall Migrants
Black-and-white Warbler			Aug 8(BBO)		Transient - Spring & Fall Migrants
American Redstart		June 5 (BBO)			Transient - Spring & Fall Migrants
Ovenbird			June 29(BBO)		Transient - Spring & Fall Migrants
Northern Waterthrush	*Spring (EJ)	10100 22(000)	July 29(BBO)		Transient - Spring & Fall Migrants
+ Connecticut Warbler	vlay 28/29 (BBO	Juna 9/BBOL			Transient - Spring & Fall Migrants
Mourning Warbler		June 2(BBO)	h		Transient - Spring & Fall Migrants
Common Yellowthroat	May 21 (BBO)		Add co(DDO)	Sept 13(BBO)	
Wilson's Warbler	*Spring (EJ)		Aug 7(BBO)	Sant 19(BBO)	Transient - Spring & Fall Migrants
Canada Warbler	*May 31(MSC)		Aug /(DDO)	COPI IZ(DDO)	Transient - Spring & Fall Migrants
Tanagers	inay ST(MOO)	obing (m)			TRIBER OPING & Completion
•• Western Tanager			*Sept 11(BBO)		Transient - Spring & Fall Migrants
Native Sparrows			Sebrittees		Transent - obting & rail inglans
	Managering	A40/000	C404/0000	O-4 0/5/M	Tarriant Coming O Call Missanta
American Tree Sparrow	May 29(FW)	Abt Ja(DDO)	Sept 21 (BBO)		Transient - Spring & Fall Migrants
Chipping Sparrow	May 11(BBO)				
Clay-colored Sparrow	May 8(BBO)		Alua Olopol	Sept 9 (BBO)	Breeding
Vesper Sparrow	May 31 (MSC)	(لىSpring (EJ	'Aug 9(BBO)	*Aug 28(BBO)	
Savannah Sparrow	May 4 (BBO)		1 C4BBO1	Aug 28(BBO)	Breeding
• Le Conte's Sparrow	May 15(BBO)		Aug 5(BBO)	Fall (EJ)	Breeding
Nelson's Sharp-tailed Sparrow	May 19(FW)			Aug 2(BBO)	Breeding
•• Fox Sparrow	*Fall (EJ)			A 4000	PR: 1985; 1989; May14/Sep 24
Song Sparrow	Apr 19(RF/MB)		***************************************	Aug 4(BBO)	Breeding
· Cana Canana	14 404DE/MDI	<u> </u>	<u> </u>	. A 4000L	Breeding
Song Sparrow	Apr 19(RF/MB)			Aug 4(BBO)	
• Fincoju a Sbarlow	May 11 (BBO)		Aug 8(BBO)		Transient - Spring & Fall Migrants
Swamp Sparrow	May 13(BBO)		·	**************************************	Breeding
White-throated Sparrow	May 5 (BBO)			Sept 23(BBO)	
White-crowned Sparrow	May 4(BBO)		Sept 6(BBO)		Transient - Spring & Fall Migrants
++ Harris' Sparrow	4 451 11		*Sept 20(BBO)		PR: Jan 12'92(JN); Oct 3'92(J
Dark-eyed Junco	Apr(BH)	Apr 25 BBO	Sept 7 (BBO)		Transient - Spring & Fall Migrants
Lapland Longspur	market and a second contract of the contract of the	Apr 19(RF/MB)	THE PARTY OF THE P	*Dec 5(RF)	Transient - Spring & Fall Migrants; W
Snow Bunting	Jan 17(FW)	Apr 23(RF)	**************************************	*Dec 27(JM)	Transient - Spring & Fall Migrants; W
Cardinals		<u> </u>	housestand to a consumerable and on the consumer of the consumerable and the consumer of the consumerable and the	S S S A AMERICA PAR MADO ANNEL ANNOL	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE
Rose-breasted Grosbeak	May 15(BBO)	June 11(BBO)	*Aug 5(BBO)	1	Transient - Spring & Fall Migrants
Blackbirds and Allies	<u> </u>			[
Bobolink	May 24(FVV)	Aug 6(BBO)		To the form and in the property on the second	Breeding
 Red-winged Blackbird 	Apr 12(BBP)	Marine stage ago, on Arrows county & Chancel	The second secon	Aug 8(BBO)	Breeding
 Western Meadowlark 	Apr 19(RF/MB)			Sept 20 (FW)	Breeding - one very late sighting: Dec
Yellow-headed Blackbird	May 4(BBO)			July 15(BBO)	Breeding
Rushi Blackhird				ጎጉተ A/Fነስበ	Transient - Spring & Fall Migrants

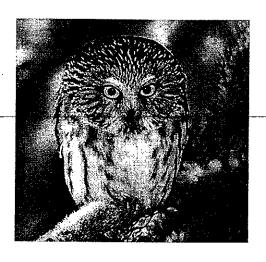
Rarely recorded species Status Unknown					
Regularly occurring species		The state of the s		Section of the first party in the section of the se	
+ House Sparrow	Mar 29(SK)			Dec 27 (JM)	Breeding
Old World Sparrows	de a la grapa de compagnica de la compag		t er antonia agricantana antonia	والمراجع والمستحدث	
· Evening Grosbeak		Plant and the second second and the district approximation (A)	For M. Millers M. Anna Santon C. Santilla and John Science (1987)	*Sept 28(BBO)	Transient - Winter transient
American Goldfinch	May 15(BBO)			Sept 27 (BBO)	Breeding
Pine Siskin		*June 7 (BBO)	July 12 (BBO)	Dec 27 (JM)	Breeding? Transjent - Spring & Fall I
• Purple Finch	May 6(BBO)	May 21(BBO)	Sept 5 (BBO)	. Sept 28(BBO)	Transient - Spring & Fall Migrants
• Pine Grosbeak	Oct 28 1997 (BBO)			*Dec 27(JM)	Winter transient
Finches and Grosbeaks					
Baltimore Oriole	May 17(BBO)			Aug 30(BBO)	Breeding
Brown-headed Cowbird	May 7 (BBO)			Sept 2 (BBO)	Breeding
· Common Grackle	*May 9(FW)	•	. ,	•	Transient
Brewer's Blackbird	May 6(BBO)			Sept 27 (BP)	Breeding
· Hook newworld			-		HANGER OPING OF ARRIVED

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Nocturnal Owl Surveys

in the Foothills Model Forest -

A Model for a Volunteer Program



Alberta Raptor Monitoring Program

Annual Report

Lisa Takats, Beaverhill Bird Observatory

December 1998

Acknowledgments

This work would not have been possible without funding and support from the following agencies:

Beaverhill Bird Observatory

Alberta Environmental Protection - Fisheries and Wildlife Management Division

Alberta Sport, Recreation, Parks, and Wildlife Foundation

Environment Canada - Canadian Wildlife Service

Weldwood of Canada, Hinton Division

Alberta Environmental Training Center

Foothills Model Forest

I would like to thank Jeff Adamyk, my research assistant, for his tireless work and enthusiasm on this project. Research input and support from the following people was greatly appreciated: Gordon Court, Steven Brechtel, Geoff Holroyd, Gord Stenhouse, Chris Spytz, Dan Farr, Jim and Barb Beck.

Special thanks to all the volunteers that participated in owls surveys.

Introduction

Call surveys were initiated in the Foothills Model Forest in 1995 as part of a study on Barred Owl ecology (Takats 1998). Broadcasts were also utilized to help locate nesting pairs, increase detection rates (Bibby *et al.* 1992, Devereux and Mosher 1984, Fuller and Mosher 1987), as well as collect information on location and abundance indices of owl populations (including other species).

The objectives for this project were to:

- -continue yearly surveys of owls in the Foothills Model Forest (to determine distribution and relative abundance of owls),
- -to provide detailed information on locations of each calling station, and
- -to initiate a pilot year for volunteer owl surveys.

Methods

Study Area

The Foothills Model Forest (FMF) is located in west-central Alberta, Canada, surrounding the town of Hinton, and includes the Weldwood of Canada Forest Management Area, William A. Switzer Provincial Park, the Cache-Percotte Forest, and Jasper National Park. Broadcast surveys were restricted to within 80 km of the town of Hinton. Volunteer surveys were conducted throughout Alberta in a variety of habitat types.

Transects

Ten 16 km transects were randomly located along roads within an 80 km radius of Hinton (Takats 1998) (see attached maps). Equally spaced broadcast stations were set along all of the transects at 1.6 km intervals, to reduce the chances of recording the same owls calling at different stations, but to ensure that few owls were missed. Roads had to be 4x4 truck accessible in winter and could not be major log hauling routes for reasons of safety for the researcher and improved detectability of owls. All station locations were plotted on maps and were GPS'ed.

Broadcasts

Broadcast surveys were conducted in 1997 and 1998. All stops began with a two minute listening period and ended with a five minute listening period. Only a random series of Barred Owl taped calls were played. The two minute silent listening period was followed by a series of six 20 second Barred Owls broadcasts with one minute silent listening periods after each broadcast. The total survey time was 15 minutes for each station (2 minutes + 6 x 20 seconds + 6 x 1 minute + 5 minutes).

The sequence of conducting transects was determined randomly during three night time periods, 20:00 to 23:59, 0:00 to 3:59, and 4:00 to 7:59. Counts were not usually conducted in inclement weather (heavy precipitation or strong wind), although if inclement weather started during the latter part of a survey route, the route was completed. Environmental conditions recorded at each stop

included: start time of survey, time of response (according to a clock), temperature (°C), wind speed, precipitation, cloud cover (%), moon phase (new moon and eight quarters), moon visible or obscured by cloud at each station, and snow depth (cm).

All owl calls were recorded as follows: time of call, broadcast interval (8 listening intervals), owl species, direction and distance from the observer, and behavior type. A sample of a field datasheet is included (Appendix A). The locations of calling owls were recorded on maps, to reduce the chances of recounting the same territorial owl, and to aid in the interpretation of owl distributions (Fuller and Mosher 1987). All data was entered into Microsoft Excel.

Volunteers were recruited by word-of-mouth and were sent a manual and tape. Data sheets were included in the back of the manual for the volunteers to send in (see Appendix B). Volunteers chose 10 km transects along roads with stations equally spaced every 1 km. A 2-minute silent listening period was followed by 20 second broadcasts of: Boreal, Great Gray and Barred Owl calls (for northern and foothills/mountains locations), and Northern Saw-whet, Long-eared, and Great Horned Owl calls (for southern locations). Each broadcast was followed by one minute of listening. Finally, two more monites of silent listening were added for a total of 8 minutes per station.

Results

A total of 267 and 282 stops were completed in 1997 and 1998 respectively. Seven species of owls were recorded during the surveys: Barred Owls, Boreal Owls, Great Gray Owls, Great Horned Owls, Northern Saw-whet Owls, Northern Pygmy Owls, and a Northern Hawk-Owl. In 1997, 84 calls were recorded which accounted for 70 territorial owls. In 1998, 142 owls called which accounted for 99 territorial owls. One Northern Hawk Owl was also recorded in 1998.

Table 1: Broadcast survey results showing the total number of calls from all species of owls in 1997 and 1998.

*Owl Species→	BA	WC	ВО	OW	GG	OW	GH	OW	NS	WC	NP	OW
Transect ↓	97	98	97	98	97	98	97	98	97	98	97	98
Gregg Lake	3	2	3	6	2	2	2	3	0	1	1	1
Cold Creek	2	2	5	5	0	0	1	0	2	7	0	İ
TriCreeks	1	1	0	4	0	0	1	0	2	2	1	0
Fish Creek	0	0	· 2	5	0	0	1	1	. 2	4	0	. 0
Pedley Road	1	0	0	0	0	.0	3	2	0	2	0	0
WildHay Road	2	1	1	0	0	0	0	0	1	5	0	0
Medicine Lodge	0	0	2	4	0	0	2	3	3	3	0	0
Blackcat Ranch	4	4	3	3	0	1	1	1	3	5	0	0
Prest Creek	0	0	0	0	0	0	2	1	2	2	0	0
Lynx Creek	0	0	3	3	0	1	4	5	2	6	0	0
Total	13	10	19.	30	2	4	17	13	17	37	2	2

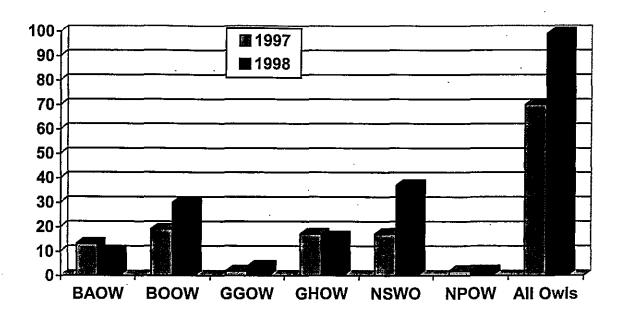


Figure 2: Total number of territorial owls that called in 1997 and 1998 in the Foothills Model Forest.

Table 2: Location (within 200 m) of each point on each transect by GPS (latitude/longitude).

Transect	Point	Latitude	Longitude	
Gregg Lake	1	53°31′ 52.1″	117°48′ 13.9″	
00	2	53°31′51.4″	117°49′ 11.3″	
	3	53°31′ 59.2″	117°49′ 17.5″	
	4 ·	53° 32′ 29.9″	117° 48′ 49.5″	
	5	53° 33′ 14.2″	117° 48′ 7.2″	
	6	53° 33′ 45.5″	117° 47′ 15.0″	
•	7	53° 34′ 20.6″	117° 46′ 14.3″	
	8	53° 34′ 56.1″	117° 45′ 15.5″	
	9	53° 35′ 26.6″	117° 44′ 34.7″	
•	10	53° 35′ 58.9″	. 117° 43′ 34.5″	
Cold Creek	1	53 ° 21′ 13.1″	117°34′ 29.5″	
	2	53° 20′ 31.7″	117° 35′ 15.7″	
	3	53° 19′ 48.4″	117° 36′ 14.2″	
	4	53° 19′ 7.3″	117°35′59.8″	
	5	53° 18′ 29.4″	117° 34′ 56.0″	
	6	53° 17′ 47.8″	117° 34′ 6.2″	
	7	53° 17′ 12.7″	117° 33′ 2.2″	
	8	53° 16′ 47.9″	117° 32′ 5.8″	
	9	53° 16′ 26.0″	117° 31′ 9.5″	
	10	53° 16′ 5.1″	117° 29′ 57.3″	

Table 2 (Con't.):

Transect	Point	Latitude	Longitude
TriCreeks	1	53° 15′48.0″	117° 19′54.5″
	2	53° 15′ 18.3″	117° 21′3.8″
	3	53° 14′57.0″	11 7 ° 22′17.3″
	4	53° 14′31.3″	117° 23′9.3″
	5	53° 14′3.7″	117° 22′5.3″
	6 .	53° 13′30.4″	117° 20′51.8″
	7	53° 12′35.7″	11 7 ° 20′0.7″
:	8.	53° 11′46.8″	117° 19′1.3″
•	9	53° 11′7.2″	117° 18′12.0″
•	10	53° 10′19.6″	117° 17′58.4″
Fish Creek	1	53° 27′ 56.1″	117° 34′ 6.2″
	2	53° 27′ 40.7″	117° 35′ 24.9″
	3	53° 28′ 6.6″	117° 36′ 28.2″
	4	53° 28′ 11.2″	117° 37′ 45.9″
	5	53° 28′ 45.3″	117° 38′ 46.9″
	. 6	53° 29' 29.4"	117° 39′ 18.2″
·	7	.53° 30′ 8.9″	117° 39′ 19.5″
	8	53° 30′ 53.6″	117° 39′ 51.4″
	9	53° 31′ 17.0″	117° 40′ 57.1″
•	10	53° 32′ 7.5″	117° 40′ 48.5″
Pedley	1	53° 25′ 53.2″	117° 32′ 18.4″
	2	53° 26′ 22.7″	117°31 24.3″
•	3	53° 26′ 54.5″	117°30 17.2″
•	4	53° 27′ 6.2″	117° 29′ 18.7″
	5	53° 27′ 37.3″	117° 28′ 6.2″
	6	53° 28′ 22.9″	117° 27′ 34.1″
	7	53° 28′ 58.8″	117° 26′ 37.3″
	8	53° 29′ 35.0″	117° 25′ 23.6″
	. 9	53° 29′ 2.0″	117° 24′ 6.0″
	10	53° 29′ 7.8″	117° 23′ 11.8″
Wild Hay	. 1	53° 41′ 46.5″	117° 40′ 15.6″
	2	53° 42′ 32.0″	117° 40′ 30.3″
	.3	53° 43′ 15.9″	117° 39′ 59.8″
	4	53° 43′ 59.6″	117° 39′ 40.6″
	5	53° 44′ 33.6″	117° 39′ 1.8″
	6	53° 45′ 10.9″	117° 38′ 13.6″
	7	53° 45′ 53.4″	117° 38′ 0.3″
	8	53° 46′ 20.8″	117° 37′ 8.6″
	9	53° 46′ 44.3″	117° 35′ 46.8″
	10	53° 46′ 42.6″	117° 34′ 21.8″

Table 2 (Con't.):

Transect	Point	Latitude	Longitude
Medicine Lodge	1	53° 34′ 50.7″	116° 58′ 49.3″
_	2	53° 35′ 27.3″	116° 59′ 46.8″
	3	53° 36′ 19.8″	117° 00′ 8.9″
	4	53° 36′ 54.6″	116° 59′ 20.0″
	5	53° 37′ 40.8″	116° 58′ 55.7″
	6	53° 38′ 7.6″	116° 59′ 43.6″
	7	53° 38′ 15.6″	117° 0′ 58.7″
	8	53° 38′ 33.6″	117° 2′ 18.6″
	9	53° 38′ 48.2″	117° 3′ 36.2″
	10	53° 39′ 26.0″	117° 4′ 37.1″
Blackcat .	1	53° 22′ 18.6″	117° 45′ 36.0″
	2	53° 21′ 36.5″	117° 46′ 29.9″
	3	53° 20′ 53.9″	117° 47′ 25.8″
	4	53° 20′ 29.6″	117° 48′ 40.2″
	5	53° 20′ 16.3″	117° 49′ 58.2″
	. 6	53° 20′ 16.9″	117° 51′ 3.4″
	7	53° 21′ 4.2″	117° 51′ 23.6″
	8	53° 21′ 43.8″	117° 52′ 19.1″
	9	53° 22′ 38.6″	117° 52′ 41.6″
	10	53°.23′ 21.4″	117° 52′ 54.5″
Prest Creek	1	53° 16′23.4″	117° 2′19.8″
	. 2	53° 16′57.9″	117° 2′32.6″
	3 .	53° 17′11.5″	117° 1′14.6″
•	4 .	53° 17′47.1″	117° 0′15.3″
	5	53° 18′23.4″	116° 29′54.7″
	6	53° 18′38.2″	117° 1′13.2″
	7	53° 19′13.9″	117° 1′8.4″
	8	53° 19′52.7″	117° 0′37.8″
	9	53° 20′37.2″	117° 0′24.8″
	10	53° 21′13.0″	117° 1′34.8″
Lynx Creek	1	53° 47′50.7″	117° 5′9.2″
•	2	53° 48′32.0″	117° 5′52.6″
	3	53° 49′20.0″	117° 6′24.2″
	. 4	53° 50′9.7″	117° 6′27.5″
	5	53° 51′0.4″	117° 6′20.3″
	6	53° 51′52.3″	117° 6′9.5″
	7	53° 52′46.6″	117° 6′3.2″
	8	53° 53′33.2″	117° 5′5.8″
	. 9	53° 53′36.0″	117° 4′0.6″
	10	53° 53′44.1″	117° 2′50.7″

Volunteer Surveys

The pilot year of the owl surveys was successful with 25 volunteers participating. Surveys were conducted on 15 transects throughout Alberta and six species of owls were recorded. Only one of the 15 transects did not have owls recorded on it. A total of 87 owl locations were discovered.

Table 3: Total number and number of transects each species of owl was recorded during volunteer owl surveys in 1998.

Species	Number	Number of Transects	
Barred Owl	6		
Boreal Owl	13	4	
Great Gray Owl	3*	2	
Great Horned Owl	12	. 5	
Northern Saw-whet Owl	46	11	
Northern Pygmy Owl	7	4	
Total Owls	87	, 15	

^{*} one owl recorded apart from transect

Discussion

Owl surveys are a good tool for collecting information on relative abundance of Barred, Boreal, Great Horned, and Northern Saw-whet Owls. Few Great Gray and Northern Pygmy Owl have been recorded during the surveys. Other methods may have to be investigated to collect information on these species. No Long-eared Owls have been heard, however this is most probably due to the distribution of the transects in the province.

Long-term owl monitoring programs need to be set up to ensure baseline data is collected on distribution, abundance, and important areas (high diversity/abundance or where rare species occur), to ensure populations are maintained. Longer-lived species can have natural population fluctuations that cannot be determined based on a few years.

Future goals include:

- 1. Conducting owl surveys in the Foothills Model Forest for a fifth year,
- 2. Continuing volunteer owl surveys in 1999, with many new individuals participating,
- 3. Standardizing owl surveys across Canada and writing a national protocol booklet for surveying nocturnal owls.
- 4. Writing a booklet for landowner's on boreal raptors.

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Owling Transect Data Sheets

Date:		Observ	er(s):			Transe	ect:		
Time Inter	val: 1 2	3 Vis	sit :	_		_	<u>.</u>		_
Owls Special BAOW-base BAOW-base NSWO-sa NPOW-py GHOW-gr GGOW-gr NHOW-base LEOW-load	arred oreal w-whet ygmy reat-horned reat gray awk-owl	3 after third 4 after four 5 after fifth 6 after sixth 7 five minu	broadcast nd broadcast I broadcast th broadcast broadcast	er	l sing 2 sing 3 silen 4 silen	nse Type s, does not app s, approaches atly approache ttly approache ocalization	s, sings	Tree Spe Aw aspe Pb balsan Bw pape Sw white Sb black Pl lodge Lt taman Fa subal	n poplar r birch e spruce spruce pole pine ack
Point: 1		e:				/ind:			
	Cloud co	ver:%	Moon phase:		S	now depth:			
Time	Interval	Owl Species	Direction	Dista	nce	Response	Comme	ents	
								· ·	
						·			
				_					<u>.</u> :
	<u>-</u>								
Point: 2		e:% ver:%	Temp.: Moon phase:			7ind: now depth:		· · · · · · · · · · · · · · · · · · ·	
Time	Interval	Owl Species	Direction	Dista	nce	Response	Comme	ents	
								<u></u>	

Owling Transects Data Sheets-Visit 1

Date:		Observ	/er (s):	·		·
Location	: <u> </u>		Starting Temp	0.:	End Temp.:	Snow Depth:
NPOW - GGOW - NHOW - LEOW -	- barred - boreal - saw-whet	liste 1 duri broa 2 duri broa 3 duri broa 4 fina	2 min. silent ning ng/after first dcast (20 sec. ng/after secon dcast (20 sec. ng/after third dcast (20 sec. 1 2 min. silent ning	1 sin	nse Type igs, does not proach gs, approaches ently approaches, gs ently approaches, vocalization	Moon Phase Codes 0 – new moon 1 – first quarter 2 – half moon 3 – full moon 4 - last quarter
	scale trans t Number	lations to wind s Wind Speed Less than 2 2 to 5 6 to 12 13 to 19 20 to 29 30 to 38	in km/hr	Indicators of Smoke rises wind direction Wind felt on Leaves, smal	on shown by smoke face, leaves rustle I twigs in motion oose paper; small	
Point: 1		nrt Time: r:%]		1:	Prec.:	
Time	Interval	Owl Species	Direction	Distanc	e Response	Comments
Point: 2		art Time: oud cover:		d: n phase:	Prec.:Car Odo	meter:
Time	Interval	Owl Species	Direction	Distanc	e Response	Comments

Hoo were they looking for?

Study checks up on owl numbers in Alberta

BY ROSE SAUNDERS **ECHO STAFF**

Beauvais Lake Provincial Park was part of an informal owl survey in April and May.

Doug Dolman and Ebel Bernd. both from Lethbridge, voluntarily headed out to the park in a vehic cle to listen to owl calls and said record results.

"We listened to owls at about a pl theory which one kilometre interval," said Dol is really near? man, adding they spent about six. She added or seven minutes at each stop making 10 stops in the park and

Lisa Takats, a non-game highly were recording st-with the Beaverhill Bird Observatory supported by Alberta was really exempted by Alberta Sport Recreation Parks The Barrett and Wildlife Foundation. she's been working on organizing the survey in her spare time.

"We were interested in frying to get information on distribution of owls in the province said Takats, who did a study in the Hinton area on the noctional

in some type of owl study and this lation in Alberta.

of owls

ars on its chesiand isn't found. ear human dwellings or where human impac mecies harder to find

nton area on the noctional all of the results which are ds.

Takats said she thought it database system which can would be good to get volunteers pump out maps, and other useful from across the province involved information about the owl popu-

Takats said the data will also be used to produce a protocol don't booklet for owl monitoring to be assed by researchers in the field.

She added whether or not the ing program runs next year depends in funding from the provincial government. That funding pays for tapes, advertising and booklets *f*år volunteers.

> As for the survey at Beauvais Lake Dolman said they found

some interesting results.

The first time they went out in late April they seven heard saw-whet owls, and one great horned.

The_second time they surveyed in late May - results were opposite. Dolman said . they heard eight great horned

owls and only two saw-whet

Lisa Takat

Complete data from the survey should be compiled within the next couple of months but so far results show six species of owls reported: the northern saw-whet owl, northern pygmy owl, boreal owl, barred owl, great gray owl, and great horned owl.

Beauvais prepares Parks D

BY DAVE DOWN **ECHO EDITOR**

Final touches are being put on Canada's Parks Day in the Pincher Creek area.

Pincher Creek, has a full day planned for families and adventure seekers to mark the July 18 celebration.

With a scavenger hike and family activities, all day, it is

and

APPENDIX E

Researching Amphibian Numbers in Alberta At Beaverhill Lake Natural Area



Christine Rice September 1998 Affiliations: Beaverhill Bird Observatory Alberta Conservation Association Alberta Environmental Protection

Abstract

The design of the Beaverhill Lake R.A.N.A. site is unique since it consists of three separate groups of drift fences. Wood Frogs (Rana sylvatica), Boreal Chorus Frogs (Psuedacris triseriata) and Tiger Salamanders (Ambystoma tigrinum) were captured in the pitfall traps as well as observed or heard throughout the Beaverhill Lake Natural Area. The data collected illustrates the directional migration of amphibians to and from their breeding ponds. A total of 200 captures of amphibians were made over 69 nights of open traps from May 11th to August 7th, 1998. Wood Frogs were by far the most common species trapped. It is suggested that the study site be moved to Sora Pond so trapping occurs closer to open water and totally encompasses the breeding pond, consequently making the data more comparable to other R.A.N.A. sites.

Acknowledgements

I thank the Alberta Conservation Association, Alberta Environmental Protection, Alberta Sport Recreation Parks and Wildlife Foundation, University of Alberta and Beaverhill Bird Observatory who together make this research possible with their generous grants and support. Many thanks to Lisa Takats and Kris Kendell for setting up the drift fences and pitfall traps early this spring. I would especially like to thank Lisa Burt and Shannon Quinn for their invaluable contributions (namely sweat, blood and tears) and dedication to the project.

Introduction

R.A.N.A. (Researching Amphibian Numbers in Alberta) is a province wide effort to collect long-term data on amphibian populations and educate the public about the ecology and plight of amphibians. It allows data to be collected by means of public participation as well as more formal scientific research.

The use of drift fences and pitfall traps allows non-vocal species (i.e. Salamanders) to be surveyed, and provides detailed data on the population fluctuations, estimates of breeding population size and productivity of resident amphibians. Research sites have been established throughout Alberta in order to monitor amphibians in a variety of ecological regions and collect data on all native amphibian species. Such long-term standardized data is required so fluctuations in numbers and distributions of amphibian populations may be monitored, and reasons for their declines discovered.

Monitoring sites provide valuable hands-on interpretation opportunities for increasing awareness and encouraging involvement in the R.A.N.A. project. Slide presentations and newsletters are other options for public education since not all research sites are easily accessible. Public volunteers are encouraged to document their observations of frogs, toads and salamanders. Although the accuracy of this data relies on the ability of the volunteer to identify the amphibians of their area with confidence, volunteer participation augments scientific data and fosters a positive attitude towards amphibians and their wetland environments.

Methods

Beaverhill Lake Natural Area was selected as a R.A.N.A. monitoring site to represent the aspen-parkland eco-region of Alberta. This lanscape of rolling gravel piles and potholes is termed "knob and kettle" topography (Dekker 1998). A variety of research is conducted within the natural area but long-term avian migration monitoring is the principal project. Permanent infrastructure and seasonal staff make this site a convenient and logical place to initiate amphibian monitoring.

The magnitude of both Beaverhill and Lister Lake makes the set up of completely encompassing drift fences unfeasible. Instead, three separate groups of fencing were installed along the east shore of Lister Lake approximately 10-30m from the water's edge in grassland-willow complexes, (refer to map). The 3 groups are spaced approximately 350m from each other near an already existing path. Each group consists of 3 separate sections of drift fence approximately 10m long and 25m to 50m apart. The result was a grand total of 36 pitfall traps each constructed from one and a half 1.1kg size coffee cans and fitted with "funnels" made from plastic margarine containers. Each can was furnished with a rock for the amphibians to climb on and long stick so trapped small mammals could escape.

The drift fences are clearly visible along the main path leading from the public parking area to the weir. Anyone entering the natural area is sure to notice the traps. Signs were posted at each strip of fencing with a brief description of the project, contact names and phone numbers for further inquiries.

Data collection was the responsibility of the staff at the BBO (Beaverhill Bird Observatory). Pitfall traps were checked daily, (except for a few instances when staff was absent), and in the evening in order to accommodate the early morning schedule of bird banding.

The time of the trap check was recorded and all captured amphibians were identified, weighed, measured from snout to vent and released approximately 3m either to the south or north of the drift fences. The location of capture was recorded by assigning each pitfall trap an individual number, as well as reporting it's relation to the lake with an "I" or "O", (Inside fence/Outside fence). In addition, the presence or absence of a mid-dorsal stripe on wood frogs was noted.

Water temperature and pH at the edge of Lister Lake was recorded only five times over the course of the field season. These measurements occurred at the water's edge just east of drift fence "I". The shallow and stagnant nature of the lake results in only minor fluctuations in water quality making this low frequency of testing sufficient.

No additional sites in the area were investigated. Casual observations of amphibians and their vocalizations were recorded and submitted on Alberta Amphibian Monitoring Project datasheets.

Results

Wood Frogs (Rana sylvatica), Boreal Chorus Frogs (Pseudacris triseriata), and a Tiger Salamander (Ambystoma tigrinum) were caught in the pitfall traps, (Table I). This represents all of the species of amphibians observed or heard within the Beaverhill Lake Natural Area during the study period.

Table I: 1998 Capture Totals at the BBO R.A.N.A. site

Species Caught	Number of Individuals
Wood Frog (Rana sylvatica)	182
Boreal Chorus Frog (Pseudacris triseriata)	17
Tiger Salamander (Ambystoma macrodactylum)	1
Total Captures	200

The site was opened for its initial three-week period on May 11th and shut on June 2nd. 74 of the 92 amphibian captures were wood frogs. The only Tiger Salamander captured all summer occurred during this period on May 17th.

During this initial trapping period an entire drift fence (Fence "E") and an additional pitfall trap (Trap "F4") had to be shut down due to their proximity to active anthills. Ants had depredated a wood frog and a boreal chorus frog trapped in can E3 and the closures were made to prevent any further deaths. The total number of pitfall traps was reduced to a maximum of 31 for the remainder of the season.

The site was re-opened on June 19th and shut on June 26th due to employee absence from the natural area. During this brief period not a single amphibian was captured.

The final trapping period ran for an extended period of 5 ½ weeks from June 28th until August 7th. During this time only wood frogs were captured even though boreal chorus frogs could still be heard calling throughout the natural area. Heavy rainfalls during the first two weeks of July caused flooding of our pitfall traps, most often to fences A, B and C. Cans flooded with water are easily escaped by amphibians and were recorded in our data as "malfunctions".

Occasionally a drowned vole would be discovered in the cans despite the presence of sticks for them to climb out on. Approximately a total of 15 voles were found dead during the 69 nights that the traps were set. As well, on windy days it was difficult to obtain accurate weight measurements using Pesola Scales. Near the end of the season a digital scale was often used.

Public education concerning this R.A.N.A. project was minimal. No formal public presentations or tours were made at the BBO site. Interpretation opportunities were taken advantage of when BBO staff encountered visitors either along trails or at the bird banding station. As well, information on RANA and the volunteer monitoring program was handed out at the Snow Goose Festival held in Tofield, near the lake. "Croaks & Trills" newsletters (Alberta Amphibian Monitoring Program) as well as information sheets concerning the R.A.N.A. project were made available to visitors at the BBO banding lab. Staff handed out approximately 6 packages containing more detailed information, instruction for data collection, data sheets and cassette tapes of native amphibian and reptile vocalizations to keen visitors wishing to join the network of volunteers contributing data to the project. The RANA fences were set along a well used trail. Signage described the fences were for and how to get more information (Appendix). Approximately 200 people were exposed to the RANA project throughout the summer.

Conclusions

The data collected shows two pulses of amphibian movements over the summer, (Figure 1). This corresponds to the expected migration movements of amphibians towards breeding ponds, lag in terrestrial activity while breeding occurs and eggs are laid, and dispersal of young away from their natal ponds (Goin *et al.*, 1978).

The direction of migration of the captured wood frogs is clearly demonstrated when pitfall traps are differentiated based on their relation to the lake, (Figure 2). During the initial trapping period the majority of frogs were captured in the cans on the outside of the fences indicating a mass movement towards the water. During the last trapping period most frogs were captured along the inside of the fences. These individuals were mostly small young-of-the-year lending further support to the idea of dispersal away from natal ponds.

The Boreal Chorus Frog populations within the natural area were not accurately represented by capture totals. Even though the majority of frogs trapped were Wood Frogs, Boreal Chorus Frog vocalizations were by far more numerous and common throughout the summer. This misrepresentation is most likely due to the location of the trapping arrays which are quite a distance from open water at the edge of an aspen bluff. This is the type of habitat where the more terrestrial Wood Frog would be expected to outnumber the more marsh-bound Boreal Chorus Frog (Russell & Bauer, 1993).

Recording weather conditions should become a mandatory component of data collection. This is simple data to collect and would add further information as to the movement cues and patterns of resident amphibians.

Sora Pond should be considered as the future site of R.A.N.A. trapping at Beaverhill Natural Area. It is a permanent water body located in-between the banding observatory and the weir. It is known to have breeding populations of both Wood Frogs and Boreal Chorus Frogs (from spring vocalizations), and Tiger Salamanders are occasionally found roaming along periphery trails. It is small enough to be completely encircled by drift fences, thus making the data collected more comparable to other R.A.N.A. sites. This amendment would require hiring a summer employee whose sole responsibility is the R.A.N.A. and is therefore dependent on funding.

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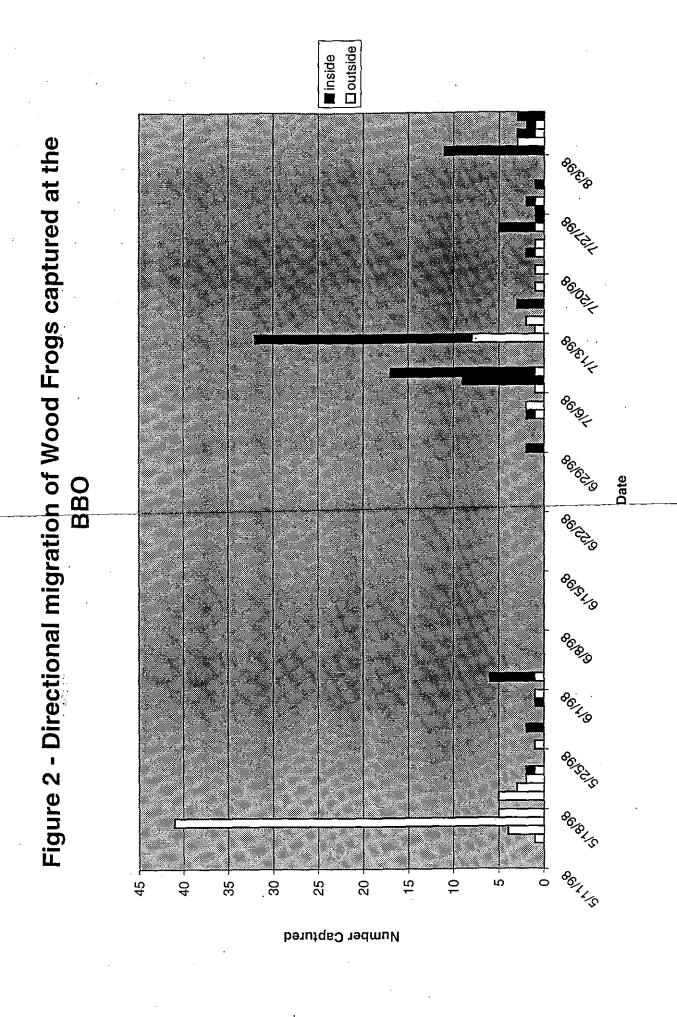
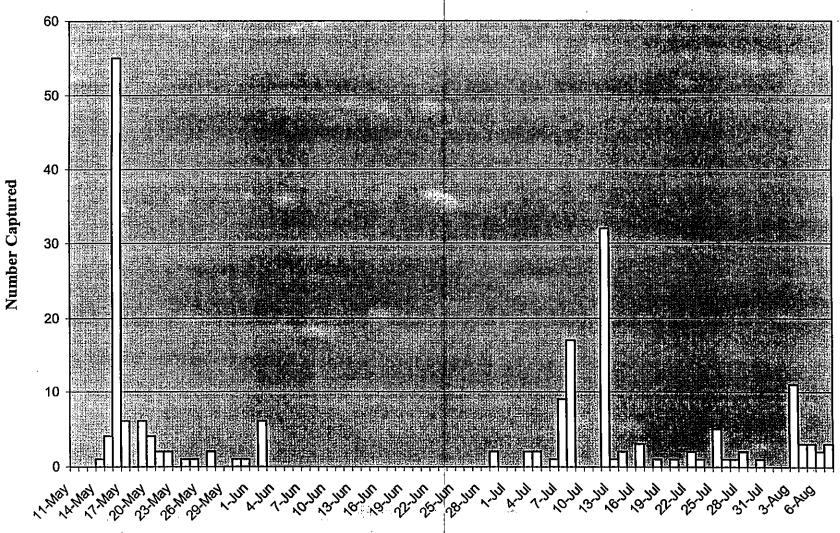


Figure 1: Schedule of total amphibian captures at Beaverhill Lake



Date

Volume 11, Number 1

The Return of the Great Gray Owl

February, 1998

Great Horned Owls Nesting

The Great Horned Owls just south of St. Alberta are the first to nest again. The female was seen off and on the nest at the beginning of February. On February 9, she was observed sitting tight on the nest. Ahhh, spring is in the air . . .

-Al DeGroot

Summary of Fall Report

This fall was a season of firsts for the BBO. Fall banding activities were extended until October 30, and never before has the observatory collected consistent data this late into the season. Between July 30 and October 30 a total of 1820 birds were caught and 1601 of these were banded. The number of birds captured peaked the beginning of September and we had a record-breaking day at the BBO. On the eleventh of September 195 birds were netted and 153 were banded, the majority of which were Yellow-rumped Warblers (115 caught, 99 banded).

The diversity and number of species caught mirrored the pulse of fall migration and drastically declined into October. It was very interesting to watch the shift in species caught as the season progressed. The resident warblers and flycatchers of August made way for the great influx of migrating warblers (Continued on page 2)

A visitor from the Northwest Territories was interested in seeing some owls and hawks during his visit to Edmonton. On a cool, gray day on November 16, Christine Rice and I headed out to Sherwood Park to pick up Mark Bradley for birding trip. The raptor banders had warned me that there was not much to see, and not to get our hopes up. As we pulled out of Sherwood Park, we discussed the difference in the environmental conditions from last year. There was very little snow on the ground, and the temperature was considerably warmer. These two factors could contribute to owls spending more time back in the forests, and further north in Alberta.

Just north of Gibbons we found our first raptor, a beautiful adult Bald Eagle soared over the highway. As we continued, the Rough-legged Hawks began making appearances. Six Rough-legs were seen, adult males and females and juveniles. North of Fort Saskatchewan, an adult male Snowy Owl was observed.

Finally, at about 3:30 p.m. we finally saw our first Great Gray Owl. Last year, they had seen so many Great Gray Owls, they lost count. We drove a little past the feathered figure sitting on the post. Now we go fishing. Christine took the salmon net and lure out of the truck and walked slowly towards the owl. As she neared, the owl turned its head and stared icely at her. The lure was dropped and almost immediately the Great Gray flew in.

(Continued on page 2)

The Return of the Great Gray Owl (Continued from page 1)

The net was placed over the owl as it landed, the talons were quickly secured, and the owl was extracted from the net. The pale tips on all of the wing feathers gave away the age, a hatch year bird. Measurements of the wing chord, tail length and foot pad were taken and the bird banded, photographed, and released.

On January 5 I received a phone call from Trevor Roper, a raptor bander. He asked for the band number of the Great Gray we had banded in November. I quickly pulled out my field book, and confirmed the owl he caught earlier in the day to be the one we had banded. It had moved a considerable distance, over 14 kilometers.

-Lisa Takats

Summary of Fall Report (Continued from page 1)

... in September, which were replaced by more northern breeders and our ever-resilient winter residents in October.

Other events of special interest went beyond what showed up in our mist nets. On September 21st the Hollywood career of the BBO was launched when a film crew visited us from the Life Channel's program "The Bird Guy". Footage of banding, mist netting, raptor trapping and the natural beauty of Beaverhill Lake was shot for an upcoming episode featuring the observatory. Elson Olorenshaw, Barb Beck, Lisa Takats and Christine Rice all earned their banding permits this fall, and numerous volunteers contributed their time and energy to aid banding activities. All in all another successful and fun field season!!

---Christine Rice

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Takats, L. and C. Rice. 1998. The 12 hours of migration. In press for the Edmonton Naturalist.

MEETINGS/EVENTS

Prairie Conservation and Endangered Species Conference
February 19-22 at the Saskatoon Inn in Saskatoon Saskatchewan
For information contact website at: http://www.extension.usask.ca/confer/ences/pcaes.html

Alberta Chapter of the Wildlife Society, 9th Annual Meeting March 13-14 at the Best Western Inn in Calgary, Alberta For information email Beth McCallum at bighorn@ycs.ab.ca

<u>Federation of Alberta Naturalists: Private Land Conservation Workshop</u>
March 14-15 at the Northern Forestry Centre, 5320-122 Street, Edmonton

Forest Industry Lecture Series, Department of Renewable Resources

March 26 at 3 p.m. in Room 2104, Dentistry Pharmacy Centre, University of Alberta

Speaker: George Weyerhauser, Jr., President and CEO of Weyerhaeuser Canada, Ltd.

Snow Goose Festival April 25-26 at Beaverhill Lake, Tofield, Alberta For information contact Vanita Eglauer or Jackie Kallal at 662-3269 or Jim Lange at 455-7021

CONTACTS

Beaverhill Bird Observatory
P.O. Box 1418, Edmonton, Alberta, T5J 2N5 (membership \$10) - Chairperson-Jason Duxbury (430-1694)

Calgary Bird Banding Society
247 Parkside Cr. S.E., Calgary, Alberta, T2J 4J3 (membership \$12) - President-Doug Collister (271-3741)
- Treasurer-El Peterson (271-3741)

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

NEXT WILLET ISSUE

Material for the forthcoming newsletter should be sent to: Lisa Takats, editor BBO, 3535-105 A Street, Edmonton, Alberta, T6J 2M6. PHONE 437-3860, FAX 422-9865, EMAIL ltakats@rr.ualberta.ca. Any information on banding, monitoring activities, field trips, and activities related to the Beaverhill area are welcome. Next newsletter deadline: April 1, 1998.

THE WILLET SMILE

THE WILLET SMILE



You'll find it's true: you'll eatch more
files with honey than vinegari:

Volume 11, Number 2

April, 1998



1998 SNOW GOOSE FESTIVAL

The 1998 Snow Goose Festival is set for April 25 and 26 this year. The usual walking and bus tours will be leaving from Tofield at various times throughout the days. The Tofield arena will have displays from all over Alberta. This year looks to be a record year for visitors. With an early spring thanks to El Niño, the Snow Geese, waterfowl, raptors, and other birds are back early. There have been thousands of Snow Geese spotted along the shores of Beaverhill and Lister Lakes. We hope are can make it to this years festival. For more information contact:

Vanita Eglauer or Jackie Kallal, Beaverhill (Tofield) Nature Center – 662-3269 Bob Parsons, Edmonton Bird Club – 488-1344 Jim Lange, Edmonton Bird Club – 455-7021 Jason Duxbury or Josh Bilyk, BBO – 430-1694

Observatory Up and Running

On April 19, the Beaverhill Bird Observatory lab and bunkhouses were opened for the season. Six hardy young people (Jason Duxbury, Josh Bilyk, Jim Faragini, Jeff Adamyk, Jill, and Lisa Takats) headed out to Beaverhill to haul in the supplies for the year. We were welcomed to the observatory by 1000's of Snow Geese, White-fronted Geese, and Canada Geese.

The lab experienced an inundation of mice over winter, and clean-up-was exceptionally long. However we were happy to see that an owl had once again roosted under the deck of the lab, and a killsite was found in the vicinity of the lab.

Other birds recorded during our trip included: a variety of waterfowl species, grouse, raptors, shorebirds, and songbirds. The wood frogs and boreal chorus frogs were trilling in the distance, and we welcomed four visitors during our day out. A special sighting was the Eurasian Wigeon near the turn-off to Mundare Beach. We hope to have many new visitors and many old friends visit us at the observatory this year. It's SPRING!!! ---Lisa Takats

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The 1998 Baillie Bird-a-thon	3
The Canadian Migration Monitoring Network.	_5

A Message From The Chair

Well, we've all made it. Another winter has come and gone. Not that this year's winter was all that tough (especially for those of us who conducted field work on Burrowing Owls in southern Texas!).

The winter has seen the addition of Jim Nichols to the BBO board of executives, as well as Lisa Takats taking on the role of Vice-Chairman. The changes to the board of directors took place at the Annual General Meeting that was held in November at the John Janzen Nature Centre. The BBO has also been involved in other meetings as well. The second annual Alberta Bird Bander Workshop was held from February 27-March 31, 1998. This three day event was co-sponsered this year by the BBO, the Edmonton Natural History Club and the Edmonton Bird Club. The first day saw guest speaker Richard Cannings from British Columbia present an evening slide show on the natural history of British Columbia.

The Bird Bander Workshop on Saturday, February 28, was a chance for representatives from Lesser Slave Lake Bird Observatory, the Calgary Bird Banding Society, Last Mountain Lake Bird Observatory (Saskatchewan), and Delta Marsh Bird Observatory (Manitoba) to present their 1997 results. Other speakers provided talks on banding shrikes, shorebirds and raptors. A very informative day!

On the third and final day of the three day event, raptor lovers created a convoy 9 cars long following owl bander Ray Cromie and raptor expert Gordon Court. We set off north of Edmonton in search of raptors. Everyone was disappointed in not seeing Great Gray Owls or a white phase Gyrfalcon which was known to be in Edmonton, but we did manage to see 7 Snowy Owls, including 3 pure white males. The highlight of the day was when, to everyone's delight, Ray Cromie managed to catch and band a Snowy Owl! The whole weekend was a great success, and there are already plans being made for the 3rd Annual Bird Banding Workshop for February, 1999.

Soon the Bohemian Waxwings, Black-capped Chickadees and House Sparrows that normally visit the tree outside my window in Edmonton will be replaced or joined by Cedar Waxwings, Dark-eyed Juncos, White-throated Sparrows and American Robins. I can also look forward to the occasional Myrtle Warbler that will visit the same tree on its northerly migration. Beaverhill Lake will soon be the birding hot spot for migrating waterfowl such as Tundra Swans, White-fronted Geese and Snow Geese. And speaking of migration, another banding season is just around the corner! Get those banding pliers and binoculars ready, as another year of bird research is about to begin.

The BBO will once again be participating in programs that monitor bird migrations and the productivity of local populations. While the BBO has been participating in the Migration Monitoring program since 1992, this year will mark the first year that the BBO is part of the newly formed Canadian Migration Monitoring Network. An initiative of Birds Studies Canada, the network should provide a way for the BBO to communicate and combine our results with many other bird banding stations across Canada who are also participating in the Migration Monitoring program.

The summer months will again bring with them the MAPS program (Monitoring Avian Productivity and Survivorship). The staff at the observatory will be responsible for observing the activities of local breeding species such as Clay-colored Sparrows, Yellow Warblers, Least Flycatchers and Tree Swallows.

While monitoring local breeding birds can be interesting, the daily suspense of what may migrate throughout the area is what many birders look forward to. We can only hope we will be treated to some of the species that were gracious enough to get caught in the mist-nets. Last year's capture of Gray Catbird, Gray-cheeked Thrush, Townsend's Warbler, Black-throated Green Warbler, Chestnut-sided Warbler and Nashville Warbler are all possibilities during this year's migrations, you just have to be out at the observatory on the right day!

There are many other activities to be looking forward to this spring. The combination of an early spring, the occurrence of the 6th Annual Snow Goose Festival in late April and excellent tour guides

should make the hiking tours to the observatory the most memorable to date. Sign up early... contact the John Janzen Nature Centre today!

The 1998 Beaverhill Bird Observatory Crepe Spectacular, as held the previous two summers, is currently being planned for Sunday, June 7. We hope to have "Master Chef" Janos Kovacs returning to make his world famous crepes for all those lucky to get out to the observatory on that day.

The month of May will also mean it will be time for the annual Baillie Birdathon. An event that is always something that BBO members look forward to. A chance to go birding and raise money for bird research at the same time! Watching birds for money... now doesn't that sound appealing?

I would personally like to invite all of our members, especially new members, out to the observatory this year. Come see the activities that you are making possible with your support. Come meet the summer staff, always personable and knowledgable. They are sure to make you birding experience so much more fun!

See you at the observatory!!

--- Jason Duxbury, Chairman

The 1998 Baillie Birdathon

Normally, raising money for a non-profit organization such as the Beaverhill Bird Observatory is an labourious task. However, every year comes a chance to raise money to run the observatory while having fun at the same time. How is that possible you ask? By participating in the 1998 Baillie Birdathon.

There are two ways you can help. The first is to directly take part as a birder. Participating means rounding up your friends and family and asking them to pledge you just like a walk-a-thon or skate-a-thon, only get them to sponsor you per bird species seen instead of the numbers of laps you do. If you think your birding skills are not good enough to participate this way, you can still go out with people who know their birds and enjoy the experience with them. The bonus is while searching for the birds, you will be raising money for the birds you are watching. Finally, if you would rather be a sponsor, your support is the most important as the Birdathon is not possible without you! The following people are those who supported the Beaverhill Bird Observatory in the 1997 Baillie Birdathon:

Ursula Banasch

Barb and Jim Beck

Michael Best

Gerry Beyersbergen

Josh Bilyk

Orest and Judy Bilyk

S. Birkholz

Blake Bunting

Wendy Calvert

Blaine Campbell

Rick Chabaylo

R.C. Clayton

G.M. Clothier

Gordon Court

Cordon Court

Loney Dickson

Jeff Dixon

Jennifer Dober

Brad and Cathy Duxbury

Al DeGroot

Fred and Karen Duxbury

Jason Duxbury

Michelle Edinga

Roger Edwards

Jim and Sharon Faragini

Shauna Faragini

Dan and Laurie Farr

Cam Fraser

Karen Garvin

Jay Gedir

Gary and Judy Gnam.

Tim Hibbard

Geoff Holroyd

Brain Hornby

Jeff Hoyem

Anne and Bill Kiel, Sr.

Bill and Gong Kiel

Elsabe Kloppers

Bernie Konopelky

Glen Kuhn Skyline Hikers Bob McClymont Ryley Speers Gerald McKeating Fred Sproule Sandy and Tom Nakashima Donald J. Stiles Pat Nord Ian Stirling Marilyn and Ray Nydokus Lisa Takats Sandra Nydokus Ed Telfer Rich Olorenshaw Don Thomas Kim Pearson Helen Trefry Rusk and Gail Redmond Bruce Treichel Hal Reynolds Jim Vollmershausen Isabelle Richardson Lori and Colin Wenner Petra Rowell Jonathon Wilkinson Hans Schinke Bill Wishart Carl and Kari Scholz The Beaverhill Bird Observatory greatly appreciates all those that supported and participated in the 1997 Baillie Birdathon. Your gifts help keep bird research possible at the BBO and across Canada. Stay tuned, your chance to help out in 1998 is quickly approaching! If anyone is interested in raising money for the Beaverhill Bird Observatory by becoming a first time participant in the Baillie Birdathon, contact Jason Duxbury at 430-1694 (jduxbury@gpu.srv.ualberta.ca) for your starter kit and more information. If you would like to participate by pledging for one of the Beaverhill Bird Observatory teams, fill in the form below and return it without money. Once the Birdathon has been completed you will be contacted for your donation. Donations of \$10 or more are

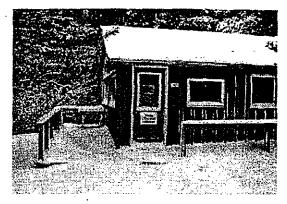
eligible for tax receipts. THANKS FOR YOUR SUPPORT! Oops! Forgot to mention; for those that go
out and raise money by birding, you get a really coool T-shirt from Bird Studies Canada!
To support the Beaverhill Bird Observatory in the Baillie Birdathon, pick a team you would like to support and fill out the following form and return it to the address below. Thank you very much.
Return to: Beaverhill Bird Observatory, Box 1418, Edmonton, AB T5J 2N5
Check one:
Team 1 - The Travellers (They can be called Team 1 because they saw the most birds last year!) - Jason Duxbury - Lisa Takats - to be announced
Team 2 - The Experienced Ones - Geoff Holroyd - Gerry McKeating - Pat Crossely
Team 3 The Grumpy Old Men - Elson Olorenshaw - Jim Faragini - Al DeGroot
You would like to pledge the following PER BIRD SPECIES SEEN by a team:
25¢\$1.00Other (\$)
OR You would like to pledge a Flat Rate of \$

The Canadian Migration Monitoring Network - Jason Duxbury

For a few days in snowy Ontario during the period of March 17-22, 1998, I was the Beaverhill Bird

Observatory's representative at the first meeting of the Canadian Migration Monitoring Network (CMMN). A meeting called to discuss criteria for stations wanting to be members and what the network could do for the members once the guidelines have been finalized.

The meeting was held at the Old Cut Station, one of three bird banding stations of the Long Point Bird Observatory. (This facility had 5 bedrooms, 3 bathrooms, a kitchen, dinning area, living room, an attached visitors centre and a detached banding laboratory. Something for the BBO to work towards!). The first day was set aside for each station to give a station description and some data. Reports were given from:



Rocky Point Bird Observatory (Vancouver Island)
Lesser Slave Lake Bird Observatory
Beaverhill Bird Observatory
Calgary Bird Banding Society
Last Mountain Lake Bird Observatory
Delta Marsh Bird Observatory

Thunder Cape Bird Observatory (Near Thunder Bay, Ontario)
Prince Edward Point Bird Observatory (N. Shore of Lake Ontario)
Long Point Bird Observatory (Near Port Rowan, Ontario)

DILITODS CEVALORY (I VOAT POIT INO WALL, OTHAL

Toronto Bird Observatory
Innis Point Bird Observatory (near Ottawa, Ontario)
Grand Manan Bird Observatory (on an island near New Brunswick)
Brier Island Bird Migration Research Station (near Nova Scotia),
Atlantic Bird Observatory (on 2 islands near Nova Scotia),
Whitefish Point Bird Observatory (Michigan)

The remainder of the days were used to discuss topics such as: membership criteria (egs. minimum species monitored, standardized written protocol), membership benefits (egs. sharing results, belonging to a national organization), data submission and analysis, possible other projects (eg. age/sex migration phenology projects), bander training, volunteer recruitment, fund raising, the Baillie Birdathon, publications, a discussion of the new Pyle banding guide, and an explanation of the structure of Bird Studies Canada and how the BBO and the CMMN fits in. The final day was reserved for each station to present a brief station description to the council members of Bird Studies Canada.

The meeting was a great way of getting connected with the other observatories across Canada. Many great ideas were exchanged (there were even some that Long Point might incorporate!). With further development and communication, the string of CMMN observatories across the country have the potential to become an effective single migration monitoring system since many possible migration flyways are being covered.

While the meetings were interesting, the activity out the windows proved to be distracting. Not only were there eye-catching winter residence species such as Northern Cardinals visiting feeders, the part of the country where Long Point Bird Observatory is located was already experiencing the spring migration. Also seen around the station were:

Species List

Tundra Swans Canvasbacks Redheads

Lesser and Greater Scaup Ring-necked Ducks Northern Pintails

Mallards

American Black Ducks American Widgeon Eurasian Widgeon Common Mergansers Hooded Mergansers Ring-billed Gulls Bonaparte's Gulls American Woodcock American Robins Tufted Titmouse Carolina Wren Eastern Towhee

American Tree Sparrows

Dark-eyed Juncos Common Grackles

Brown-headed Cowbirds

Red-winged Blackbirds

House Finches
Pine Siskins



Owling for Eastern Screech owls would turn out to be a bust, as a snow storm kept the owls from coming out in the open. Still, the area around Long Point in March provides some great birding opportunities. The environment provided by the weather and bird watching in the area would not be seen at Beaverhill Bird Observatory for another month!

All in all, the meeting was a great success. Now that the momentum of the CMMN has begun, it was decided that the next meeting should take place as soon as possible. The next meeting is tentatively set for September of 1999 at the Delta Marsh Bird Observatory. Hopefully, there will be less snow in Manitoba than in southern Ontario!



PUBLICATIONS OF INTEREST

Takats, L. and C. Rice. 1998. The 12 hours of migration. Edmonton Naturalist.

CONTACTS

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- Treasurer-El Peterson (271-3741)

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Volume 11, Number 3

October, 1998

THE 1998 SUMMER CREW

by Lisa Takats

The 1998 Beaverhill Bird Observatory staff had many new projects to participate in this year. Christine Rice returned to the observatory after a trip to Costa Rica, refreshed and ready to serve as bander in charge. Two new faces could be seen at the observatory, Lisa Burt and Shannon Quinn, who are both university students (Figure 1).

Together with a host of volunteers, the staff banded birds, counted dragonflies and butterflies, and caught amphibians. This Willet issue overviews some of the projects the BBO participated in this summer.



Figure 1: Photo of Lisa Burt and Shannon Quinn.

YEAR 1 OF THE RANA PROGRAM by Lisa Takats

The RANA (Researching Amphibian Numbers in Alberta) project was being run full time this year. This study is being conducting through the Alberta Conservation Association, Alberta Environmental Protections, and the University of Alberta Biological Sciences Department.

(Con't. page 3)

ODONATES AT BEAVERHILL

by Christine Rice

Beaverhill Lake Natural Area is a renowned as a birding hotspot but . . . take a closer look. Those featherless flying creatures whizzing pase you as you stroll along the trails, stand over the weir, and patrol the net lanes are worthy of your regard.

This summer, adorned with my butterfly net and binoculars, I conducted a survey of the Odonates (dragonflies and damselflies) of Beaverhill Lake. Beginning in May I would venture out in the afternoons on a set route to document the species, habitat, and behavior of the Odonates I encountered. These acrobatic creatures never failed to amaze and entertain, as I watched them defend territories, find mates, lay eggs, hunt, eat and be eaten.

A sunny and warm dry day at the natural area offeres excellent opportunity to do some dragonfly and damselfly watching. Damselflies hold their wings together behind their backs, which makes them easily recongmizable from the dragonflies who hold their wings perpendicular to their larger and chunkier bodies. These flying wonders belong to the scientific order Odonata but are affectionately known by enthusiasts as Odonates.

At first glance these creature seem quite peaceful, but they are in fact, perfectly constructed carnivorous machines! Each wing is under independent muscle control, which allows them to fly in any direction. Their huge compound eyes...

(Con't. page 2)

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ODONATES (Con't from page 1)

... provide acute almost 360 degree vision for tracking their insect prey and their legs serve as an in-flight basket for catching and holding their meal.

The characteristics that make Odonates such fierce predators also make them a challenge to capture. Patience and fast reflexes must accompany your butterfly net. Once in the hand the beauty of Odonates is undeniable with their reflective eyes, subtly tinted wing veins or striking colors and thorax patterns.

The simple addition of a net (and the reflexes of a ninja) to our regular birding attire of binoculars and field guides adds a new challenge to your outdoors experience. Next time the opportunity arises, don't pass up your chance to ogle an Odonate!



Table 1: List of species of Odonata identified in 1998 at Beaverhill Lake Natural Area.

Suborder	Common Name	Scientific Name	
Zygoptera (Damselflies)	Taiga Bluet	Coennagrion resoluutm	
	Prairie Bluet	Coennagrion angulatum	
	Boreal Bluet	Enallagma cyathigerum	
	- Marsh Bluet	Enallagma-ebrium —	
	Common Spreadwing	Lestes disjunctus	
Anisoptera (Dragonflies)	Green Darner	Anax junius	
	Four-spotted Skimmer	Libellula quadrimaculata	
	Boreal Whiteface	Leucorrhinia borealis	
	Variable Darner	Aeshna interrupta	
	Variegated Meadowhawk	Sympetrum corruptum	
	Saffron-winged Meadowhawk	Sympetrum costiferum	
	Cherry-faced Meadowhawk	Sympetrum internum	
	Black Meadowhawk	Sympetrum danae	
	*American Emerald	Čordulia shurtleffi	
·	*Spiney Baskettail	Epitheca spinigera	

^{*}still being verified

THE 2ND ANNUAL BEAVERHILL BUTTERFLY COUNT

by Barb and Jim Beck

A good time was had by all at the 2nd annual Beaverhill Bird Observatory butterfly count. This count is a North American Butterfly Association count. It is similar to the Christmas Bird Counts in that the count takes place in a 15-mile diameter circle (except nobody has to start at midnight hooting for butterflies). The center of the BBO count is the BBO lab building. The results of the counts are gathered from all over North America and tabulated in an international database and published yearly in the NABA Butterfly Count publication.

Christine Rice was the compiler for this year's count. She was joined by the internationally known TV star, our own Nature Nut, John Acorn, His wife Deena Stockburger, and the littlest Nature Nut, Jesse Acorn. Lisa Burt (BBO staff), Cindy Verbeek, Jim Beck and myself were also a part of this adventure. The group worked from

about 10 a.m. until noon around the lab building, then after lunch split up with the main part of the group working our way to the weir and the Becks heading off to some of the surrounding farm country. We met back at the BBO to wind things up at 4:45 p.m. The weather was clear and warm with light to moderate wind. Participants each donated \$3 US to help defray costs to the North American Butterfly Association of processing and publishing the data.

The butterflies were not collected and kept. Some butterflies were identified using binoculars, while others were netted and released after identification. A total of 2409 individual butterflies representing at least 16 species were recorded (Table 2).

Table 2: Species and numbers of butterflies recorded during the 2nd annual Beaverhill Butterfly Count.

Species	Number	Species	Number
Western White	8	Meadow Fritillary	2
Cabbage White	15	Lesser Fritillary sp.	3 .
White Sp.	87	Northern Pearl Crescent	192
Clouded Sulphur	58	Satyr Comma	2
Pink-edged Sulphur	2	Mourning Cloak	11
Sulphur sp.	1753	Milbert's Tortoiseshell	1
Greenish Blue	19	White Admiral	3
Blue sp.	12	Common Ringlet	12
Great Spangled Fritillary	31	Common Wood-Nymph	161
Aphrodite Fritillary	2	European Skipper	13
Greater Fritillary sp.	21	Skipper sp.	1

The appearance of European Skippers in the Beaverhill area is new. They did not exist in Alberta before 1987 but have now become the most common butterfly in the Edmonton, Devon-Calmar, and Strathcona counts. They appeared for the first time this year in the Opal, Elk Island and Beaverhill counts. They were not found in the other counts listed below. These butterfly counts are a good way to document changes in butterfly populations.

There were several additional Alberta counts held this year. Among them Edmonton, Opal, Devon-Calmar, Darwell, Strathcona, Elk Island, Freeman Lake (near Sawn Hills), Calling Lake, MacKay-Nojack, Chinook (near Hinton), Spondin (near Hanna). Next year there will a Fort Saskatchewan count. Anybody interested in participating next year should contact Barb Beck (Email: barb.beck@ualberta.ca or phone: 435-2065). You do not have to know your butterflies to participate, come out and learn. John Acorn has given us the tools learn easily with his book Butterflies of Alberta. If anybody has friends in Calgary they might want to quietly point out to them that "Calgary Doesn't Count!" (you must say it with a grin).

By getting a web of counts established across North America, running them each year and storing the data in an international database, we can start to get some idea of changes in butterfly populations. We only wish somebody had documented the butterflies when we were kids in California. Only a fraction of what we used to see still remains, but there is no documentation on how much or what has been lost. So grab those butterfly nets and become a kid again, or bring some kids out to learn how to identify butterflies!

RANA (Con't. from page 1)

The objectives of RANA are to: 1) collect long-term information on amphibian populations and 2) to provide information to the public on the importance of amphibians in the environment. Three species of amphibians were captured in the pitfall traps this year: Wood Frogs, Boreal Chorus Frogs, and one Tiger Salamander.

The 1998 Beaverhill Bird Observatory Crepe Spectacular

by Jason Duxbury

June 4 marked another very successful pancake breakfast for the Beaverhill Bird Observatory. The breakfast is becoming a long awaited event each year out at the lab. What started with simple

pancakes has now evolved into a culinary delight thanks to "Master Chef" (and bird bander) Janos Kovacs. Instead of pancakes, when Janos took over the head chef position, he started making the most delicious crepes which he stuffs with preserves, nuts and even chocolate. To enter the bush out at the observatory and be treated with such a tasty breakfast is an experience more and more people are being treated to each passing year. In 1998, 21 people ate over 50 crepes.

The breakfast is always a great opportunity for members to meet the staff and to keep in touch with the activities being conducted in the natural area by the BBO. Those joining in for the crepes were also able to watch bird banding by staff and members. The capture of a rare Yellow-bellied Flycatcher was also a treat.



Master Chef Kovacs mass producing crepes.

With the increasing number of participants, it has been observed that the "early birds are getting the worms". Those arriving late are starting to realize that tardiness may result in a lack of crepes to consume. Therefore, next year when the date is set for the 1999 Beaverhill Crepe Spectacular, try and get there early and beat the rush (before the chocolate runs out!). Thank you Janos for another great breakfast and to all; see you next summer!

The hungry mass who ate Janos' crepes.



LONG POINT MEMORIES

by Sarah Trefry

It's 6:30 and we six young birders who have been accepted to the Doug Tarry Program for young ornithologists are up and getting ready for our first day of banding at Long Point Bird Observatory, Ontario. The first thing we do, after shooting out the door (which some of us do with a little more enthusiasm than others at this time of the day), is put up the mist nets. After the first 15 minute check the nets reveal nothing, but by the second check we have a yellow warbler, a catbird, and a robin. Among the more common species we also trapped some birds that some of us have never seen before, a Tennessee Warbler and a Northern Cardinal. So begins the first exciting day of mist net trapping.

During banding we learned a lot of neat techniques at Long Point, such as skull ossification- a technique to age a bird by looking at the skull structure growth. After lunch and a fun swim which we repeated every day afterwards, we went on different birding trips including the sewage lagoon to see some shorebirds and gulls. It appears the best birding places are often not the most scenic. Some of our other fun afternoon activities included a field trip to a marsh, preparing birds as study skins, owling in the dark (we heard a Barred Owl and an Eastern Screech Owl) and searching the web-site for bird activities, and it was not just the bird life that drew our attention. For example, I had never seen a firefly before, and leopard frogs were much more numerous than I was used to. On Tuesday we went to the tip of Long Point and had a really fun boat ride and swim. During our tour we saw Black-billed and Yellow-billed Cuckoos.

We also had three slide presentation, including one very interesting one on Tundra Swans. We did two very educational reports on adaptations of birds, and learned a lot about birds that some of us had never seen before. The whole workshop was very fun, and though seeing new birds and handling birds was a very fun experience, that was not all. I have now met young people who have similar interests as me, who are great people, and who are now my friends. I am sure we will keep in touch.

Acknowledgments

I would also like to sincerely thank all of the people who provided us with this wonderful opportunity. Doug Tarry was very thoughtful to have put his money into the effort of teaching young people more about ornithology. Thanks to Geoff Holroyd for his letter of reference and for telling me about the program. I would like to thank all of the people who were at Long Point and taught us while we were there, but special thanks to Christine Jamieson and Jul Wojuasslin for being so patient with us. The Beaverhill Bird Observatory reimbursed my airfare for which I am grateful. We all had a great time learning and hope to return some day.

Please see page 6 for information on this program.

CONTACTS

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

NEXT WILLET ISSUE

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