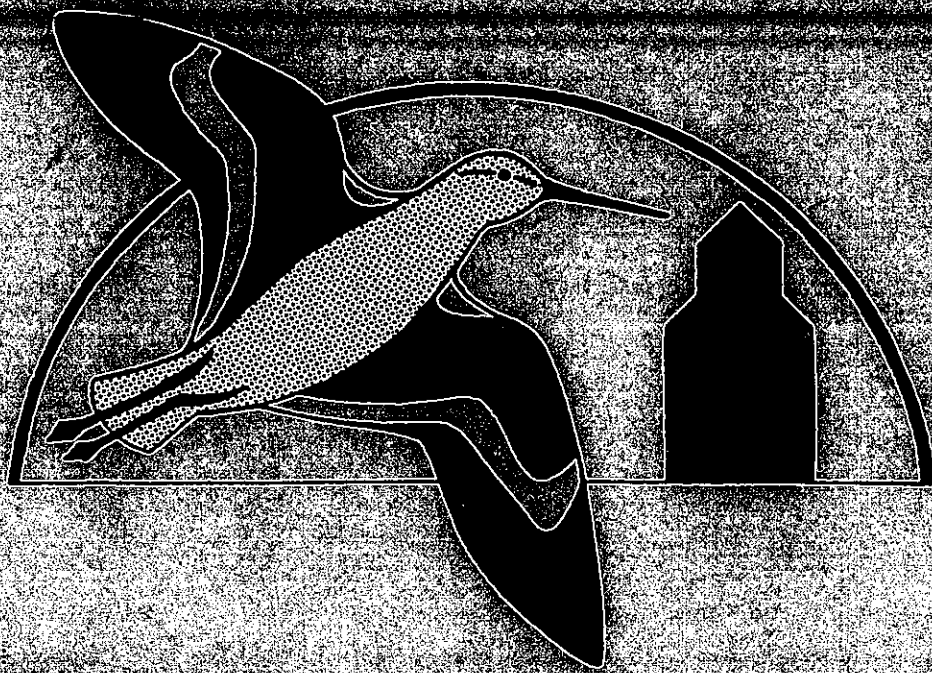


# Beaverhill Bird Observatory

1991

Annual Report



Published by:  
Beaverhill Bird Observatory Society  
P.O. Box 1418  
Edmonton, Alberta  
T5J 2N5

November, 1992

Editor: Stefan Jungkind

## Introduction

Beaverhill Lake is a large shallow body of water located in the Aspen Parkland zone of Alberta, approximately 70 km SE of Edmonton. For years the lake has enjoyed an international reputation for its spectacular waterfowl and shorebird numbers during migration. Birders from throughout the province visit the lake year after year to look for species that are rarely seen elsewhere in the province. Two bird and nature books have been devoted entirely to Beaverhill Lake - Robert Lister's "Birds and Birders of Beaverhill Lake" and Dick Dekker's "Prairie Water". Beaverhill Lake has been declared a "National Viewpoint" by the Canadian Nature Federation, and recognized as an internationally important wetland site (under the RAMSAR agreement). Also, a Natural Area (province of Alberta) has been established that includes the south east corner of the lake and Dekker and Pelican Islands.

With all this appreciation of it's birds and wildlife, it is not surprising that a number of organizations have a strong interest in the activities and developments at the lake - the Edmonton Bird Club, Edmonton Natural History Club, Ducks Unlimited and the Beaverhill Lake Nature Centre to name a few.

The Beaverhill Bird Observatory Society operates a field station at the southeast corner of the lake and acts as the volunteer steward and custodian for the Natural Area. With it's activities and publications over the last 8 years, the BBO has established itself as a focal point for songbird and other wildlife monitoring and research at Beaverhill Lake.

## Editor's acknowledgement

I wish to thank Geoff Holroyd, Debra Belmonte, Elson Olorenshaw, Roy Fairweather, Alan Hingston, Peter Dunn and Joan DeGeer for their contributions to this report. Geoff Holroyd also provided a thorough and very helpful review of a preliminary draft, and Alan Hingston, Helen Scheibel and Colin Ryan assisted in printing the figures, graphs and text. My wife, Debra Belmonte helped to compile and input material and was a big support throughout the production of this report. Lastly, I wish to thank Edgar Jones for once again providing me with his yearly birdbanding summary from Beaverhill Lake.

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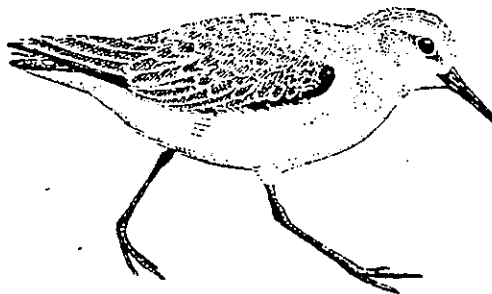
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## Part I - Directors' reports

### Message from the Chairperson - Geoff Holroyd

The Beaverhill Bird Observatory has established itself as a leader in songbird migration monitoring in western Canada. Its many varied activities are contributing to our knowledge of birds as well as providing opportunities for many people to appreciate and learn about birds. This year the executive spent considerable effort defining the goals of the BBO. Although our constitution spells out our objectives, we needed to consider how we could accomplish them and whether all of our current activities were helping us to achieve these objectives. As the federal government increases its awareness of songbird conservation by providing staff to the Canadian Wildlife Service under the Green Plan, the BBO's role will increase. We also looked at the BBO's role beyond the lake to our global concerns. With the loss of tropical habitats, many of the species that we band are losing winter habitat. The BBO's major contribution will be to monitor migrant populations in Alberta. As part of a system of migration monitoring stations across Canada, the BBO can provide key data on the number and condition of migrant songbirds.

To encourage new banders, Steve Lane and I taught two bird banding courses that were organized by Debra Belmonte and Jack Clements, Wild Bird General Store. Several other people helped with the field sessions. Debra Belmonte did a terrific job raising funds through the garage sale and organizing our first Baillie Birdathon. She also coordinated our display at the John Janzen Nature Centres' Seed 'n Feed and the Hastings Lake Environment Fair. Roy Fairweather coordinated the May Species count and Tofield Christmas Bird Count and compiled sight records from the lake for the year. Stefan Jungkind coordinated the many other activities at the field station. BBO member Dick Dekker published "Prairie Water", an excellent book on Beaverhill Lake that is now out of print!

In addition, the ongoing functions were maintained: Newsletter editor Debra Belmonte; Treasurer Elson Olorenshaw; Secretary Steve Lane; Project Coordinator Stefan Jungkind; Maintenance Jim Faragini; Vice Chairperson Petra Stubbs.

I thank everyone who helped in so many ways to continue the BBO's work. Your support as a member is greatly appreciated. I encourage you to become more active with the observatory. Just a few hours help each year will make a great difference to our research work and ultimately the conservation of birds. To paraphrase a famous quote "ask not what birds can do for you, ask what you can do for birds". Think globally, act locally.

### Field Director's Report - Stefan Jungkind

The BBO's first summer since 1986 without employed field assistants provided the organization with a large challenge to maintain the projects on par with previous years. A group of dedicated and enthusiastic volunteers met the challenge with an outstanding effort that made the 1991 season one of the best. On behalf of the BBO, I wish to thank the many individuals (including a number of new comers) who put in considerable time and effort to keep the projects going, in particular the individual project coordinators:

As the Sight Records Compiler for the BBO, Roy Fairweather erected a sight records deposit box at the natural area gate, provided checklists for submission of sightings, contacted regular birders at Beaverhill Lake and compiled a terrific report on the 1991 sightings (Fairweather, 1992) - bravo Roy!

Elson Olorenshaw managed to complete the Mundare Beach Breeding Bird Atlas square, start a Colonial Nesters monitoring program and obtain and install a donation box at the Natural Area - as if merely being treasurer for the society was not enough!

Joan DeGeer continued her excellent work on the MAPPS project, this being her 3rd year on this important continent wide effort.

Research activity on nesting Tree Swallows declined since no university researchers were studying the colony. However, a report on new insights into the results from previous studies at this colony was provided by Peter Dunn. Some monitoring of the colony was accomplished in 1991 at the instigation of Debra Belmonte.

A special thanks to Jim Faragini who input a large portion of the 1991 banding data on computer files and, as usual, put in many hours of field station maintenance, band inventory, looking after equipment and supplies and providing many informal training sessions for apprentice banders at the lake.

#### Tours, Events and Visitors - Debra Belmonte

There were some major new initiatives in 1991 in the field of "contact with the general public" - a new display board was procured to replace our first display board built by Shannon Lord and Petra Stubb in 1988, a donation box was erected at the second gate (next to the large map) and the BBO held it's first Baillie Birdathon.

Although there were few tours scheduled to the BBO field station, visitors to the Beaverhill Lake Natural Area, primarily birders, were numerous in spring, peaking at over 120 on April 21. The rest of the year was quieter in the way of visitors with the exception of a welcome visit by four special guests, Dave Hussell and Erica Dunn and their two sons, who spent two days banding at the field station, July 30 and 31. They contributed excellent data and suggestions to the BBO operations and their careful, concise and detailed record keeping was illuminating. Some key events through the year were:

- Apr. 7 - mistnet workbee at Crestwood Community Hall (4 people)
- Apr. 10 - start of Beginner Bird Banding course (12 participants)
- Apr. 21 - visit to the BBO by the Edmonton Bird Club (about 25 people)
- Apr. 23 - joint spring meeting of the BBO and the Bird Study Group at the Provincial Museum (35 people)
- Apr. 27 - visit to the BBO of the Junior Field Naturalists (20 children between the ages of 8 and 12)
- May 4 - BBO garage sale at Jungkind/Belmonte residence
- May 8 - start of Intermediate Banding course (4 participants)
- May 25 & 26 - May Species Count and Baillie Birdathon (22 participants, 151 species of birds)
- June 9 - BBO display at Hastings Lake Environment Fair (about 200 visitors)
- Oct 6 - fall cleanup at the lab (Jim Faragini and 7 helpers)
- Oct 19 & 20 - bird banding demonstration and BBO display at the JJNC Seed'n Feed (approx. 2000 visitors)
- Nov 4 - Annual General Meeting at the JJNC (15 people attended)

## Treasurer's Report - Elson Olorenshaw

Income		Expences	
Cash balance - January 1, 1991	\$2,137	Office supplies	
Memberships	\$690	Mail box	\$53
Grants and contracts		Stationary	\$45
U. of A.	\$88	Postage	\$246
Environment Canada	\$516	Printing	\$274
Alberta Gov't. (CRC)	\$1,187	Misc.	\$35
Baillie Fund	\$600	Insurance	\$130
Wildbird Gen. Store	\$180	Taxes (Municipal/school)	\$70
Baillie Birdathon	\$315	Bank service charges	\$16
WBBA (1990) Conference	\$422	Repairs and maintenance	\$2
Donations	\$355	Nets and poles	\$65
Interest (bank)	\$138	Bands and other equip.	\$49
Sales		Shorebird survey (1990)	\$375
Garage sale	\$134	Sale items	
"Prairie Water"	\$685	"Prairie Water"	\$780
Calendars	\$335	Calendars	\$193
Total revenue	\$7,783	Total expences	\$3,356
		Balance December 31, 1991	\$4,426

Special thanks to Alan Hingston and Helen Schiebel who audited the accounts.

## Part II - Bird Banding Summary - Stefan Jungkind

### Introduction

~~The twelfth year of bird banding at the southeast corner of Beaverhill Lake was an exciting one all round.~~  
There were some new and enthusiastic volunteers, 2 new species banded, new and productive net-lanes created, new mist-netting locations tried out and many new capture total records set (e.g. the previous record daily catch of 110 birds was broken 5 times with 171 birds handled on Sept. 2 holding up as the final record). It seems that the only record that was not broken was the total birds handed during the year (1766) which feel well short of the record set in 1989 (1948 birds handed). Banding totals for each species are presented in Table 1, along with those from Edgar Jone's banding efforts from the east shore of the lake.

### Nest-site banding and house trap use

Many thanks to Debra Belmonte, Jack Park and Petra Stubbs who monitored some of the 200 nest boxes and banded some of the young in late June and early July, although many of the young had fledged and less than half of the nest boxes could be checked in the time available. Finding some active House Wren nests and one Mountain Bluebird nest were a bonus. During summer visits to the lab, a few of the fledgeling Barn Swallows and Eastern Phoebes were banded in their nests. Altogether, 55 birds of 5 species were banded at nest sites in 1991 (Table 1).

House traps were again used sparingly in 1991, on only 5 days between Apr. 27 and May 12, but even when they were not in operation, they managed to delay some unwary birds long enough to be caught by hand. Birds captured in the housetraps included 11 individuals of 2 species (Table 1) and 7 "returns" - six Red-winged Blackbird and one Brown-headed Cowbird.

Table 1. Birds banded at Beaverhill Lake in 1991 by the BBO and Edgar Jones

Species	Birds banded			EJ	Species	Number Banded			EJ
	BBO nets	other	total			BBO nets	other	total	
# Pied-billed Grebe				1	Magnolia Warbler	6		6	15
Blue-winged Teal				1	Cape May Warbler	3		3	2
Sharp-sh. Hawk		1A	1	3	Myrtle Warbler	350		350	1607
Common Snipe				1	Audubon's Warbler	3		3	
N. Saw-whet Owl				1	* Townsend's Warbler	2		2	
Downy Woodpecker	3		3	1	* Bl.-thr. Gr. Warbler	1		1	2
# Hairy Woodpecker				1	W. Palm Warbler	4		4	35
Yellow-sh. Flicker				2	Blackpoll Warbler	18		18	59
W. Wood-Pewee				3	Bl. & Wh. Warbler	7		7	4
Yell.-b. Flycatcher	2	1A	3	2	Am. Redstart	57		57	44
Tr. Flycatcher	35		35	103	Ovenbird	2		2	2
Least Flycatcher	262	9A	271	677	N. Waterthrush	3		3	13
Eastern Phoebe	6	2B	8		# Connecticut Warbler				1
Eastern Kingbird				5	Mourning Warbler	6		6	2
Tree Swallow		38B	38		Com. Yellowthroat	6		6	40
Barn Swallow		4B;2C	6	5	Wilson's Warbler	9		9	21
Bl.-cpd Chickadee	59		59	115	Canada Warbler	4		4	2
Boreal Chickadee	1		1		Western Tanager				3
Red-br. Nuthatch				2	Rose-br. Grosbeak				2
House Wren	37	6A;9B	52	22	Am. Tree Sparrow	39	1D	40	5
Marsh Wren	1	1D	2	116	Chipping Sparrow	6		6	37
Ruby-cr. Kinglet	1		1	6	Clay-co. Sparrow	192	15A	207	468
Mountain Bluebird		2B	2		Vesper Sparrow				2
Veery				1	Savannah Sparrow	4	5D	9	30
Gray-ch. Thrush				2	LeConte's Sparrow				5
Swainson's Thrush	3	3A	6	36	Sh.-tailed Sparrow		2D	2	1
Hermit Thrush	2		2	3	Song Sparrow	4		4	11
Am. Robin	4	1A	5	2	Lincoln's Sparrow	15		15	4
Gray Catbird				4	Swamp Sparrow	1		1	6
Cedar Waxwing	13		13	3	Wh.-thr. Sparrow	5		5	5
Solitary Vireo	3		3	1	Wh.-cr. Sparrow	1		1	2
Warbling Vireo	27	3A	30	68	Slate-co. Junco	8		8	3
Philadelphia Vireo	5		5	11	Red-wgd Blackbird	11	9C	20	47
Red-eyed Vireo	11		11	15	Ye.-hd. Blackbird				2
Tennessee Warbler	108		108	140	Br.-hd. Cowbird	13	5A	18	2
Orange-cr. Warbler	2		2		Baltimore Oriole	9	6A	15	24
Yellow Warbler	245	11A	256	785	Am. Goldfinch	10	1A	11	17
					Total Species	51	21	55	67
					Total Individuals	1629	137	1766	4663

\* - species new to the BBO banding records at Beaverhill Lake  
# - species new to Edgar Jones' banding records at Beaverhill Lake  
- in 'other' column, A = different location; B = nestsite; C = shore; D = housetrap



### Mist-netting at the field station

With mist-nets being set up on a total of 45 days between Apr. 21 and Oct. 6 for a total of 1714 net hours, and capture rates being well above normal, this was the most successful activity at the BBO this year. Capture rates "went through the roof" in the fall and almost all the volunteer banders and assistants had their share of exhausting but exhilarating days manning the nets. While most of the mist-net use was in established "woodland" net-lanes (actually a habitat consisting of poplar stands, willow clumps and grassy openings) adjacent to the field station, two attempts were made (Apr. 21 and Sept. 15) to capture grassland, marsh and shore species by setting up nets around the favourite muddy inlet about 150 metres north of the lab. This resulted in a handful of birds being caught including one species (Sharp-tailed Sparrow) not caught in any other nets.

Altogether, "woodland" mist-net captures at the field station (including the MAPPS project) resulted in 1629 birds banded (52 species) and 33 returns recorded, yielding an overall capture rate of 98.2 birds/100 net hours. These figures exceed the records from previous years for both total birds (1331 birds of 61 species in 1989) and capture rate (70 birds/100 net-hours in 1990). The five most frequently caught species (from most to least) were Myrtle Warbler, Least Flycatcher, Yellow Warbler, Clay-coloured Sparrow and Tennessee Warbler, and between them they accounted for 70.6% of the birds banded from "woodland" mist-net captures at the field station.

### Mist-netting at other Beaverhill Lake Locations

Edgar Jones, banding birds along the east shore of the lake, also had an exceptional year, with capture rates similar to those at the BBO. However, he was able to focus all of his considerable mist-net effort during some peak migration periods in spring (May 23-29) and fall (Jul. 28 - Aug. 1 and Sept. 2-7), accounting for his phenomenal banding totals (see Table 1). His top five species banded were the same as those at the BBO but in a slightly different order, and together they accounted for 78.9% of his total birds banded. In late May, two adventurous BBO banders attempted some mist-netting in some different sites around the SE corner of the lake to see if there were any better locations for spring banding. Steve Lane set up a few nets (for a couple of hours during the afternoon of May 27th) in the woodlot south of Rowan's Route and just west of Amisk Creek. Although he only caught 6 birds, his first two were a Yellow-bellied Flycatcher and a Sharp-shinned Hawk - not bad Steve! Meanwhile, Jim Faragini spent May 26-28 mist-netting in the "sandpit" willows about 1/2 Km. east of the Beaverhill Lake Natural Area. He had some good success, banding 56 birds (11 species), but felt that he was catching mainly summer residents, although he did account for half the yearly banding total for Swainson's Thrush - a transient species at Beaverhill Lake.

### Retraps

On May 26, the House Wren that was building a nest in the nest box above the door to the lab (and greeted every visitor with angry chattering) flew into the lab to check out another House Wren that was being "processed" (banded and measured). It was grabbed by an alert bystander and proved to be an AHY/M (after hatch year, male) "return" from 1989 when it was banded as an "L/U" (young bird unable to fly) in one of the willow

gridnest boxes. Over the next week, this individual was caught ("repeat") in 3 different net-lanes closest to the lab, defining it's territory very nicely.

It is this sort of personal acquaintance with individual birds that lurks behind the dry data on "repeats" and "returns" (see Appendix 1 for definitions) presented in Tables 2, 3 and 4. Altogether, the 183 times that a previously banded bird was handled (177 retraps and 6 "foreign encounters") represents ~ 9% of all the bird handling incidents during the year.

The length of stay for a number of the transient species indicates that there was some major attraction to these birds in the BBO lab vicinity. Although there have been a handful of previous cases of transient species individuals staying for 3 or more weeks in the fall (see 1986, 1987 and 1990 Annual Reports Ten Year Summary Report) there have never been this many lingerers. Two possible factors involved in this year's phenomenon could be

- 1) immense clouds of "lake flies" (chironimids) that erupted from the damp grass and willow bushes wherever one walked in August.
- and 2) a willow leaf miner infestation that left many willows almost bare of leaves by mid August.

These abundant food source possibilities could also explain the exceptionally high capture rates for the fall (see Part III, Migration Monitoring Program).

Table 2. "Repeats" at the Beaverhill Bird Observatory in 1991

Species	Total repeat indiv.	Total repeat captures	Total banded & returned	Repeat %	Longest elapsed time* from first to last capture
Downy Woodpecker	1	1	3	33.3	
Trail's Flycatcher	2	2	36	5.6	
Least Flycatcher	19	24	267	7.1	
Eastern Phoebe	2	4	8	25.0	
Black-capped Chickadee	19	39	57	33.3	
Boreal Chickadee	1	3	1	100.0	
House Wren	2	4	38	5.3	
Warbling Vireo	1	1	31	3.2	
Red-eyed Vireo	2	2	12	16.7	
Tennessee Warbler*	4	4	109	3.7	22 days (Jul 27 - Aug 18)
Yellow Warbler	22	31	256	8.6	
Yellow-rumped Warbler*	8	10	392	2.0	26 days ( Aug 6 - 31)
American Redstart*	2	2	57	3.5	2 days (Aug 10 - 12)
Common Yellowthroat	1	1	6	16.7	
Am. Tree Sparrow*	1	1	40	2.5	8 days (Sep 28 - Oct 6)
Clay-colored Sparrow	15	17	198	7.6	
Brown-headed Cowbird	5	7	17	29.4	
Baltimore Oriole	1	1	10	10.0	
American Goldfinch	1	1	10	10.0	
<b>Total (17 species)</b>	<b>109</b>	<b>155</b>	<b>1548</b>	<b>7.0</b>	

\* - transient species only

Table 3. "Returns" at the Beaverhill Bird Observatory in 1991

Species:	Number of returns from:					Total returns in 1991	Total# returns since 1981	Total banded 80-90	% return
	1986	1987	1988	1989	1990				
Least Flycatcher	-	-	-	1*	4	5	22	1151	1.9
House Wren	-	-	-	1*	-	1	6	966	0.6
Warbling Vireo	-	-	-	1*	4	5	6	135	4.4
Red-eyed Vireo	-	-	-	-	1*	1	1	27	3.7
Yellow Warbler	1*	2*	1*	5*	3	12	40	706	5.7
Clay-colored Sparrow	-	-	-	3*	3	6	16	401	4
Red-winged Blackbird	-	1*	3*	3*	-	7	23	209	11
Brown-headed Cowbird	-	-	-	4	-	4	19	105	18.1
Total (8 species):	1	3	4	18	15	41	133	3700	3.6
Total (all species):							211	9225	2.3

# - this total is not necessarily the sum of the previous columns - some individuals returned in more than one year  
 \* - details on one or more of these individuals appear in Table 4

Table 4. Details on individual "returns" at the BBO in 1991

Species/ Band number	Banding data			Return data (1991)			Previous returns
	age/sex	date	bander	age/sex	date	bander	
Least Flycatcher 1820 19651	HY/U	24-Aug-89	JW	AHY/M	17-Jul	JD	
House Wren 1780 41948	LU	6-Jul-89	CM	AHY/U	27-May	RF	
Warbling Vireo 2051 88768	HY/U	3-Sep-89	JF	AHY/U	27-May	JF*	
Red-eyed Vireo 2061 50709	AHY/M	25-Jul-90	JD	AHY/M	27-Jul	JD	
Yellow Warbler 1720 49529	AHY/M	24-May-86	GH	ASY/M	27-May	SJ	21-May-88 25-May-89 8-Jun-90
1750 53355**	AHY/M	28-Jun-87	SJ	ASY/M	18-May	JF	14-Jun-89 17-Jun-90
1750 53504	AHY/M	17-Aug-87	DB	ASY/M	12-May	SJ	28-May-88 8-Jun-90
1780 40255	AHY/F	10-Aug-88	PS	ASY/F	26-May	SJ	
1780 41769	AHY/F	23-May-89	SJ	AHY/F	13-Jul	DM	22-Jun-90
Clay-colored Sparrow 1820 19823	HY/U	5-Aug-89	CT	AHY/U	29-May	SLa	21-May-90
Red-winged Blackbird 762 34167	ASY/M	30-May-87	MQ	ASY/M	12-May	SJ	
852 53116	ASY/M	12-May-88	SLo	AHY/M	11-May	SLa	
852 53122	ASY/M	15-May-88	SJ	ASY/M	12-May	SJ	
852 53158	ASY/M	25-May-88	JF	AHY/M	5-May	JF	
Brown-headed Cowbird 921 31465	AHY/M	15-Jul-89	PS	AHY/M	15-Jun	JF	

\* - return location ~ 1 mile south-west of banding site  
 \*\* - replaced with band # 1860 67456

banders: DB - Debra Belmonte GH - Geoff Holroyd SLo - Shannon Lord MQ - Mike Quinn  
 JD - Joan DeGeer SJ - Stefan Jungkind CM - Cindy MacCallum PS - Petra Stubbs  
 RF - Roy Fairweather SLa - Steve Lane DM - Donna Mirtle CT - Corinne Tastayre  
 JF - Jim Faragini

The Boreal Chickadee "repeat" was a particularly interesting case. It (presumably the same bird) was first seen (by visitor Erica Dunn) carrying food, about a week before its first capture when it was found to have an old brood patch starting to grow pin feathers. In addition to the "repeats" indicated in Table 2, it was also seen or heard on numerous other occasions, but each time a Boreal Chickadee came into view, it had a band on its leg! This truly illustrates the importance of banding as part of migration monitoring. If we had been going by sight records alone, we might have guessed at a possible Boreal Chickadee "invasion". It also raises the question of what happened to its mate and young ones, considering that no other Boreal Chickadee has been seen within 2 miles of the BBO field station since 1984 when 3 were banded in the fall (there are no extensive spruce woods, typical Boreal Chickadee habitat, for at least 10 miles in any direction). It is conceivable that this individual crossbred with a Black-capped Chickadee at Beaverhill Lake in 1991.

#### Foreign Encounters and Recoveries

The thrill of receiving recovery information on a bird that was banded at the BBO is augmented when the recovery is a distant one. This happened twice in 1991, as has been announced in BBO newsletters. To put these "recoveries" into perspective, Table 5 summarizes all recoveries and foreign encounters (away from Beaverhill Lake) of birds banded at the BBO. If we include birds banded at the BBO and retrapped at Edgar Jones' site along the east shore of the lake, we obtain a total of 10 foreign recovery/encounters out of the 10,000+ birds banded at the BBO site since 1980 (see Ten year summary report and 1990 Annual Report), yielding a recovery rate of less than 0.1%. However, out of these 10 recoveries, four are from more than 1000 miles away, and the remainder from within 50 miles of the BBO!

There were six birds caught at the BBO in 1991 that had been banded elsewhere - all from Edgar Jones site about 10 miles northeast of the lab. Information on these birds is presented in Table 6 along with a summary of all other banding/retrap events between the two sites over the last 8 years. Of these birds, all except 2 (both Yellow Warblers) of the locally breeding species were caught in different years at the two sites, while all 5 of the transient species individuals were caught in the same season. The two HY/M Myrtle Warblers banded at the BBO in August 1991 and recaptured four days later at Edgar Jones' site are particularly revealing. Perhaps the entire southeast corner and east shore of Beaverhill Lake is being used as single large stop over site by migrating songbirds the way the whole lake seems to be used by waterfowl and shorebirds.

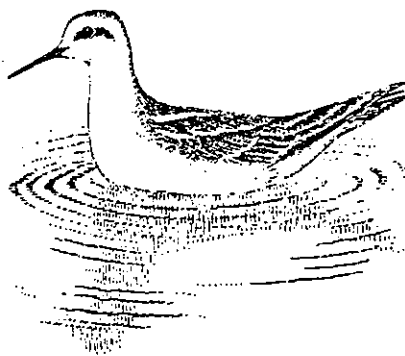


Table 5. Recoveries away from Beaverhill Lake of birds banded by the BBO since 1980

Species/Band number	Original banding data (BBO)			Foreign encounter or recovery (*) data		
	Age/sex	Date	Recorded by:	Location	Date	Reported by:
Marbled Godwit 624 09202	AHY/F	Jun. 15 1983	Rainer Ebel	• Monterey Bay California	Mar. 25 1984	Linda Perez
Least Flycatcher 1780 41439	U/U	Aug. 13 1989	Jim Lange/ Petra Stubbs	• near Chiquimula, Guatemala	Apr. 15 1991	Daniel Weber
Tree Swallow 2061 50071	L/U	Jul. 3 1989	Corrinne Tastayre	• near Long Lake Minnesota	Jun.28 1990	Michell Walker
Black-capped Chickadee 1750 53566	HY/U	Jun.29 1988	Shannon Lord	• Totfield Alberta	Jul. 29 1989	Dave Carlson
Myrtle Warbler 1860 67285	HY/U	Sep. 8 1990	Jim Faragini	• near Macon Georgia	Jan. 19 1991	Dan Wallace
Purple Finch 2051 88304	AHY/F	Jul.13 1988	Petra Stubbs	• Lougheed Alberta	Apr. 24 1989	Siobhan Butcher

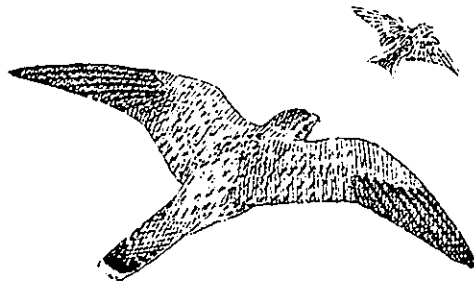


Table 6. Birds banded at Beaverhill Lake by Edgar Jones and retrapped at the BBO and vice versa

Species/ Band number	Data from EJ's		Data from BBO		
	age/sex	date	age/sex	date	bander
<b>Least</b>					
1640 21486	HY/U*	23/Aug/83	AHY/F	24/May/86	GH
1730 71327	AHY/U*	23/Jul/86	U/U	28/Jun/87	SJ
1780 30109	U/U*	2/Aug/88	U/M	1/Jun/91	JD
<b>Tree Swallow</b>					
980 11506	AHY/F*	28/May/84	ASY/F	26/May/85 24/May/86 30/May/87	GH
980 11566	AHY/F*	28/May/84	AHY/F	3/Jun/86 27/May/87	
940 32092	AHY/M*	30/May/86	AHY/M	2/Jul/90	PD
<b>Tennessee</b>					
1860 78385	U/U*	29/Jul/91	HY/U	2/Aug/91	SJ
<b>Yellow Warbler</b>					
1780 30014	U/U*	2/Aug/88	AHY/F	11/Aug/89	CT
1780 30413	U/U*	4/Aug/88	AHY/F	24/Jul/91	SJ
1780 30722	U/U*	9/Aug/88	AHY/M	8/Aug/91	JF
1780 31435	U/U*	25/Jul/89	U/U	13/Aug/89	PS
1780 31952	AHY/U*	29/Jul/89	ASY/M	19/Jun/91	SJ
1780 32441	AHY/U*	5/Aug/89	AHY/M	27/Jun/90	JD
1780 32463	U/U*	6/Aug/89	AHY/F	13/Aug/89	SJ
1820 19308	U/U	29/May/90	HY/U*	19/Jul/89	PS
1850 62964	U/U	1/Aug/91	HY/U*	17/Aug/90	SJ
1860 50355	U/U*	30/Jul/90	AHY/F	2/Aug/91	SJ
<b>Myrtle Warbler</b>					
1860 68952	HY/U	4/Sep/91	HY/M*	31/Aug/91	GH
1860 68954	HY/U	4/Sep/91	HY/M*	31/Aug/91	GH
1860 79165	U/U*	31/Jul/91	AHY/U	10/Aug/91	JF
1860 79207	U/U*	31/Jul/91	U/U	24/Aug/91	JF
<b>Baltimore</b>					
8001 86882	HY/F*	26/Jul/89	AHY/F	27/May/90	SJ

\* - banded at this location

Banders: JD - Joan DeGeer PD - Peter Dunn JF - Jim Faragini GH - Geoff Holroyd PS - Petra Stubbs  
SJ - Stephan Junkind CT - Corrine Tastarye

## Part III - Project Reports

### Sight Records - Roy Fairweather

The following is a portion of a report prepared by Roy Fairweather (Fairweather, 1992) from bird sightings within 5 miles of Beaverhill Lake. A further portion of that report can be found in Appendix 2.

Beaverhill Lake draws many people to its shores. Why do thousands of individuals eagerly anticipate visiting here each year? In 1991, people came from Alaska, Saudi Arabia, Newfoundland and from all over Alberta. If you are a birder, you will know. There is such a variety of birdlife to be seen, especially during spring and fall migrations. Here you may be lucky enough to be the only one to see a Great Egret as did Jim Henry this year, or you may stand in awe as 20,000 Snow Geese fill the sky from horizon to horizon as did Terry Thormin.

This Sight Records Report is a compilation of all the bird sightings that were submitted to the Beaverhill Bird Observatory for the year 1991. It includes checklists submitted by the general public and BBO members, banding reports, and independent reports by recognised birders who frequent Beaverhill Lake.

Dick Dekker, as could be expected, spent about 50 days walking the shores of Beaverhill Lake. Dick notes, "The past fall was one of the best for shorebird build-up at the lake in my 27 years." Also Dick pointed out the exceptionally late date for avocets having seen 3 on October 5 (Bob Carroll saw 2 on October 8). And how about seeing 40 - 60 trumpeter swans on October 9?

All in all, 220 species of birds were identified at and near the lake. Five additional species were recorded as possible sightings and tagged with a '?' to note their unconfirmed status. Here are some other highlights:

#### HIGH NUMBERS

Snow Goose	20,000	April 23	Terry Thormin <
Canada Goose	5,200	March 31	Terry Thormin <
Duck (sp.)	20,000	August 31	Geoff Holroyd
Duck (sp.)	3,000	September 28	BBO
Black-bellied Plover	150	May 26	May Sp. Count
Semipalmated Sandpiper	1000	May 20	Ed Mah-Lim
Pectoral Sandpiper	200+	Sept. 26 - Oct. 8	Bob Carroll
Dowitcher (sp.)	10,000	October ?	Dick Dekker <
Dowitcher (sp.)	5,000	October 8	Bob Carroll
Gull (sp.)	10,000	August 31	Geoff Holroyd
Bank Swallow	2000+	August 22	Bob Carroll
Barn Swallows	15,000	August 31	Geoff Holroyd
Raven	9	September 7	Dick Dekker
Yellow-rumped Warbler	150	August 31	Geoff Holroyd
Warbler (sp.)	500	August 31	Geoff Holroyd

< indicates source as Edmonton Journal, "Birdwatching" by Cam Findlay

#### RARE SIGHTINGS

Common Loon	April 21	Dave Nadeau
Great Egret	May 30	Jim Henry
Harlequin Duck	Sept. 21	Terry Thormin
Surf Scoter	May 26	Petra Stubbs
Broad-winged Hawk	Sept. 6	Bob Carroll
Ferruginous Hawk	May 25	Geoff Holroyd
Gyr Falcon	Nov. 16	Dick Dekker
Virginia Rail	June 11	Terry Thormin
Sabine's Gull	Sept. 21/Oct. 13	Terry Thormin
Caspian Tern	July 8	Bob Carroll
Gray-cheeked Thrush	May 29	Ed Jones
Brown Thrasher	May 20	Ed Mah-Lim
Chestnut-sided Warbler	Sept. 21	Ed Mah-Lim
Townsend's Warbler	Aug. 10/Aug. 24	Jim Faragini/Stefan Jungkind
Bay-breasted Warbler	Sept. 21	Ed Mah-Lim
Connecticut Warbler	May 25/Aug. 22	Ed Jones/Bob Carroll
Lark Sparrow	May 18	Terry Thormin
Lark Bunting	June 15	Elson Olorenshaw





## Colonial Nesters - Elson Olorenshaw

The purpose of this project is to determine numbers of nests, eggs and young for colonies at Beaverhill Lake of American White Pelican, Double-crested Cormorant, Black-crowned Night Heron, Great Blue Heron and gulls of various species.

The presence of breeding colonies of pelicans and cormorants on Pelican Island was established in the 1970's and monitored during the early 1980's (see 1985 Annual Report). Reports of Franklin's, Ring-billed and California Gull colonies go back many years (see R. Lister's "Birds and Birders of Beaverhill Lake") with the most recent reports of numbers coming from 1976 and 1977 (see D. Dekker's "Prairie Water" p. 88), although evidently some of these Gull colonies have continued up to the present (e.g. Stefan Jungkind reported 30+ downy young California Gulls on a small island near Pelican Island in 1990).

Dave Moore of the Alberta Fish and Wildlife department would like to obtain information on all pelican, cormorant, gull and heron colonies in the province, and requested the BBO's assistance in locating and monitoring such colonies at Beaverhill Lake. Elson Olorenshaw, Dave Moore and Bob Carroll, made 3 visits to the lake during 1991 specifically for this purpose.

The areas and times visited were:

- 1) Pelican Island, located about 1 km northwest of Mundare Beach, about 150 metres long, narrow, and made up of sandy and rocky terrain with some areas of vegetation up to 40 cm high, was visited on June 11 (landed on island) and August 2 (canoeed past).
- 2) Another small round island about 20 metres in diameter and 1/2 km further north along the east shore from Pelican Island was visited on August 2 by canoe.
- 3) Dekker Island was visited on August 2 by canoe.
- 4) Reed beds at the northeast corner of the lake that extended 1/2 km from the shoreline and contained sizeable patches of open water, were visited on foot (actually hip wader) on July 8 and by canoe on August 2.

On these trips, the following colonies, nests, eggs or young were counted:

### American White Pelican

On June 11, 159 nests were counted on Pelican Island containing eggs (usually 2) or young up to a week old. On August 2, 70 young (almost full grown) were counted at the main island and 26 young (slightly younger) on the smaller island, but not all areas of the islands could be seen clearly.

### Double-crested Cormorant

On June 11, 207 nests counted on Pelican Island contained 4 or 5 bluish white eggs or chicks up to a week old. On August 2, 260 almost fully grown young were seen on Pelican Island and none on the smaller island, but see above.

### California Gull

On June 11, 30+ nests with eggs were located on Pelican Island and many chicks of various ages were hiding in the vegetation. On August 2, all the young that could be seen were flying and making defensive display

along with the adults. No young could be seen on the smaller island but they may have been hiding in the vegetation.

#### Black-crowned Night Heron

On July 8, 2 nests were found at the northeast corner of the lake with 3 young (different ages) in each nest. Others were evidently nearby but left unchecked to avoid excessive disturbance of the colony. On August 2, canoeing into the colony from the lake side, there were Black-crowned Night Herons taking off from all around and many were recently fledged immature birds. Checking two medium sized patches of reeds revealed 9 nests in close proximity (as close as 7 ft. apart). However, all except 2 of the young in one nest (again of different ages) had either flown or escaped by foot. The water was ~ 60 cm deep and nests were floating platforms of reeds. No clear picture of the size of colony or total of young and adults could be obtained.

#### Great Blue Heron

No evidence of a colony was obtained, but one or more were sighted on each of 8 trips to the lake.

Some of the other interesting breeding evidence collected during the above mentioned visits included:

- hundreds of Forsters and Black Terns attacking the observers at a long reed covered island close to Dekker Island.
- a very angry LeConte's Sparrow on Dekker Island who wished the observers to go elsewhere.
- one adult and one small, immature Wilson's Phalarope on a mud flat.
- at the northeast corner of the lake, many of the Western Grebes had half grown young and some of the numerous Eared Grebes seen had young on their backs.

An important aspect of the project is to minimize disturbance of the colonies being monitored. Current literature indicates that birds could be easily discouraged and abandon their nests during the early stages. Once most of the eggs have hatched, likelihood of abandonment is much lower, but disturbance during hot or cold, wet weather could cause high duck mortality. Perhaps signs warning boaters away from Pelican Island should be erected - this could be easily accomplished since the water around the island is quite shallow.

#### Migration Monitoring Program - Stefan Jungkind

The original primary purpose of setting up the BBO banding station in 1984 was to monitor migration of passerines at Beaverhill Lake. Although this has remained of central importance throughout the development of the society there has yet to be a fully structured systematic approach to this activity. Banding and visual monitoring during migration has been done on an informal basis, according to the availability of qualified personnel (primarily volunteers). Efforts were made to provide consistent coverage over the migration periods but net-lane use, census route runs and daily estimated totals recorded varied considerably from week to week.

However, over the last six years, a good deal of valuable data on song bird banding and recaptures at the BBO has accumulated in spite of the absence of "structure" to the project. This data, along with additional banding data from Beaverhill Lake, was compiled and summarized by Stefan Jungkind for a paper "Songbird migration at

Beaverhill Lake" that was presented by Petra Stubbs at the Third Prairie Endangered Species Workshop in Brandon, Manitoba in March of 1991 (Holroyd et al, in prep.). The following is an edited portion of the paper mentioned above:

Since 1986, mist-nets have been used at the Beaverhill Bird Observatory Field Station site for a total of 11,014.5 net hours (for 1988-91, only "woodland" mist net hours have been included). This has resulted in 6645 captures, out of which 5800 birds of 71 woodland songbird species have been banded, including more than 1200 banded each year since 1989 (see Ten Year Summary Report and 1990 Annual Report).

Looking at the average spring and fall 10-day period capture rates since 1986 (Figure 1), we notice a large increase for fall capture rates during the years 1989 to 1991, due primarily to extremely high capture rates in August of both years (Figure 2). In 1991 in particular, extremely heavy migration on August 24 and 25 filled the nets to the point where 5 experienced banders could not keep up with the flood of birds in just two nets. A total of 250 birds were caught over the two mornings with a capture rate of 568 birds/100 net-hours.

Edgar Jones' capture rates at Beaverhill Lake have been very similar to those of the BBO over the four years that his capture rates are available (Table 7). In order to make the comparison meaningful, the BBO's capture rates have been calculated for the peak spring (May 11 - June 9) and fall (July 20 - September 7) migration periods since those periods are when Edgar Jones' banding takes place. The pronounced parallel increase in fall capture rates from 1989 to 1991 suggests that whatever phenomenon created the increase was not site specific (see Part II - Retraps for a possible explanation). Table 7 should also clarify why Edgar Jones catches so many more birds than the BBO each year. It is not because he is at a better location, but rather that he is able to accomplish more net-hours of mist-netting during the most productive times of the year.

It is of particular interest to investigate the year to year change in capture rate for individual species. In order to make comparisons meaningful, capture rates must be calculated only over the time periods during which each species occurs at Beaverhill Lake. This has been done for 5 breeding and 5 transient species at the BBO, using 12 years of sight records and banding data to establish the time frames (Figures 3 and 4). All the species except Black-capped Chickadee and Blackpoll Warbler had their highest capture rate in 1991, but this is most pronounced in the transient species, especially Yellow-rumped Warbler, Tennessee Warbler and American Redstart. It is apparent that a large part of the increase in the overall capture rate from 1989 to 1991 was due to Yellow-rumped Warbler captures.

Recently there has been growing evidence of the value and importance of standardized monitoring of land bird numbers during migration (e.g. Dunn, 1992) as has been done for many years at Long Point Bird Observatory in Ontario. The activities of LPBO and at Last Mountain Lake, Saskatchewan (Smith 1989 & 1991) coupled with the value and success of the MAPPS project at the BBO have given the BBO incentive to set up a more systematic approach to migration monitoring. For the 1992 season, twelve net-lanes will be selected for regular usage through the spring and fall migration and a shorter census route will be established to be run regularly.

Figure 1. Yearly spring and fall capture rates at the BBO, 1986 - 91

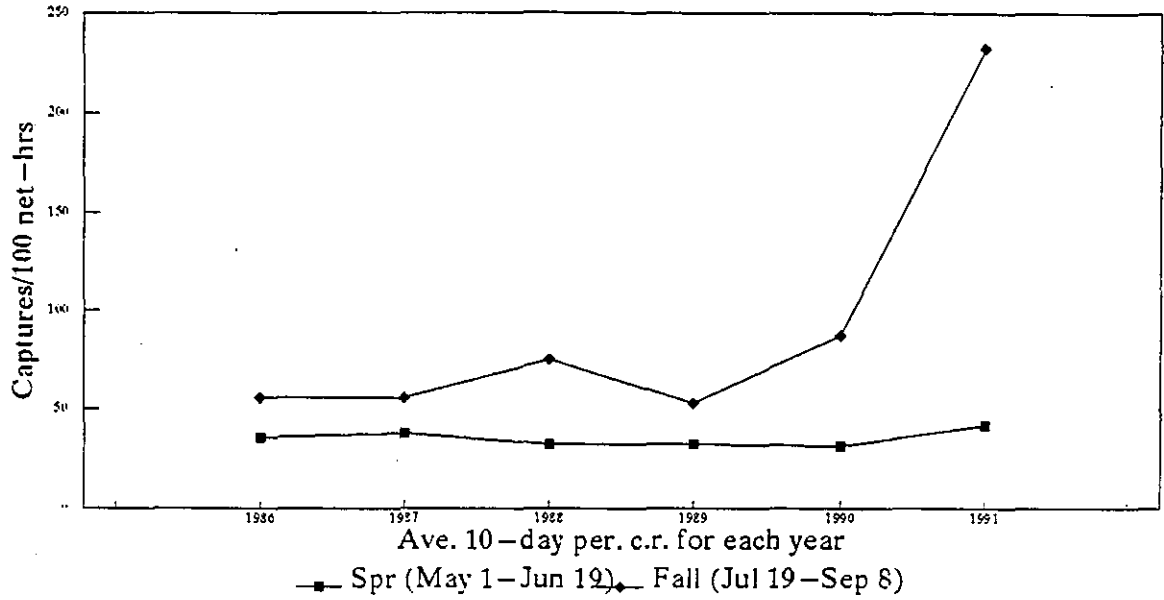


Figure 2. Ten-day period capture rates at the BBO, 1986 - 91 for April 1 to October 8

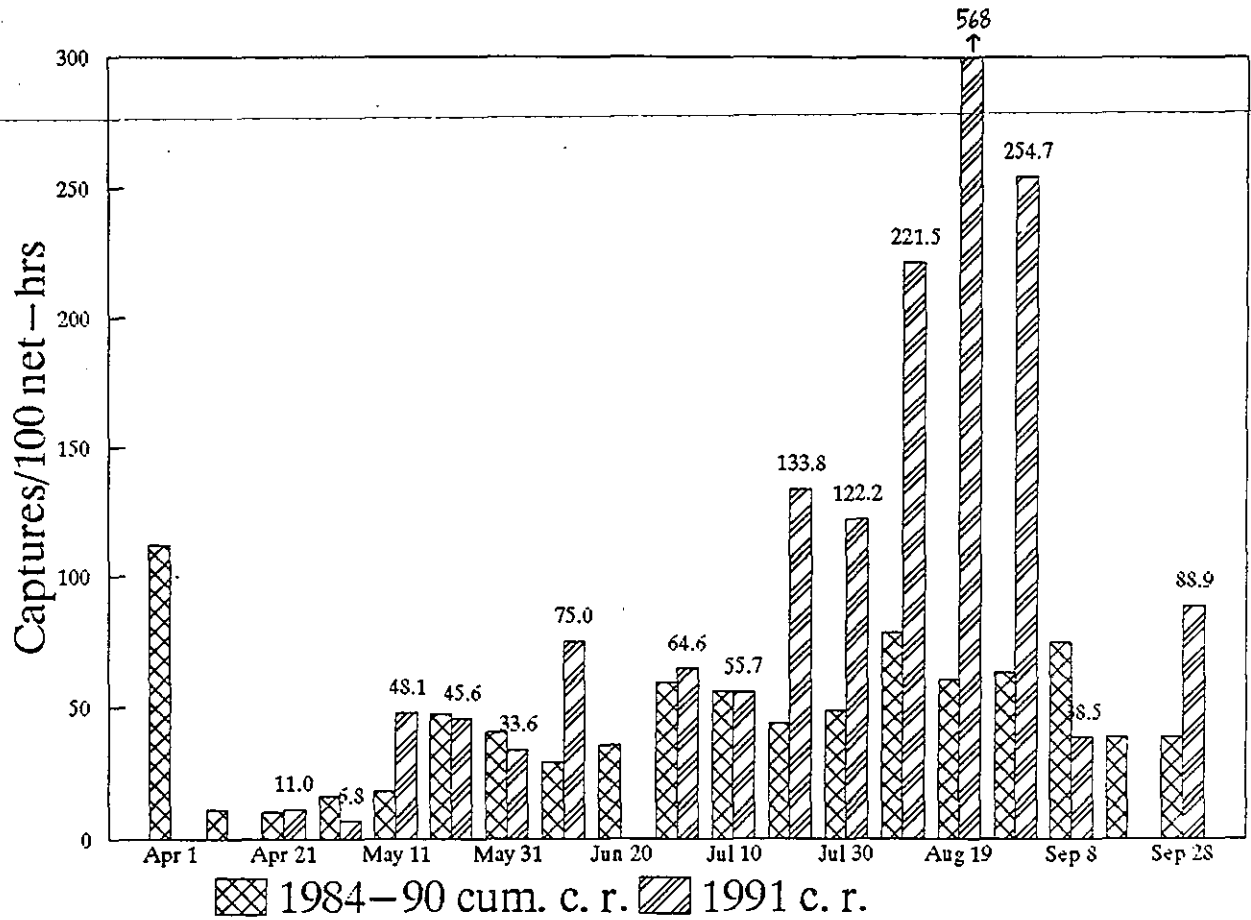
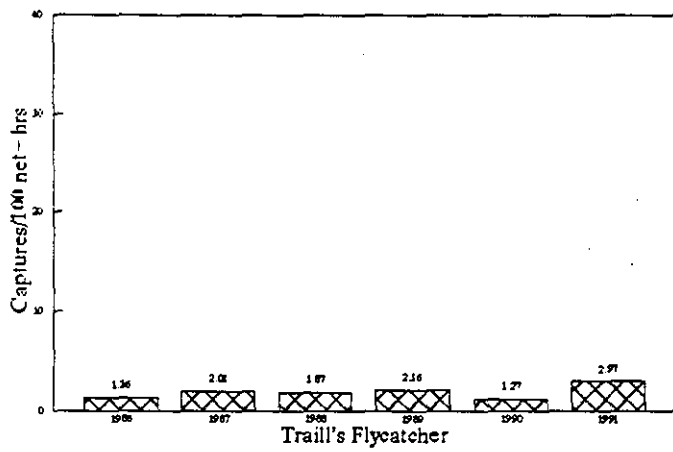
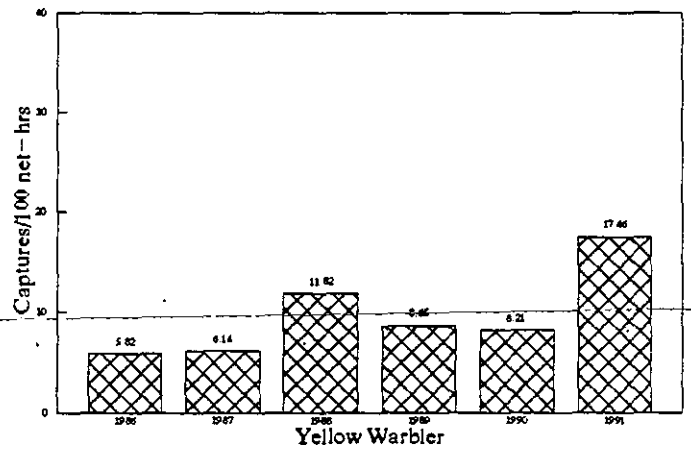
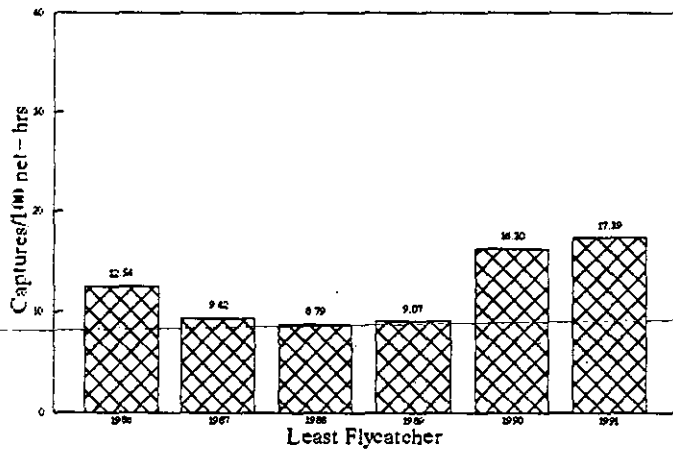
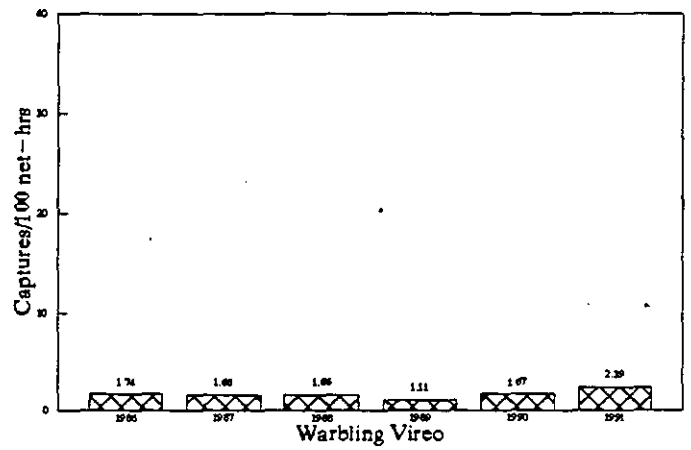
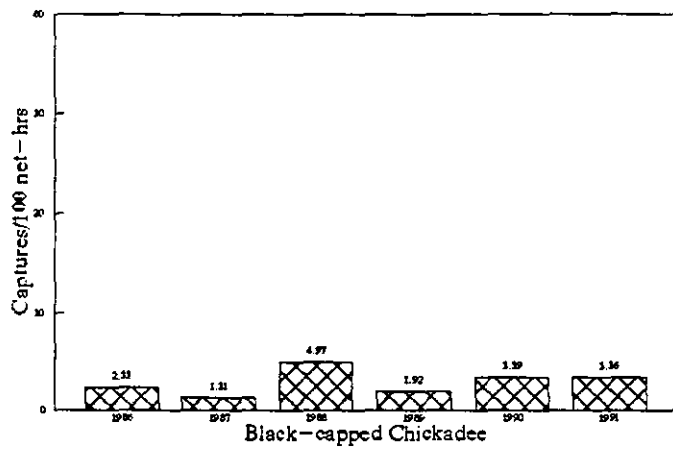


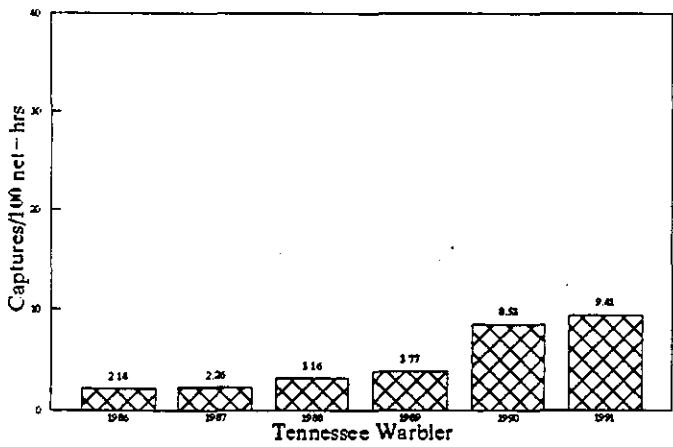
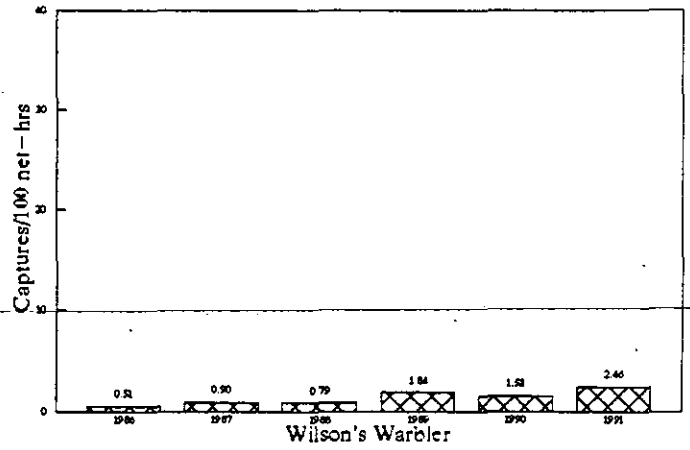
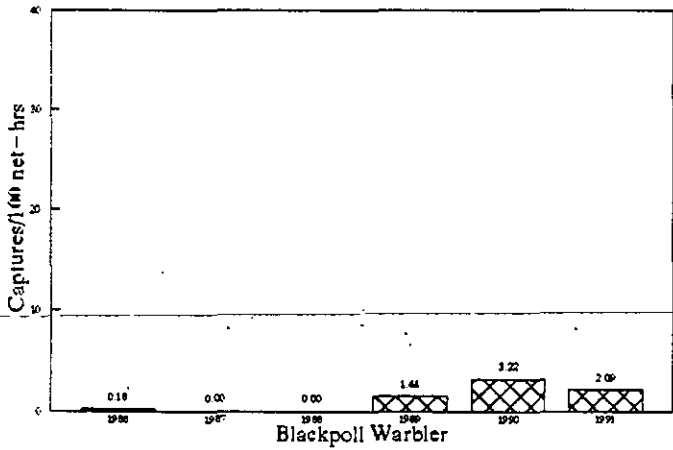
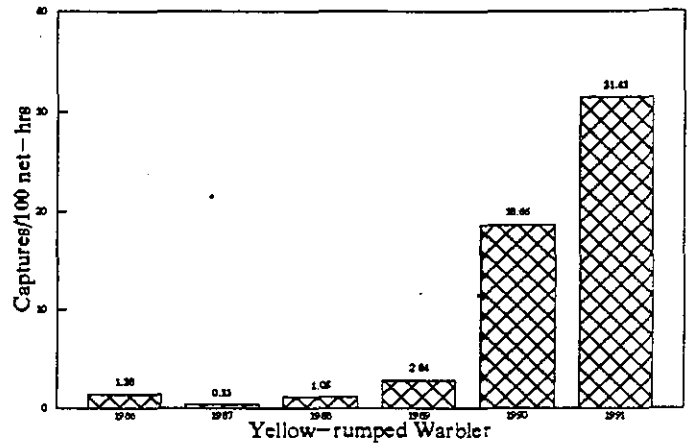
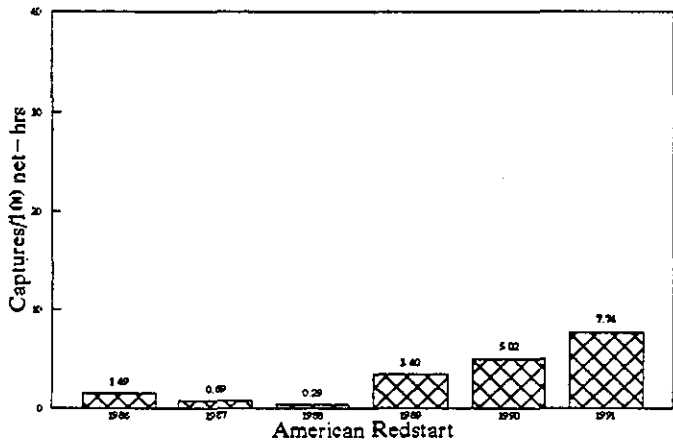
Figure 3. Yearly capture rates at the BBO for 5 locally breeding species, 1986 - 91



Time frames

Black-capped Chickadee	Apr 1 - Oct 7
Least Flycatcher	May 11 - Sep 15
Traill's Flycatcher	May 21 - Sep 7
Warbling Vireo	May 21 - Sep 17
Yellow Warbler	May 11 - Sep 7

Figure 4. Yearly capture rates at the BBO for 5 transient species, 1986 - 91



Time frames

American Redstart	May 21 - Jun 9 & Aug 9 - Sep 27
Blackpoll Warbler	May 21 - Jun 19 & Aug 9 - Sep 17
Tennessee Warbler	May 21 - Jun 9 & Jun 30 - Sep 7
Yellow-rumped Warbler	Apr 21 - May 30 & Jul 20 - Oct 7
Wilson's Warbler	Aug 9 - Sep 7

Table 7. Comparison between BBO and Edgar Jones mist-net effort and capture rates at Beaverhill Lake, 1988 - 91

Year:	1988	1989	1990	1991	Average
Net-hours					
BBO spr.(May 21-Jun 9)	273.3	446.6	167.0	369.7	314.1
EJ spring	1520.0	569.0	2896.0	1181.0	1541.5
Capture rate					
BBO spr.(May 21-Jun 9)	47.2	43.3	50.3	38.7	44.9
EJ spring	26.6	46.7	28.1	56.4	39.5
Net-hours					
BBO fall (Jul 21-Sep 7)	565.0	1673.9	782.8	646.8	917.1
EJ fall	1686.0	2894.0	2223.0	1856.0	2164.8
Capture rate					
BBO fall (Jul 21-Sep 7)	74.7	52.3	105.3	206.1	109.6
EJ fall	58.6	45.2	75.4	215.5	98.7

N.B. BBO 1990 net-hours and capture rates includes Sep 18-27 to correspond to Edgar Jones' banding periods for that year.

#### The sex lives of Tree Swallows - Peter Dunn

(Editors note - Peter Dunn studied Tree Swallows at the BBO Tree Swallow nestbox grids from 1985-1989 as part of his Ph.D. thesis field work. The resulting thesis (Dunn, 1989) was reported on in the Ten Year Summary Report (Jungkind, 1990). Peter has since moved on to Queen's University in Kingston (and from there, recently, to Canberra, Australia) where he continued research on Tree Swallows. He sent the following report on his Tree Swallow findings to date. The BBO extends congratulations to Peter for receiving his Ph.D. degree and for his research success.)

Although Tree Swallows are usually monogamous (one male and one female nest together at one time), about 4% of the males are bigamous, having two females nesting in separate nest-boxes (usually 5 m. apart). During my research at the BBO I discovered that competition for nest-boxes was probably one of the main reasons why Tree Swallows are monogamous rather than bigamous. In general, it is thought that most birds are monogamous because females prefer to mate with a monogamous male. That way they can get all of his parental care in the form of helping to feed the nestlings and defending the nest. Females that are mated to bigamous males often have to share that male's parental care with the other mate, or else one female (usually the first) gets almost all of the male's assistance and the other female has to fend for herself. This secondary female usually ends up producing fewer offspring. Thus there is a reproductive conflict of interest between the male who would produce more offspring if he mated with two females than if he mated with just one, and the female who would produce more offspring if her mate was monogamous (or at least if she was her mate's primary female).

However, at Beaverhill Lake there is a superabundant supply of food (flying insects) for swallows, and as a result, male parental care is less important to the ability of the female to produce offspring. Even secondary females

(without any male help) can produce as many offspring as females mated to monogamous males. Under these conditions, one might expect bigamy to be more common, because females do not incur a reproductive cost when they breed with a bigamous male. In short, bigamy is beneficial (or at least not costly) to both sexes. Unexpectedly, even at Beaverhill Lake, monogamy is relatively uncommon. It appears that females that have already settled and paired with a male generally keep out potential secondary females. Why do they bother if they do not lose any help from the male? My guess is that each female is defending her nest box and a small area around it (16 m. in diameter) to prevent other swallows from taking over her nest box. Tree Swallows sometimes have vicious fights over nest boxes since natural cavities are hard to come by. Studies at the BBO and elsewhere have indicated that males are more likely to become bigamous when they have at least 2 nest-boxes over 5 m. apart in their territory. Presumably, this distance sufficiently reduces the ability of the "primary" female to exclude other females. These findings are significant because they indicate the importance of competition between and within the sexes in the evolution of mating systems.

Since leaving Alberta I have continued studying monogamy in Tree Swallows with Raleigh Robertson at Queen's University, a leader in the use of "DNA fingerprinting" to study genetic relatedness in wild birds. This is the same technique used in criminal cases in which, for example, the DNA of a suspect is matched with DNA from specimens (blood, sperm, hair) collected at the scene of the crime. In wild birds, we take a few drops of blood from each family member to determine if the mother and father are the genetic parents. Several people have now found that the putative father is not always the genetic father of all the nestlings! This sort of research is of interest to biologists for at least two reasons. First, how individuals maximize the number of offspring they produce is one of the most basic questions of evolution and ecology. Secondly, this research has practical applications in conservation because it allows one to determine if a population is inbred (not a problem with Tree Swallows so far!).

What we found from "fingerprinting" families of Tree Swallows (including some Beaverhill Lake swallows) was quite surprising. Although we rarely saw females copulating with males other than their mate (2% of all observed copulations were with "other" males), many of the males had unrelated nestlings in their nests! There seems to be two patterns of paternity: nests have either no unrelated young in them or many (over 60%) unrelated young in them. Our experiments suggest that female Tree Swallows can control which male fertilizes her eggs by limiting access to copulations during optimum times for fertilization. This has significant implications for the evolution of mating behaviour in "monogamous" bird species. Our next task is to determine why some males get "extra-pair" copulations and other males get "cuckolded". It may be that females prefer extra-pair mates that are healthier or more experienced breeders than the males with whom they are paired.

There is a lot more to learn about Tree Swallows, including such basic things as what influences the number of eggs that a female lays. The BBO has played an important role in all of these studies and I hope will further this important research with the continued help of volunteers. I would like to thank the many BBO members, volunteers and field assistants who helped me do my research, including Rainer Ebel, Jim Faragini, Geoff Holroyd, Stefan Jungkind, Shannon Lord, Cindy McCallum, Renata Osterwaldt, Mike Quinn and Petra Stubbs.



## Appendices

### Appendix 1 - Abbreviations and Terminology Used

The following standard abbreviations for age and sex (Age/sex in capital letters) have been used throughout the report:

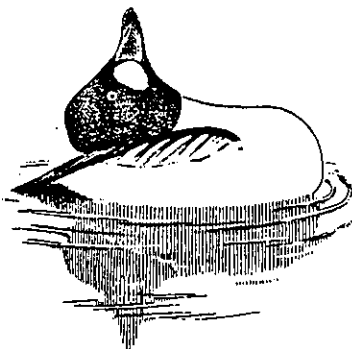
- (age) HY - hatch year, i.e. hatched in the same calendar year as year of encounter;  
AHY - after hatch year, i.e. hatched in a calendar year not the same as year of encounter;  
SY - second year, i.e. hatched in the calendar year preceding the year of encounter;  
ASY - after second year, i.e. confirmed to be neither HY nor SY;  
U - unknown age,
- (sex) F - female;  
M - male;  
U - unknown.

The following terminology, regarding birds encountered that already have a band on their leg, is from the North American Bird Banding Manual:

- "repeat" - a bird banded or encountered by the same bander in the same 10' degree block, less than 90 days previously (but not the same day)
- "return" - a bird banded or encountered by the same bander in the same 10' degree block more than 90 days previously.
- "recovery" - a banded bird found dead. "foreign recovery" a banded bird found dead in a different 10' degree block than that in which it was banded.
- "foreign encounter" - a live banded bird encountered in a different 10' degree block than that in which it was banded.

Informally, the last two definitions are often lumped together under the (incorrect) term "recovery".

Throughout the report, the following race names have been used (for identifiable races) instead of the species name: Myrtle Warbler and Audubon's Warbler for Yellow-rumped Warbler; Slate-coloured Junco for Dark-eyed Junco; Baltimore Oriole for Northern Oriole. Also, the name Traill's Flycatcher has been used to include Alder Flycatchers and flycatchers that could be either Alder or Willow Flycatchers (see Ten Year Summary Report Appendix 2).



1991 BEAVERHILL LAKE SIGHT RECORDS

SPECIES	FIRST RECORD	LAST SPRING	FIRST FALL	LAST RECORD	COMMENTS
RED-THROATED LOON	NO RECORD 91				PR.REC. OCTOBER 3 1978 (DD)
COMMON LOON	*APRIL 21 (DH)				PR.REC. OCTOBER 8 1990 (DH)
PIED-BILLED GREBE	MAY 11 (RF)			OCTOBER 8 (BC)	BREEDING
HORNED GREBE	APRIL 23 (RF)			OCTOBER 8 (BC)	BREEDING
RED-NECKED GREBE	APRIL 20 (PH)			AUGUST 5 (SJ)	BREEDING
EARED GREBE	APRIL 26 (SB)			OCTOBER 8 (BC)	BREEDING
WESTERN GREBE	MAY 5 (EML)			OCTOBER 8 (BC)	BREEDING
CLARK'S GREBE	NO RECORD 91				PR.REC. SEPTEMBER 15 1990 (EML)
AM WHITE PELICAN	APRIL 14 (GH)			SEPT 28 (DH)	BREEDING
DOUBLE-CRESTED CORMORANT	APRIL 26 (SB)			SEPT 21 (EML)	BREEDING
AM BITTERN	MAY 5 (BH)			SEPT 28 (BBO)	BREEDING
GREAT BLUE HERON	APRIL 7 (PH)			OCTOBER 13 (DN)	SUMMER RES.
GREAT EGRET	*MAY 30 (JH)				PR. REC. JUNE 7-11 1987 (PD)
SNOWY EGRET	NO RECORD 91				PR. REC. JUNE 1984 (CM)
BLACK-CROWNED NIGHT HERON	MAY 5 (LG)			OCTOBER 5 (BBO)	BREEDING
TUNDRA SWAN	MARCH 31 (TT)	MAY 26 (MSC)	SEPT 21 (EML)	OCTOBER 13	
TRUMPETER SWAN	JULY 8 (BC)			OCTOBER 9 (DD)	
GR WHITE-FRONTED GOOSE	MARCH 31 (TT)	MAY 18 (EML)	AUGUST 24	SEPT 28 (BBO)	
SNOW GOOSE	APRIL 5 (PH)	MAY 11 (RF)	SEPT 6 (BC)	SEPT 29 (BBO)	
SNOW GOOSE (BLUE)	*APRIL 13 (CF)	APRIL 21 (SJ)			
ROSS'S GOOSE	*MAY 5 (EML)				TRANSIENT
BRANT	*APRIL 8 (PH)?				PROBABLE SIGHTING (1991); PR. REC. MAY 8, SEPT 13, SEPT 24 1978 (DD)
CANADA GOOSE	MARCH 26 (LL)			OCTOBER 8 (BC)	BREEDING
WOOD DUCK	NO RECORD 91				PR. REC. MAY 29 1985 (DD)
GREEN-WINGED TEAL	APRIL 13 (CF)			OCTOBER 8 (BC)	BREEDING
AM BLACK DUCK	NO RECORD 91				PR. REC. AUGUST 23 1987 (BT)
MALLARD	MARCH 28 (RF)			OCTOBER 8 (BC)	BREEDING
NORTHERN PINTAIL	MARCH 30 (BBO)			OCTOBER 8 (BC)	BREEDING
BLUE-WINGED TEAL	APRIL 14 (SB)			OCTOBER 8 (BC)	BREEDING
CINNAMON TEAL	MAY 7 (PH)	MAY 26 (MSC)			NO FALL RECORDS DUE TO DIFFICULT FALL IDENTIFICATION
NORTHERN SHOVELER	MARCH 31 (TT)			OCTOBER 8 (BC)	BREEDING
GADWALL	APRIL 7 (DH)			OCTOBER 8 (BC)	BREEDING
EURASIAN WIGEON	NO RECORD 91				PR. REC. SEPT 26 1990 (RX)
AM WIGEON	MARCH 30 (BBO)			OCTOBER 8 (BC)	BREEDING
CANVASBACK	APRIL 21 (RF)			OCTOBER 8 (BC)	BREEDING
REDHEAD	MARCH 31 (TT)			OCTOBER 8 (BC)	BREEDING
RING-NECKED DUCK	MARCH 31 (TT)			AUGUST 22 (BC)	MAY 20 (EML)
GREATER SCAUP	APRIL 14 (DH)				PR. REC. APRIL 8 1990 (DH)
LESSER SCAUP	MARCH 31 (TT)			OCTOBER 8 (BC)	BREEDING
HARLEQUIN DUCK	*SEPT 21 (TT)				PR. REC. - ONE UNDATED RECORD (S&S)
OLD SQUAW	NO RECORD 91				PR. REC. APRIL 29 1984 (RE)
BLACK SCOTER	NO RECORD 91				PR. REC. MAY 15 1982 (EJ)
SURE SCOTER	*MAY 26 (PS)				PR. REC. MAY 19 1986 (PD)
WHITE-WINGED SCOTER	*MAY 26 (PS)				BREEDING
COMMON GOLDENEYE	MARCH 30 (BBO)			OCTOBER 8 (BC)	BREEDING
BARROW'S GOLDENEYE	NO RECORD 91				PR. REC. UNDATED RECORDS (S&S)
BLUFFHEAD	APRIL 3 (PH)			OCTOBER 8 (BC)	PR. REC. 1987 (BBO)
HOODED Merganser	MAY 18 (EML)	MAY 26 (MSC)		SEPT 21 (EML)	
COMMON Merganser	APRIL 14 (GH)	MAY 23 (MSC)			
RED-BREASTED Merganser	APRIL 14 (DH)	APRIL 27 (BBO)			
Ruddy Duck	MAY 1 (DG)			OCTOBER 8 (BC)	BREEDING

TABLE A (1)

1991 BEAVERHILL LAKE SIGHT RECORDS

SPECIES	FIRST RECORD	LAST SPRING	FIRST FALL	LAST RECORD	COMMENTS
TURKEY VULTURE	NO RECORD 91				PR. REC. AUG 26 1987 (DD)
OSPREY	NO RECORDS 91				PR. REC. MAY 13 1984 (DD)
BAIRD EAGLE	MARCH 31 (TT)	APRIL 7 (DH)	SEPT 18 (DD)	OCTOBER 13 (DH)	
NORTHERN HARRIER	MARCH 30 (BBO)			OCTOBER 17 (DH)	BREEDING
SHARP-SHINNED HAWK	APRIL 14 (DH)			OCTOBER 5 (BBO)	BREEDING
COOPER'S HAWK	APRIL 21 (SJ)			SEPT 21 (EML)	BREEDING
NORTHERN GOSHAWK	APRIL 14 (DH)		SEPT 28 (DD)	NOVEMBER 3 (PH)	
BROAD-WINGED HAWK	*SEPT 6 (BC)				TRANSIENT
SWANSON'S HAWK	APRIL 21 (DH)			OCTOBER 6 (BC)	BREEDING
RED-TAILED HAWK	APRIL 7 (DH)			OCTOBER 13 (DH)	BREEDING
FERRUGINOUS HAWK	*MAY 25 (GH)				VAGRANT
ROUGH-LEGGED HAWK	APRIL 7 (DH)	MAY 26 (MSC)	OCTOBER 3 (DD)	OCTOBER 17 (DH)	
GOLDEN EAGLE	NO RECORD 91				PR. REC. APRIL 13&22 1990 (DH)
AMERICAN KESTREL	APRIL 4 (PH)			JULY 18 (BBO)	TRANSIENT
MERLIN	APRIL 5 (PH)			OCTOBER 5 (BBO)	BREEDING
PEREGRINE FALCON	APRIL 27 (SJ)	MAY 20 (EML)	SEPT 14 (DD)	SEPT 21 (DD)	
GYRFALCON	*NOV 18 (DD)				TRANSIENT
PRAIRIE FALCON	NO RECORD 91				PR. REC. JULY 25 1990 (DD)
GRAY PARTRIDGE	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS
RING-NECKED PHEASANT	YEAR ROUND RESIDENT - CAPTIVE RAISED & RELEASED				SEE WEEKLY RECORDS
RUFFED GROUSE	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS
SHARP-TAILED GROUSE	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS
YELLOW RAIL	JUNE 3 (DN)	JULY 18 (JW)		PR. REC. MAY 20 1990 (RE)	
VIRGINIA RAIL	JUNE 1 (ET)	JUNE 11 (TT)		PR. REC. MAY 25 1984 (EJ)	
SORA	MAY 17 (GM)			SEPT 21 (EML)	BREEDING
AMERICAN COOT	APRIL 4 (PH)			OCTOBER 6 (BC)	BREEDING
SANDHILL CRANE	APRIL 13 (GL)	MAY 25 (RE)	SEPT 15 (JH)	OCTOBER 6 (BC)	
WHOOPIING CRANE	NO RECORD 91				PR. REC. OCTOBER 1966 (DD)
BLACK-BELLIED PLOVER	MAY 11 (RF)	MAY 26 (DD)	AUGUST 22 (BC)	OCTOBER 13 (DN)	
LESSER GOLDEN PLOVER	MAY 5 (EML)	MAY 26 (SJ)	AUGUST 30 (BBO)	OCTOBER 13 (DN)	
SEMPALMATED PLOVER	APRIL 28 (TT)	MAY 26 (PS)	AUGUST 22 (BC)	SEPT 18 (BC)	
PIPING PLOVER	NO RECORD 91				POSSIBLY BRED AT BHL 1976-78 (DD)
KILLDEER	APRIL 7 (DH)			OCT 13 (TT)	BREEDING
BLACK-NECKED STILT	NO RECORD 91				PR. REC. MAY 3 1980 (RE)
AMERICAN AVOCET	APRIL 20 (JL)			OCTOBER 8 (BC)	BREEDING
GREATER YELLOWLEGS	APRIL 14 (DH)	MAY 20 (EML)	AUGUST 22 (BC)	OCTOBER 13 (DN)	
LESSER YELLOWLEGS	APRIL 14 (DH)			OCTOBER 8 (BC)	BREEDING ?
SOLITARY SANDPIPER	MAY 26 (SJ)			AUGUST 10 (DH)	TRANSIENT
WILLET	MAY 4 (GL)			SEPT 7 (DH)	BREEDING
WANDERING TATTLER	NO RECORD 91				PR. REC. SEPT. 2, 1973 (DH)
SPOTTED SANDPIPER	MAY 12 (BH)			AUGUST 26 (BC)	BREEDING?
UPLAND SANDPIPER			JULY 20 (DD)	AUGUST 24 (DD)	
WHIMBREL	MAY 18 (EML)	MAY 26 (DD)			

TABLE A (2)

## 1991 BEAVERHILL LAKE SIGHT RECORDS

SPECIES	FIRST RECORD	LAST SPRING	FIRST FALL	LAST RECORD	COMMENTS
LONG-BILLED CURLEW	NO RECORD 91				PR. REC. UNDATED (S&S)
HUDSONIAN GOOWIT	APRIL 29 (DN)	MAY 11 (BBO)	JULY 8 (BC)	SEPT 13 (DD)<	
MARBLED GOOWIT	MAY 1 (DG)			OCTOBER 6 (BC)	BREEDING
RUDDY TURNSTONE	MAY 17 (GM)	MAY 26 (RF)			
SURFBIRD	NO RECORD 91				PR. REC. SEPT 21 1975 (RK)
RED JOOT	MAY 19 (EML)	MAY 26 (MSC)			
SANDERLING	MAY 17 (GM)	MAY 26 (MSC)	SEPT 6 (BC)	OCTOBER 8 (BC)	
SEMPALMATED SANDPIPER	MAY 11 (RF)	MAY 26 (MSC)	JULY 7 (BC)	OCTOBER 6 (BC)	
WESTERN SANDPIPER	*MAY 17-19 (GM)	UNCONFIRMED SIGHTING			PR. REC. MAY 20 1990 (RE)
LEAST SANDPIPER	MAY 11 (RF)	MAY 26 (MSC)	JULY 7 (BC)	SEPT 28 (DN)	
WHITE-RUMPED SANDPIPER	MAY 11 (TT)	MAY 26 (MSC)			
BAIRD'S SANDPIPER	MAY 5 (EML)	MAY 26 (DD)	JULY 26 (DN)	OCTOBER 6 (BC)	
PECTORAL SANDPIPER	MAY 11 (RF)	MAY 26 (MSC)	JULY 8 (BC)	OCTOBER 13 (DN)	
SHARP-TAILED SANDPIPER	NO RECORD 91				PR. REC. SEPT 27 1987 (EML)
DUNLIN	MAY 20 (TT)	MAY 26 (DD)		OCTOBER 6 (BC)?	
STLT SANDPIPER	MAY 11 (TT)	MAY 26 (BC)	JULY 8 (BC)	SEPT 26 (BC)	
BLUFF-BREASTED SANDPIPER	MAY 18 (TT)<	MAY 26 (MSC)		SEPT 7 (DN)	
RUFF	NO RECORD 91				PR. REC. MAY 8 1978 (DD)
SHORT-BILLED DOWITCHER	MAY 9 (BBO)	MAY 26 (RE)	JULY 8 (BC)	SEPT 6 (BC)	
LONG-BILLED DOWITCHER	MAY 11 (TT)	MAY 26 (MSC)	SEPT 6 (BC)	OCTOBER 13 (DN)	
(DOWITCHER SP.)	MAY 8 (RF)	MAY 26 (MSC)	AUGUST 2 (BC)	OCTOBER 5 (DD)	
COMMON SNPE	APRIL 13 (CF)<			OCTOBER 13 (DN)	BREEDING
WILSON'S PHALAROPE	MAY 5 (BH)			AUGUST 26 (BC)	BREEDING
RED-NECKED PHALAROPE	MAY 11 (TT)	MAY 26 (RE)	AUGUST 26 (BC)	SEPT 15 (JN)	
RED PHALAROPE	NO RECORD 91				PR. REC. SEPT 27 1990 (DD)
PARASITIC JAEGER	NO RECORD 91				PR. REC. OCTOBER 13, 1983 (BBO)
LONG-TAILED JAEGER	NO RECORD 91				PR. REC. SEPT 8-12 1977 (DD)
FRANKLIN'S GULL	APRIL 7 (DN)			OCTOBER 13 (DN)	BREEDING
LITTLE GULL	NO RECORD 91				PR. REC. AUGUST 26 1989 (DD)
BONAPARTE'S GULL	APRIL 20 (RJ)<	MAY 26 (MSC)	AUGUST 10 (DN)	OCTOBER 13 (DN)	
MEW GULL	SEPT 7 (DD)?-PROBABLE SIGHTING				PR. REC. AUG 8 1988 (DD)
RING-BILLED GULL	MARCH 28 (RF)			OCTOBER 13 (DN)	BREEDING
CALIFORNIA GULL	APRIL 21 (SJ)			OCTOBER 13 (DN)	BREEDING
HERRING GULL	APRIL 13 (BBO)	MAY 5 (EML)	JULY 28 (DN)	SEPT 26 (BC)	PR. REC. OCTOBER 22 1926 (RL)
KELAND GULL	NO RECORD 91				PR. REC. MARCH 31 1985 (GH)
GLAUCOUS GULL	NO RECORD 91				PR. REC. MAY 15 1988 (RE)
BLACK-LEGGED KITTYWAKE	NO RECORD 91				
SABINE'S GULL			SEPT 21 (TT)	OCTOBER 13 (TT)	
CASPIAN TERN	*JULY 8 (BC)				PR. REC. MAY 4 1985 (RE)
COMMON TERN	MAY 4 (GL)			AUGUST 26 (BC)	BREEDING
ARCTIC TERN	NO RECORD 91				PR. REC. MAY 11 1985 (RE)
FORSTER'S TERN	MAY 5 (TP)			AUGUST 22 (BC)	BREEDING
BLACK TERN	MAY 11 (RF)			SEPT 7 (DN)	
ANCIENT MURRELET	NO RECORD 91				PR. REC. OCTOBER 2 1983 (DD)
ROCK DOVE	YEAR ROUND RESIDENT - CAN BE FOUND IN AREA FARMS AND IN TOFIELD ANY DAY OF YEAR				
MOURNING DOVE	MAY 20 (EML)			AUGUST 10 (DN)	BREEDING?
BLACK-BILLED CUCKOO	NO RECORD 91				BREEDING; PR. REC. BANDED 1986 & 1987; NEST 1987
GREAT HORNED OWL	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS
SNOWY OWL	*APRIL 14 (DD)				WINTER VISITOR
NORTHERN HAWK OWL	NO RECORD 91				PR. REC. OCTOBER 13 1973 (DD)
BURROWING OWL	NO RECORD 91				PR. REC. MAY 1983 (RS)
LONG-EARED OWL	NO RECORD 91				BREEDING; PR. REC. OCT 2 1988 (BBO)
BOREAL OWL	NO RECORD 91				PR. REC. MAY 15 1983 (EJ)-FOUND DEAD
SHORT-EARED OWL	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS; 2 SIGHTINGS
NORTHERN SAW-WHET OWL	*SEPT 6 (EJ) BANDED				

TABLE A (3)

## 1991 BEAVERHILL LAKE SIGHT RECORDS

SPECIES	FIRST RECORD	LAST SPRING	FIRST FALL	LAST RECORD	COMMENTS
COMMON NIGHTHAWK	NO RECORD 91				PR. REC. AUGUST 28 1988 (BBO)
RUBY-THROATED HUMMINGBIRD	JULY 27 (DB)			AUGUST 18 (DB)	VAGRANT
BELTED KINGFISHER	NO RECORD 91				PR. REC. MAY 22 1990 (RD)
RED-HEADED WOODPECKER	NO RECORD 91				PR. REC. MAY 24 1987 (DN)
YELLOW-BELLIED SAPSUCKER	* MAY 26 (RE)				TRANSIENT
DOWNY WOODPECKER	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS
HARRY WOODPECKER	MAY 26 (MSC)		AUGUST 22 (BC)	DECEMBER 29 (RF)	VAGRANT
NORTHERN FLICKER	APRIL 15 (PN)			SEPT 6 (BC)	BREEDING
PILEATED WOODPECKER	NO RECORD 91				PR. REC. APRIL 30 1988 (EML)
OLIVE-SIDED FLYCATCHER	MAY 26 (SJ)	MAY 31 (BBO)			
WESTERN WOOD-PEWEE	MAY 17 (GM)	MAY 26 (RE)		SEPT 7 (DN)	
YELLOW-BELLIED FLYCATCHER	MAY 26 (SL)	JUNE 15 (JF)			
ALDER FLYCATCHER	MAY 19 (BBO)			SEPT 7 (DN)	BREEDING
WILLOW FLYCATCHER	NO RECORD 91				MAY HAVE BEEN RECORDED ALONG WITH ALDER AS TRAILL'S
LEAST FLYCATCHER	MAY 12 (BD)			SEPT 15 (BBO) B	BREEDING
EASTERN PHOEBE	APRIL 14 (DN)			AUGUST 26 (BC)	BREEDING
SAY'S PHOEBE	MAY 7 (PH)	MAY 11 (CF)<			
GREAT CRESTED FLYCATCHER	NO RECORD 91				PR. REC. JULY 12 1987 (RE)
WESTERN KINGBIRD	NO RECORD 91				PR. REC. JUNE 7 1979 (RS)
EASTERN KINGBIRD	MAY 9 (BBO)			SEPT 7 (DN)	BREEDING
HORNED LARK	MARCH 30 (BBO)			JULY 18 (JW)	BREEDING
PURPLE MARTIN	MAY 11 (RF)			AUGUST 12 (BBO)	BREEDS(TO/FIELD)
TREE SWALLOW	APRIL 8 (PN)			SEPT 21 (EML)	BREEDING
N. ROUGH-WINGED SWALLOW	MAY 27 (EJ)	JUNE 23 (DN)			
BANK SWALLOW	*AUGUST 22 (BC) 2000+				
CLIFF SWALLOW	MAY 11 (RF)			SEPT 7 (DN)	BREEDING
BARN SWALLOW	MAY 11 (RF)			SEPT 18 (BC)	BREEDING
BLUE JAY	DECEMBER 30 '90 MAY 26 (MSC)	AUGUST 31 (GH)	DECEMBER 29 (RF)		
BLACK-BILLED MAGPIE	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS
AMERICAN CROW	APRIL 7 (DN)			OCTOBER 13 (DN)	BREEDING
COMMON RAVEN	DECEMBER 30 '90 MAY 27 (EJ)	AUGUST 10 (DN)		DECEMBER 29	
BLACK-CAPPED CHICKADEE	YEAR ROUND RESIDENT				SEE WEEKLY RECORDS
BOREAL CHICKADEE			JULY 31 (ED)	OCTOBER 6 (BC)	TRANSIENT
RED-BREASTED NUTHATCH	APRIL 24 (PH)			SEPT 18 (BC)	BREEDING?
WHITE-BREASTED NUTHATCH	*SEPT 7 (DN)				PR. REC. MAY 12 1990 (DN)
BROWN CREEPER	NO RECORD 91				PR. REC. SEPT 28 1990 (EJ)
HOUSE WREN	MAY 18 (GL)			SEPT 15 (BBO)	BREEDING
SEDGE WREN	JUNE 1 (BBO)			AUGUST 2 (SJ)	BREEDING
MARSH WREN	MAY 18 (EML)			SEPT 28 (DN)	BREEDING
GOLDEN-CROWNED KINGLET	*SEPT 28 (DN)				PR. REC. OCTOBER 2 1989 (BBO)
RUBY-CROWNED KINGLET	APRIL 27 (SJ)	MAY 26 (MSC)	SEPT 18 (BC)	SEPT 28 (BBO)	
MOUNTAIN BLUEBIRD	APRIL 3 (PN)			SEPT 15 (BBO)	BREEDING
TOWNSEND'S SOLITAIRE	NO RECORD 91				PR. REC. APRIL 11 1981 (DD)
VEERY	MAY 26 (SJ)	MAY 29 (EJ)			BREEDING
GRAY-CHEEKED THRUSH	*MAY 29 (EJ)				PR. REC. MAY 1985, '86 (EJ)
SWANSON'S THRUSH	MAY 25 (MSC)			SEPT 18 (BC)	BREEDING
HERMIT THRUSH	APRIL 26 (GL)	MAY 19 (BBO)		SEPT 28 (BBO)	
AMERICAN ROBIN	APRIL 7 (DN)			SEPT 26 (BC)	BREEDING
GRAY CATBIRD	MAY 25 (MSC)			AUGUST 26 (BC)	BREEDING?
NORTHERN MOCKINGBIRD	NO RECORD 91				PR. REC. MAY 14 1975 (DD)
BROWN THRASHER	*MAY 20 (EML)				BREEDING (EJ); PR. REC. 1988 (EJ)

TABLE A (4)

## 1991 BEAVERHILL LAKE SIGHT RECORDS

SPECIES	FIRST RECORD	LAST SPRING	FIRST FALL	LAST RECORD	COMMENTS
AMERICAN (WATER) PIPT	APRIL 20 (RJ)<	MAY 17(GM)	SEPT 6 (BC)	OCTOBER 13 (DN)	
SPRAGUE'S PIPT	MAY 11 (RF)			JULY 26 (DN)	BREEDING
BOHEMIAN WAXWING		APRIL 7(DN)	OCTOBER 30 (RF)	DECEMBER 29 (RF)	WINTER VISITOR
CEDAR WAXWING	JUNE 1 (BBO)			SEPT 15 (BBO)	BREEDING
NORTHERN SHRIKE	APRIL 7 (DN)	APRIL 27 (SJ)	SEPT 28 (DN)	OCTOBER 13 (DN)	
LOGGERHEAD SHRIKE	NO RECORD 91				BREEDING
EUROPEAN STARLING	YEAR ROUND RESIDENT - FOUND IN FARMYARDS & TOFIELD AT ANYTIME				
SOLITARY VIREO	MAY 27 (EJ)		AUGUST 12 (BBO)	AUGUST 24 (SJ)	
WARBLING VIREO	MAY 18 (GL)			SEPT 6 (BC)	BREEDING
PHILADELPHIA VIREO	MAY 20 (DN)	JUNE 1 (BBO)	AUGUST 24 (SJ)	AUGUST 31 (BBO)	
RED-EYED VIREO	MAY 19 (BBO)			SEPT 2 (SJ)	BREEDING
TENNESSEE WARBLER	MAY 25 (MSC)	MAY 26 (EJ)	JULY 7 (BBO)	AUGUST 31 (BBO)	
ORANGE-CROWNED WARBLER			AUGUST 12 (SJ)	SEPT 10 (BBO)	
YELLOW WARBLER	MAY 11 (TT)			SEPT 10 (BBO)	BREEDING
CHESTNUT-SIDED WARBLER	*SEPT 21 (EML)				PR.REC. AUGUST 30 1990 (SJ)
MAGNOLIA WARBLER	MAY 25 (EJ)	MAY 26 (EJ)	AUGUST 18 (SJ)	SEPT 6 (BBO)	
CAPE MAY WARBLER			AUGUST 24 (SJ)	SEPT 6 (EJ)	
BL.-THROATED BLUE WARBLER	NO RECORD 91				PR.REC. OCTOBER 4 1928 (S&S)
YEL.-RUMPED(MYRTLE)WARBLER	APRIL 26 (GL)	MAY 26 (MSC)	JULY 24 (SJ)	OCTOBER 6 (BC)	
YEL.-RUMPED(AUDUBON'S)WARB.	*AUGUST 25 (JF)				
TOWNSEND'S WARBLER			AUGUST 10 (JF)	AUGUST 24 (SJ)	NO PREVIOUS RECORD
BL.-THROATED GREEN WARBLER	MAY 25 (EJ)			SEPT 5(EJ)	
BLACKBURNIAN WARBLER	NO RECORD 91				PR.REC. AUGUST 24 1989 (SJ)
PALM WARBLER			AUGUST 24(SJ)	OCTOBER 5(TT)<	
BAY-BREASTED WARBLER	*SEPTEMBER 21 (EML)				
BLACKPOLL WARBLER	MAY 17 (GM)	MAY 27(BBO)	JULY 17 (JD)	AUGUST 31 (BBO)	
BLACK-AND-WHITE WARBLER	MAY 25 (EJ)	MAY 27 (EJ)	JULY 17(BBO)	SEPT 7 (EJ)	
AMERICAN REDSTART	MAY 25 (EJ)	MAY 29 (EJ)	AUGUST 10(BBO)	AUGUST 31 (BBO)	
OVENBIRD	MAY 27 (EJ)		AUGUST 10 (BBO)	AUGUST 23 (JF)	
NORTHERN WATERTHRUSH	MAY 26 (EJ)		AUGUST 10 (BBO)	SEPT 7 (EJ)	
CONNECTICUT WARBLER	MAY 25 (EJ)	JUNE 8 (TT)<	AUGUST 22 (BC)		NO PREVIOUS RECORD
MOURNING WARBLER	MAY 25 (EJ)	JUNE 1 (BBO)	AUGUST 18 (SJ)	SEPT 6 (BBO)	
COMMON YELLOWTHROAT	MAY 12 (BH)			SEPT 6(BC)	BREEDING
WILSON'S WARBLER	MAY 25 (RF)	MAY 26 (EJ)	AUGUST 10 (BBO)	SEPT 15 (BBO)	
CANADA WARBLER	MAY 25 (EJ)	MAY 26 (EJ)	JULY 31 (BBO)	AUGUST 31 (GH)	
SCARLET Tanager	NO RECORD 91				PR.REC.MAY 11 1985 (PD)
WESTERN Tanager	MAY 27 (SJ)	MAY 29 (EJ)			
ROSE-BREASTED GROSBREAK	MAY 25 (RF)	MAY 27 (BBO)			
INDIGO BUNTING	NO RECORD 91				PR.REC.MAY 24 1990 (EJ)
DICKCISSEL	* FEMALE MAY 19 (LB)? UNCONFIRMED SIGHTING				NO PREVIOUS RECORD

TABLE A (5)

## 1991 BEAVERHILL LAKE SIGHT RECORDS

SPECIES	FIRST RECORD	LAST SPRING	FIRST FALL	LAST RECORD	COMMENTS
AMERICAN TREE SPARROW	APRIL 14 (GH)	APRIL 23 (RF)	SEPT 15 (BBO)	OCTOBER 13 (DN)	
CHIPPING SPARROW	MAY 11 (RF)			AUGUST 24 (SJ)	BREEDING
CLAY-COLOURED SPARROW	MAY 9 (BBO)			SEPT 28 (BBO)	BREEDING
VESPER SPARROW	APRIL 29 (DN)			JUNE/JULY (BC)	BREEDING
LARK SPARROW	*MAY 18 (TT)				NO PREVIOUS RECORD
LARK BUNTING	*JUNE 15 (EO)				PR.REC. MAY 15 1984 (RE)
SAVANNAH SPARROW	APRIL 24 (PH)			SEPT 21 (EML)	BREEDING
BAIRD'S SPARROW	NO RECORD 91				PR.REC. MAY 1989 (RE)
LECONTE'S SPARROW	MAY 11 (RF)			SEPT 26 (BC)	BREEDING
SHARP-TAILED SPARROW	MAY 26 (MSC)			SEPT 18 (BC)	BREEDING
FOX SPARROW	NO RECORD 91				TRANSIENT
SONG SPARROW	APRIL 14 (DN)			SEPT 15 (BBO)	BREEDING
LINCOLN'S SPARROW	MAY 9 (PS)	MAY 26 (MSC)	AUGUST 18 (SJ)	SEPT 15 (BBO)	
SWAMP SPARROW	MAY 19 (SJ)	MAY 26 (EJ)	SEPT 6 (EJ)	OCTOBER 6 (BC)	
WHITE-THROATED SPARROW	MAY 5 (A/GS)			SEPT 21 (EML)	BREEDING
WHITE-CROWNED SPARROW	MAY 8 (PP)	MAY 26 (MSC)	SEPT 6 (BC)	SEPT 15 (BBO)	
HARRIS' SPARROW	MAY 12 (PN)	MAY 17 (GM)?		SEPT 7 (DN)	
DARK-EYED JUNCO	APRIL 7 (DN)	APRIL 27	AUGUST 22 (BC)	OCTOBER 6 (BC)	
MC COWAN'S LONGSPUR	NO RECORD 91				PR.REC. SEPT 12 1977 (MM)
LAPLAND LONGSPUR	MARCH 28 (RF)	MAY 8(RF)	SEPT 7 (DN)	OCTOBER 13 (DN)	
SMITH'S LONGSPUR	*SEPT? (OD) PROBABLE SIGHTING				TRANSIENT
CHESTNUT COLLARED LONGSPUR	NO RECORD 91				BREEDING; PR.REC. UNDATED (S&S)
SNOW BUNTING	APRIL 8 (RF)	MAY 20 (EML)	OCTOBER 6 (BC)	DECEMBER 6 (RF)	
BOBOLINK	MAY 18 (EML)			JUNE 8 (BBO)	BREEDING
RED-WINGED BLACKBIRD	APRIL 7 (DN)			OCTOBER 13 (DN)	BREEDING
WESTERN MEADOWLARK	APRIL 8 (RF)			SEPT 21 (EML)	BREEDING
YELLOW-HEADED BLACKBIRD	APRIL 21 (DN)			SEPT 10 (BBO)	BREEDING
RUSTY BLACKBIRD			SEPT 18 (BC)	OCTOBER 17 (DN)	
BREWER'S BLACKBIRD	APRIL 29 (DN)			SEPT 15 (BBO)	BREEDING
COMMON GRACKLE	APRIL 21 (DN)			SEPT 7 (DN)	BREEDING
BROWN-HEADED COWBIRD	MAY 5 (TS)			SEPT 15 (BBO)	BREEDING
NORTHERN ORIOLE	MAY 18 (GL)			AUGUST 22 (BC)	BREEDING
PINE GROSBREAK			DEC 20 (DN)	DEC 29 (MY)	WINTER RESIDENT; NO PREVIOUS RECORD
PURPLE FINCH	APRIL 14 (GH)	MAY 5 (BH)		AUGUST 22 (BC)	
WHITE-WINGED CROSSBILL			DECEMBER 7 (TOFIELD) (RF)		WINTER VAGRANT; NO PREVIOUS RECORD
COMMON REDPOLL		NOV 10 (RF)	DEC 29 (MY)		WINTER RESIDENT
HOARY REDPOLL		DEC 20 (DN)	DEC 29 (MY)		WINTER RESIDENT; NO PREV. RECORD EXCEPT (MY)
PINE SISKIN		JULY 24 (SJ)	AUGUST 8 (SJ)		TRANSIENT
AMERICAN GOLDFINCH	MAY 20 (EML)			SEPT 26 (BC)	BREEDING
EVENING GROSBREAK			DECEMBER 12 (DN)	DEC 29 (MY)	WINTER VISITOR
HOUSE SPARROW	YEAR ROUND RESIDENT - FOUND IN FARMYARDS AND TOFIELD AT ANY TIME*				

## COMMENTS:

(MY) refers to Mike Yacuk's farm which is one mile to the west of our defined area but is included for his winter sightings.

< indicates source as Edmonton Journal - Cam Findlay's "Birdwatching" column. Information as to date and/or location may be inaccurate and is unconfirmed by compiler.

\* indicates our only record for the year

(MSC) - from May Species Count records

PR.REC. - previous records are from the following sources:

Campbell, L. 1990 Annual Report. Beaverhill Bird Observatory.  
 Dekker, D. 1991. Prairie Water. BST Publications, Edmonton. 144pp.  
 Jungkind, S. 1990. Ten year summary report 1980-1989. Beaverhill Bird Observatory.  
 Lister, R. 1979. The Birds and Birders of Beaverhill Lake. Edmonton Bird Club Publication. 264pp. (RL)  
 Salt, W.R. and J.R. Salt. 1976. The Birds of Alberta. Hurtig Publishers, Edmonton. 498pp. (S&S)

TABLE A (6)

Thank you to the following people whose initials appear in the tables of this report:

Debra Belmonte (DB)	Jim Henry (JH)	Dave Nadeau (DN)
Suzanne Benoit (SB)	Otto Hohn (OH)	Pat Nolan (PN)
L. Blackadder (LB)	Geoff Holroyd (GH)	Jiri Novak (JN)
Bob Carroll (BC)	Brian Hornby (BH)	Elson Olorenshaw (EO)
Dick Dekker (DD)	Rhonda Johnson (RJ)	Pat Payne (PP)
Ross Dickson (RD)	Edgar T. Jones (EJ)	Tony Pierce (TP)
Peter Dunn (PD)	Stefan Jungkind (SJ)	Ron Slagter (RG)
Erica Dunn (ED)	Richard Kaulke (RK)	Tim Stanton (TS)
Rainer Ebel (RE)	Jim Lange (JL)	A&G. Stoyke (A/GS)
Roy Fairweather (RF)	Lorne LeClaire (LL)	Petra Stubbs (PS)
Jim Faragini (JF)	Gerry Lunn (GL)	Terry Thormin (TT)
Cam Findlay (CF)	Chel Macdonald (CM)	Eric Tull (ET)
David Graham (DG)	Greg Macdonald (GM)	Bruce Turner (BT)
Peter Haddock (PH)	Ed Mah-Lim (EML)	Jim Wolford (JW)
Pat Harris (PHs)	Martin McNicholl (MM)	Mike Yaciuk (MY)

And thank you to the following people who also contributed to the sight records through their participation in Beaverhill Bird Observatory activities or by submitting their personal checklists:

Karen Aldred	Ivan Kaderabek
Elisabeth Beaubien	Steve Lane
Mike Breauer	Gwendolen Lunn
Jim Christie	Jennifer Lunn
Bob Corbett	Cindy McCallum
Joan DeGeer	Scott Millar
Al DeGroot	Dick Morsen
Donna DeMulder	Kathleen New
Peter DeMulder	Hanna Noerenberg
Karen Dudley	Jack Park
Josh Faragini	Terilyn Paulgaard
Frank Fraser	John Poole
Sharon Henry	Ann Sanfacon
Alan Hingston	Tony Schlechter
Dale Holmes	Debbie Schwartz
Michael Holroyd	Margaret Shirlen
Jeremy Hussell	D. Simmonds
David Hussell	Mikalaj Warszynsk
Peter Hussell	T.&G. Wolff-von-Selzam
Jeanne Jones	

A special thanks to Dick Dekker, Ed Mah-Lim, Ed Jones, Stefan Jungkind, Elson Olorenshaw, Bob Carroll, and Dave Nadeau who submitted separate, detailed reports.

## Literature cited

Throughout the report, references to previous BBO annual reports are given as "19\*\* Annual Report", with \*\* representing the appropriate year. All other references are in standard form.

- Campbell, L. 1991. Beaverhill Bird Observatory 1990 Annual Report. Beaverhill Bird Observatory, Edmonton.
- Dekker, D. 1991. "Prairie Water" (144 pp). Edmonton.
- Dunn, E. H. 1992. Using Migration Counts to monitor Canadian Landbird Populations: Background and Status. Long Point Bird Observatory, Point Rowan, Ontario.
- Dunn, P. O. 1989. The maintenance of monogamy in Black-billed Magpies and Tree Swallows. PhD dissertation, University of Alberta, Edmonton.
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- Holroyd, G. 1986. Beaverhill Bird Observatory 1985 Annual Report. Edmonton Naturalist 15(2):5-11.
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- 1991. Last Mountain Lake Bird Banding Station First Annual Report, 1990. Canadian Wildlife Service, Saskatoon.

## Acknowledgement of participation and support

During 1991, the BBO Society business was taken care of by the following executive and appointed personnel:

Chairperson:	Geoff Holroyd	Bands and permits:	Stefan Jungkind and Jim Faragini
Vice-chairperson:	Petra Stubbs	Tofield liaison:	Roy Fairweather
Field Director:	Stefan Jungkind	Librarian:	Joan DeGeer
Secretary:	Steve Lane	Birdathon coord.	Debra Belmonte
Treasurer:	Elson Olorenshaw	Natural Areas liaison:	Michael Best and Jaimie Stanley
Editor:	Debra Belmonte		
Director at large:	Jim Faragini		

The field activities were accomplished by the following licenced banders: Stefan Jungkind (21 days), Jim Faragini (14 days), Steve Lane (9 days), Joan DeGeer (6 days), Rainer Ebel (3 days), Geoff Holroyd (3 days), Petra Stubbs (3 days), David Hussell, Erica Dunn (2 days) and Jim Lange (1 day).

They were assisted at various times by the following people: Karen Aldred, Debra Belmonte, Mike Breauer, Bob Carroll, Jim Christie, Bob Corbett, Al deGroot, Peter DeMulder, Karen Dudley, Joshua Faragini, Roy Fairweather, Leland Ferguson, Frank Fraser, Alan Hingston, Michael Holroyd, Dale Holmes, Brian Hornby, Peter and Jeremy Hussell, Ivan Kaderabek, Gerry and Jennifer Lunn, Gwendolen Lunn, Scott Millar, Donna Mirtle, Kathleen New, Elson Olorenshaw, Jack Park, Terilyn Paulgaard, Tony Pierce, Ann Sanfacon, Tony Schlenker and Mikolaj Warszawski.

Grants and other assistance were received from:

Government of Alberta: Community, Recreation and Culture grant

Baillie Fund : grant to support MAPPS project

John Janzen Nature Centre: meeting place

Provincial Museum: meeting place

Donations (funds, unless otherwise specified) were received from: Leslie Beattie, Bill Brown, Al deGroot, Ross Dickson, Rainer Ebel, Jim Faragini, Patrick Harden, Alan Hingston, E. Otto Hohn, Lisa Holtorf, David Hussell, Roger Jones, Emily Kaldestad, Murray Mackay, Dr. Herb Pascoe, Roger Steele and Linda Wittingham (blackbird trap).

The BBO thanks all of the above for their generous support. Without it we could not have continued!

The Beaverhill Bird Observatory Society is a non-profit organization consisting of volunteers from all walks of life who are dedicated to research, recreation and education in birds and other natural history. Elected directors take care of the administrative side of running the field station as a bird banding, research and interpretive centre through regular meetings and donated time and effort.

Membership is open to anyone and includes a subscription to the BBO newsletter (at least 3 issues per year), the opportunity to participate in BBO activities and events (and assist in planning them) and the possibility of training in bird banding. Two full membership meetings are held each year - one in spring and one in the fall.

The BBO provides support to amateur student and professional field naturalists in pursuing studies of bird life and related fields at Beaverhill Lake. When funding allows, Field Assistants are employed to help man the field station during the summer months.

The following publications have resulted from the field work at the BBO field station.

- Campbell, L. (ed.) 1991. Beaverhill Bird Observatory 1990 Annual Report. Edmonton.
- Dunn, P. O. 1989. The maintenance of monogamy in Black-billed Magpies and Tree Swallows. PhD dissertation University of Alberta. Edmonton.
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- and G.L. Holroyd. 1989. Nestling and egg destruction by House Wrens. Condor 91 : 206-207.
- Quinn, M. 1990. Nest-site and prey of a pair of Sharp-shinned Hawks in Alberta. Journal of Raptor Research, 25(1) pp. 18-19.

Membership fees (annual except "Life membership") are:

Individual	\$10
Family	\$20
Corporate	\$25
Supporting	\$25
Sustaining	\$100
Life	\$500

Tax deductible donation receipts are available for any amounts in excess of \$10.

If you wish to join, please send your name, address and phone number, along with a cheque for the appropriate amount (made out to the Beaverhill Bird Observatory) to:

The Treasurer  
 Beaverhill Bird Observatory  
 P.O. Box 1418  
 Edmonton, Alberta  
 T5J 2N5



# Look for bird bands!

## Why?

Every year, millions of birds are banded by amateur and professional researchers across North America (including between 2 and 3 thousand by Beaverhill Bird Observatory personnel) in an effort to determine migration routes, wintering and breeding grounds and longevity among other topics. Each bird receives its own individual band number so that if you find a banded bird it can be traced to a banding location and date. Every band number traced in this way can provide important information about the topics mentioned above.

## How?

Any bird that can be handled (dead or alive) should be checked for bands on its leg - but take care not to injure a live one or jeopardize its chance of survival. Road and window casualties, predator (including cats) victims, weather and building mortalities can all provide possibilities of finding a bird band.

## When?

Banded birds can be found any time, but migration (March - June and August - October) is the most likely time. Right after storms or low pressure systems are good times to look for bird casualties that might have bands on their legs.

## What do you do if you find one?

Please write down the following information on any banded bird that you find:

- 1) All the numbers on the band
- 2) When (date) the bird was found
- 3) Location (geographic) where it was found
- 4) Species (if you can determine)
- 5) Condition of bird (if dead - how it died)
- 6) How you found the bird (e.g. cat brought it in)

and send this information to:

Bird Banding Office  
Canadian Wildlife Service  
Ottawa, Ontario  
K1A 0E7

In return you will receive a certificate acknowledging your find and information on the origin (location and date) of the bird.