Beaverhill Bird Observatory



1997 Annual Report

Christine Rice and Jason Duxbury, Editors December, 1998

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

The Beaverhill Bird Observatory Society is a non-profit organization composed of a variety of volunteers dedicated to developing an understanding of the birds and other natural history at Beaverhill Lake and elsewhere. A board of elected Directors administers the society and operates the field station as a bird banding, research and interpretive centre.

Membership is open to anyone and includes a subscription to *The Willet* (the BBO newsletter), the opportunity to participate in BBO activities and events (and assist in planning them) and to be trained 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 pursuit of studies of bird life and related fields at Beaverhill Lake and elsewhere. Student field staff are employed to operate the station during the summer months.

Membership fees are:

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

Tax deductible receipts are issued for donations. 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, AB T5J 2N5

ACKNOWLEDGEMENTS

The Beaverhill Bird Observatory wishes to thank the funding agencies who together make this research possible with their generous grants and support. Great thanks to Employment and Immigration Canada (SEED), Alberta Advanced Education and Career Development (STEP), Environment Canada - Canadian Wildlife Services, Alberta Recreation Parks and Wildlife Foundation, Canada Trust, Ducks Unlimited, Manning Diversified Forest Products Research Trust Fund, J.B. Baillie Memorial Fund, The Commission for Environmental Cooperation (NAFTA) and many individual supporters.

The quality of the research at the Beaverhill Bird Observatory (BBO) is primarily due to devoted and generous people. Special thanks are extended to Lisa Takats and Jim & Barb Beck who regularly and tirelessly devote their time and energy in support of the BBO. Many thanks to the 1997 staff, namely Elsabe Kloppers, Karen Garvin, Kim Pearson and Jeff Sleno for their dedication to quality field research. We would like to thank the authors of past reports that aided in the compilation of this report including the 1997 field staff, Geoff Holroyd, Petra Rowell, Elson Olorenshaw, Jason Duxbury, Josh Bilyk and Lisa Takats. Thanks also goes to Jason Duxbury for redesigning the cover for the annual report. Thank you to everyone who contributed to the BBO's activities this season.

INTRODUCTION

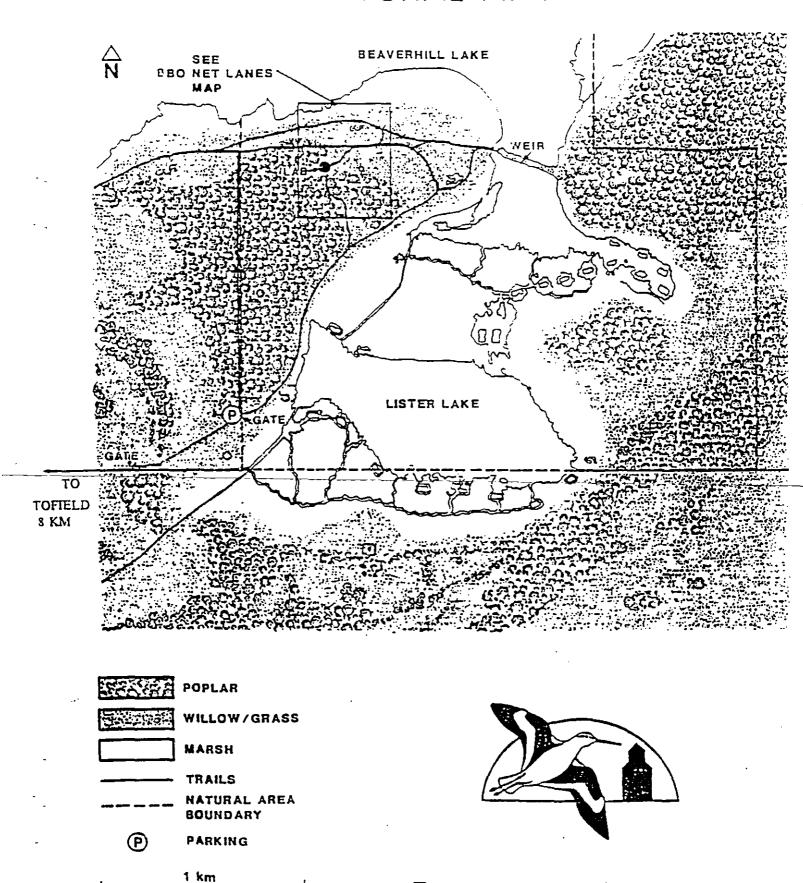
Beaverhill Lake is a large, shallow body of water located in the aspen-parkland ecoregion of central Alberta. Near the Town of Tofield, approximately 70 km SE of Edmonton, it is a popular place to birdwatch. With its large mudflats, extensive sedge, grassland and willow complexes and surrounding aspen forest, this lake is a haven for many species of wildlife. In the spring and fall, the area provides a staging ground for migratory waterfowl, shorebirds and passerines.

The rich diversity of wildlife in the Beaverhill area attracts deserving attention. Many scientific studies have been conducted here by people like William Rowan (Ainley 1983), Robert Lister (1979), Dick Dekker (1991), and Roy Fairweather (1995). Ducks Unlimited has also completed several waterfowl projects in the area, such as providing spring waterfowl staging areas and breeding islands in Lister Lake. Beaverhill Lake has gained international recognition under the RAMSAR wetland agreement and has been acknowledged as a Natural Viewpoint by the Canadian Nature Federation. The Alberta Government has declared the southeast corner around Lister Lake, Pelican Islands and Dekker Islands as the Beaverhill Lake Natural Area, and the Beaverhill Bird Observatory is the Natural Area Steward.

The Beaverhill Bird Observatory (BBO) was founded in 1984 as a joint committee of the Edmonton Bird Club and Edmonton Natural History Club. Now an individual society, the BBO is a non-profit, volunteer organization. Research is conducted by field staff based out of the lab on the southeast corner of Beaverhill Lake (Figure 1).

The primary function of the field station is bird banding and censusing as part of the Canadian Network of Monitoring Stations and the North American Monitoring of Avian Productivity and Survivorship (MAPS) programs. In addition, projects monitoring raptor migration and resident amphibians were launched this field season. This annual report will summarize these and other activities at the BBO in 1997.

NATURAL AREA



1:20,000

Beaverhill Bird Observatory

EXECUTIVE COMMITTEE

The goal of the Executive Committee is to use financial, human and physical resources effectively and responsibly to ensure the growth and continuation of the Beaverhill Bird Observatory Society.

The 1997 Executive (prior to November 1):

Chairman Jason Duxbury
Treasurer Elson Olorenshaw
Recording Secretary Geoff Holroyd
Past Chairman Petra Rowell

Directors-at-large: Lisa Takats (*The Willet* newsletter editor)

Jim Faragini (maintainance) Al de Groot (maintainance)

Chairman's Report - Jason Duxbury

One could give the banding season of 1997 a number of names. It was a summer of birds, banding and building. It was the "Year of Extreme Weather" with eight inches of snow collapsing trees on May 21st and by May 31st temperatures reached 20 C by 8:30 am. Complaints switched from "there's too much rain" to "when is it going to rain" and back again. June 22nd saw Tofield flood to truck fender height, but temperatures sweltered over the 30 C mark on many occasions. While numerous banding days were cut short or cancelled due to the extreme weather, the year-end tallies were still very interesting. Overall, 2692 birds were caught and 2339 banded. One of the nicest surprises of the year was that the number of warbler species exceeded 20 with a couple of rarities stopping in.

The year may also have been termed the "Year of the Voles", as there density exploded in time for spring. This peak probably lead to what could have been called the "Year of the Owls". With such a high density of rodents, there was noticeable increase in the number of owl sightings. An irruption of Short-eared Owls was a special treat. These medium sized owls were seen on 103 occasions during the banding season. Other owls seen in or around the natural area were Northern Saw-whet Owls, Great Horned Owls and Long-eared Owls.

Other species of birds of prey were also being monitored as the BBO's Lisa Takats initiated the Raptor Monitoring Program in the natural area. With the use of numerous trapping methods, the BBO staff managed to capture and band 6 species of raptors. Long-term sight records will be combined with banding results in an attempt to monitor the fall migration of birds of prey.

A long with monitoring songbirds and raptors, the BBO is now monitoring amphibians and reptiles. The past year marked the first year of the Alberta Environmental Protection-University of Alberta supported RANA project, recording frog, toad, salamander and snake sightings for a long term population monitoring project.

The past year will also be seen for its resurgence of the number of volunteers and visitors at the lab. Many new volunteers banders were trained, and a dedicated crew of BBO executive members built a new bunkhouse on site. An overachieving member of the executive had the extra energy to dig a new outhouse (still a room with a view!). The increasing number of people touring the observatory during the Snow Goose Festival was enhanced by those stopping by during the rest of the summer. Another increase was due to the hiring of a small army of staff. The "Year of the Staff" began with Elsabe Kloppers, Karen Garvin and Kim Pearson, but was supplemented with Jeff Sleno when Kim gave up the life of a bander to become a park warden in Waterton Lakes National Park. The fifth and final employee, Christine Rice, was hired later in the summer to band raptors and monitor songbird migrations until they ended in October.

1997 could also be the "Year of the Delectables" as the staff became regulars at Mom's Ice Cream Corral ("Screamers" – yum!), and Janos Kovacs' crepes were a smashing success for the second year in a row. Janos has now been appointed Head Chef at the annual Beaverhill Bird Observatory Crepe Spectacular. An event not to be missed!

Both Videotron and the Life Network ("The Bird Guy") came out to the lab to do some filming. If bribing new recruits with food won't work, we can only hope the "high profile" TV exposure will help spark even more interest. Whether they want to band, birdwatch or wield hammers, new volunteers will always be a welcome sight.

Activity definitely picked up at the Beaverhill Bird Observatory in 1997, and we now look towards the banding season of 1998 wondering what is in store. What will the songbird migration be like? Will it snow in May? Will the Short-eared Owls return? How many crepes will we eat? We shall see... we shall see.

FINANCIAL MATTERS

The goal of this committee is to develop and maintain a strong financial position to support all BBO activities - to provide adequate funds for BBO operations and projects. The major portion of our funding is used for payment of wages for University students or graduates carrying out banding and other related scientific research studies.

1997 Sponsors

Field research conducted in 1997 would not have been possible without the support of Employment and Immigration Canada (SEED), Alberta Advanced Education and Career Development (STEP), Environment Canada - Canadian Wildlife Services, Alberta Recreation, Parks and Wildlife Foundation, Canada Trust, Ducks Unlimited, Manning Diversified Forest Products Research Trust Fund, J.B. Baillie Memorial Fund and many individual supporters. Great thanks to everyone.

Treasurer's Report - Elson Olorenshaw

Beaverhill Bird Observatory Society INCOME Jan 1,1997 TO Dec 31,1997

REVENUE			EXPENSE		
REVENUE			EXPENSES		
Memberships		540.00	Office- Mail Box	123.05	
Grant-Alta Govt Step	3,367.00		Office- Stationery	107.62	
Grant-Baillie Fund	1,000.00		Office- Postage	268.21	
Grant-Environment Canada	22,000.00		Office- Printing	152.90	
Grant-Can Govt SEED	2,800.00		Office-Newsletter	102.56	
Grant-Manning Div For Prot	5,000.00		Office- Reports/manuals	338.00	
Grant-RPW	13,500.00		Telephone	82.79	
Grant-Ducks Unlimited	13,542.00		Office- Hisc	892.33	
Total Grants		61,209.00	Total Office Supplies	072.03	2,057.46
Donations	5,974.12	,	insurance		324.59
Donation Box- Bate	3.00		Property Taxes		52.85
Donation Box- Lab	60.93		Bank Charges		111,79
Total Donations		6,038.05	Repairs & Maintenance		519.40
Interest		18.42	Nets 4 Poles		1,880.86
GST Refund		138.35	Bands & Equipment		307.46
Sales-Checklists	100.00		Snow Goose Fest.Expense	83.54	471.40
Sales- Calengars	902.00		Sale Items- Calendars	385.00	
Sales- Pins	150.00		Biodiversity Study Expense	869.56	
Sales- T-Shirts	8.55	95	Sale item Cost - Total	003100	1,338.10
Sales- Pancake B'fast	10.25		Educational Courses		18.00
Sales- Misc	71.00		Memberships		35.00
Snow Goose Fest. Income	47.54		Raptor Project Expenses		885.30
Net Sales		1,299.34	Travel Expense	2,990.00	400100
TOTAL REVENUE		69,243.16	Total Travel Expense		2,990.00
		33/2:33	GST Expense		6.96
			Wages Expense	39,515.36	0130
TOTAL REVENUE	-	69,243.16	EI Expense	1,588.11	
		,	CPP Expense	935,10	
			Total Wages & Benefits	700110	42,038.57
			Calgary BBS		1,000.00
			Lesser Slave Bird Ob	. •	4,000.00
		·	TOTAL EXPENSES	_	57,586.35
			TOTAL EXPENSE	-	57,586.35
			INCOME	•	11,656.81

BEAVERHILL BIRD OBSERVATORY SOCIETY P.O. Box 1418 Edmonton, Alberta T5J 2N5

Beaverhill Bird Observatory Society BALANCE SHEET Dec 31,1997

ASSETS			LIABILITIES .		
CURRENT ASSETS Bank Cash: Total Accounts Receivable TOTAL CURRENT ASSETS	6.678.04	6,678.04 3,400.00 16,078.04	CURRENT LIABILITIES EI Payable CPP Payable Income Tax Payable Receiver General Payable TOTAL CURRENT LIABILITIES	52.20 36.00 112.95	201.15 201.15
FIXED ASSETS Building Computer Donation Boxes	3,604.55 600.00 541.00		TOTAL LIABILITIES		201.15
Banding Equipment Display Board	1,100.00		YTIUE3		
Refrigerator Solar Panels Total Fixed Assets TOTAL FIXED ASSETS	577.04 846.38	7,795.97 - 7,795.97	EQUITY Capital Current Earnings TOTAL EQUITY		12,016.05 11,656.61 23,672.86
TOTAL ASSETS		23,874.01	TOTAL EQUITY		23,672.86
			LIABILITIES AND EQUITY		23,874.01

SCIENTIFIC RESEARCH

The goal of this activity is to develop, promote implement and publish quality, field-orientated surveys and research on birds and other wildlife at Beaverhill Lake and elsewhere.

Overall Bird Banding Totals at the BBO in 1997

In 1997 consistent banding data was collected longer into the season than ever before. Nets were open early in the spring at the annual Snow Goose Festival on April 26th and 27th and banding continued from May 5th until October 30th. Despite this longer banding season the delayed spring, exceptionally wet summer and chilly fall prevented any record breaking banding efforts. The total number of banding days matched last years achievement of 109 and the total number of 6121.4 net hours was lower than the 1996 total of 7197 net hours. As expected the capture rates fell in summer as the wave of spring migrants dwindled, and were highest in the fall as the migrants and their young of the year moved back through our area.

Table 1: Seasonal Capture Rates at BBO in 1997

Season	Capture Rate (birds/100 net hours)
Spring	32
Summer	20
Fall	53

A total of 2692 birds were captured (Table 2) and 2339 new bird were banded (Table 3). The diversity of birds captured and banded this year was a spectacular record breaking 71 species with the highest diversity recorded in the fall.

Table 4: Avian Species Diversity Captured at BBO in 1997

Season	# Bird Species Captured
Spring	42
Summer	18
Fall	56

The top five species with the highest numbers captured were Myrtle Warblers (425), Yellow Warblers (402), Least Flycatchers (313), Clay-coloured Sparrows (209), and Black-capped Chickadees (201) together comprising 58% of the total birds caught in 1997. The majority of chickadees captured (64%) have already been banded since they are a resident species whose presence is enjoyed all year, unlike the brief seasonal visit of other residents such as Yellow Warblers or Least Flycatchers.

The most common species banded closely reflect the capture totals. The top five species banded were Myrtle Warblers (409), Yellow Warblers (327), Least Flycatchers (282), Clay-coloured Sparrows (187) and Tennessee Warblers (157) together comprising 58% of the total birds banded in 1997.

Table 2: Birds Captured at BBO in 1997

Species	Number	tured at BBO in 1997 Species	Number
1. Cooper's Hawk	1	37. Townsend's Warbler	3
2. Yellow-bellied Sapsucker	1	38. Magnolia Warbler	20
3. Hairy Woodpecker	3	39. Mourning Warbler	6
4. Downy Woodpecker	7	40. Black-and-White Warbler	4
5. Western Wood Pewee	3	41. Connecticut Warbler	3
6. Alder Flycatcher	46	42. Black-throated-green Warbler	1
7. Least Flycatcher	313	43. Northern Waterthrush	10
8. Yellow-bellied Flycatcher	2	44. Ovenbird	5
9. Northern Flicker	2	45. Chestnut-sided Warbler	1
10. Tree Swallow	107	46. Nashville Warbler	1
11. Barn Swallow	11	47. MacGillvray's Warbler	1
12. Black-capped Chickadee	201	48. Western Tanager	1
13. House Wren	71	49. Chipping Sparrow	41
14. Mountain Bluebird	1	50. Clay-colored Sparrow	209
15. Swainson's Thrush	34	51. Vesper Sparrow	1
16. Hermit Thrush	19	52. Savannah Sparrow	5
17. Gray-cheeked Thrush	1	53. Song Sparrow	5
18. Veery	1	54. Lincoln's Sparrow	19
19. American Robin	6	55. White-throated Sparrow	19
20. Gray Catbird	3	56. White-crowned Sparrow	7
21. Warbling Vireo	32	57. Swamp Sparrow	1
22. Red-eyed Vireo	23	58. American Tree Sparrow	26
23. Philadelphia Vireo	4	59. Dark-eyed Junco	31
24. Solitary Vireo	2	60. Red-winged Blackbird	3
25. Tennessee Warbler	166	61. Brown-headed Cowbird	39
26. Orange-crowned Warbler	123	62. Purple Finch	3
27. Yellow Warbler	402	63. Pine Siskin	3
28. Cape-may Warbler	6	64. American Goldfinch	15
29. Myrtle Warbler	425	65. Baltimore Oriole	10
30. Eastern Palm Warbler	11	66. Ruby-crowned Kinglet	21
31. Western Palm Warbler	7	67. Golden-crowned Kinglet	9
32. Blackpoll Warbler	30	68. Cedar Waxwing	3
33. Common Yellowthroat	8	69. Rose-breasted Grosbeak	9
34. Canada Warbler	4	70. Red-breasted Nuthatch	9
35. American Redstart	66	71. White-breasted Nuthatch	1
36. Wilson's Warbler	22	TOTAL	2692

Table 3: Birds Banded at BBO in 1997

Species	Number	Species	Number
1. Cooper's Hawk	1	37. Townsend's Warbler	3
2. Yellow-bellied Sapsucker	1	38. Magnolia Warbler	20
3. Hairy Woodpecker	3	39. Mourning Warbler	6
4. Downy Woodpecker	5	40. Black-and-White Warbler	4
5. Western Wood Pewee	3	41. Connecticut Warbler	3
6. Alder Flycatcher	46	42. Black-throated-green Warbler	1
7. Least Flycatcher	282	43. Northern Waterthrush	10
8. Yellow-bellied Flycatcher	2	44. Ovenbird	5
9. Northern Flicker	2	45. Chestnut-sided Warbler	1
10. Tree Swallow	106	46. Nashville Warbler	1
11. Barn Swallow	_10	47. MacGillvray's Warbler	1
12. Black-capped Chickadee	72	48. Western Tanager	1
13. House Wren	58	49. Chipping Sparrow	41
14. Mountain Bluebird	1	50. Clay-colored Sparrow	187
15. Swainson's Thrush	32	51. Vesper Sparrow	1
16. Hermit Thrush	16	52. Savannah Sparrow	3
17. Gray-cheeked Thrush	1	53. Song Sparrow	4
18. Veery	1	54. Lincoln's Sparrow	18
19. American Robin	6	55. White-throated Sparrow	19
20. Gray Catbird	3	56. White-crowned Sparrow	7
21. Warbling Vireo	28.	57. Swamp Sparrow	1
22. Red-eyed Vireo	22	58. American Tree Sparrow	25
23. Philadelphia Vireo	4	59. Dark-eyed Junco	26
24. Solitary Vireo	2	60. Red-winged Blackbird	2
25. Tennessee Warbler	157	61. Brown-headed Cowbird	23
26. Orange-crowned Warbler	111	62. Purple Finch	3
27. Yellow Warbler	327	63. Pine Siskin	3
28. Cape-may Warbler	5	64. American Goldfinch	15
29. Myrtle Warbler	409	65. Baltimore Oriole	8
30. Eastern Palm Warbler	-1	66. Ruby-crowned Kinglet	20
31. Western Palm Warbler	7	67. Golden-crowned Kinglet	8
32. Blackpoll Warbler	30	68. Cedar Waxwing	3
33. Common Yellowthroat	8	69. Rose-breasted Grosbeak	9
34. Canada Warbler	4	70. Red-breasted Nuthatch	9
35. American Redstart	66	71. White-breasted Nuthatch	1
36. Wilson's Warbler	22	TOTAL	2339

Some interesting captures in the spring included a Cooper's Hawk (in the mist nets!), Mountain Bluebird (usually spotted annually in the within the natural area), Western Tanager and an Eastern Palm Warbler. In the fall the diversity of warblers was wonderful and accented by a Nashville Warbler (new to BBO banding records), Chestnut-sided Warbler, MacGillvray's Warbler and a Black-throated-green Warbler. Also, the only Grey-cheeked Thrush, Swamp Sparrow and White-breasted Nuthatch caught this season was banded in the fall.

Banding effort in 1997 relied on a combination of staff and volunteer commitment. Veteran Elsabe Kloppers returned for her second banding season along with new recruits Karen Garvin, Kim Pearson, Jeff Sleno and Christine Rice. All staff members did an excellent job overseeing the BBO's many research projects, providing interpretation to visitors, and tending to the lab. A number of volunteers provided invaluable assistance during the 1997 season including Marke Ambard, Deena Arnold, Jim & Barb Beck, Josh Bilyk, Mark Bradley, Christie Dean, Jennifer Dober, Jason Duxbury, Jim Faragini, Al & Mike de Groot, Jay Gedir. Shannon Haszard, Nathalie Heit, Geoff Holroyd, Wayne Johnston, Rob Kaye, Lee Kearey. Janos Kovacs. Jim Nichol, Sandra Nydokus, Robbie McDonald, Christine McLachlan. Theresa Morcos, Rick Morse, Elson Olorenshaw, Dan Osness, Melanie Ostopowich, Mike den Otter, Mark Piorecki, Eloise Pulos, Brad Romaniuk, Petra Rowell, Ken Sanderson, Lisa Takats, Helen Trefrey, Mark Wendlendt, Sara Wittkowski, Dennis Verbeek, and Henry Visscher. Thank-you to all for your help.

Migration Monitoring

Migratory songbirds have suffered significant population declines since the 1960's (Dunn & Garrett 1997). Speculation over the causes of these declines includes diminishing breeding and overwintering habitats. Standardized long-term data collection is necessary to monitor changes over time and aid in future land management decisions.

Monitoring the migration movements of passerines through the Beaverhill Lake Natural Area has always been the primary purpose of the BBO. 1997 marked the fifth year of standardized data collection using formal protocol modeled after Long Point Bird Observatory (Duxbury 1994). Many of the songbird species banded at the BBO during migration are boreal breeders. For example, Magnolia and Blackpoll Warblers both breed in conifers of the boreal forest (Dunn & Garrett 1997). Many of the species caught at the BBO overwinter in Central and South America. Despite this common knowledge it is always exciting to have a band recovery which proves this habitat link, such as the two Least Flycatchers banded here and recovered in Guatemala in 1991 and 1996.

The 1997 spring migration was monitored on 29 days between April 26th and June 9th. A total of 625 birds were captured and 522 new birds were with a capture rate of 32 birds per 100 net hours. This is lower than the 1996 and 1995 rates of 34 and 37 birds per

100 net hours, respectively. The number of birds caught peaked around the third week of May with 65 captures and 52 new birds banded, then steadily declined.

Fall migration was monitored on 63 days between July 30th and October 30th. A total of 1820 birds were caught and 1601 of these were banded. The fall capture rate of 53 birds per 100 net hours was a slight decrease from the 1996 rate of 55 birds per 100 net hours, but still significantly higher than that documented in 1995 (40 birds/100NH). The greatest number of birds were captured during the end of August and beginning of September and peaked on September 11th with 195 captures and 153 birds banded. The vast majority of these were Myrtle Warblers (115 caught, 99 banded) and over ¼ of all the Myrtle Warblers banded during the entire fall season were done on this one day! Weekly capture rates quickly declined into September and remained very low in October. The benefit of extending the banding season to October 30th was not the quantities of birds' captures but the types. American Tree Sparrows, Dark-eyed Juncos and Goldencrowned Kinglets were common species during the end of the season.

Monitoring Avian Productivity and Survivorship (MAPS)

The Institute for Bird Populations (IBP) in Point Reyes, California coordinates the MAPS project. Banding data documenting the increase in population due to hatch year birds is used to measure productivity, while returns of birds banded in previous years are used to measure survivorship. Standardized protocol involves the use of a recommended 10 mist nets (minimum 6) used one day out of each ten day period for 12 periods (minimum 5) over the summer breeding season. 1997 was the ninth consecutive year the BBO contributed to the continent wide project.

The BBO conducts MAPS banding at three separate sites within the natural area boundaries (BLAB, PARK and WEIR Stations). Ten net lanes are established at each site with the goal of banding one day out of each ten day period for the minimum requirement of 5 periods. Unfortunately, the need to clear the net lanes of tree-fall from the May snowstorm and the very rainy summer prevented this accomplishment. Banding occurred for 6 days at BLAB Station, 3 days at PARK Station and 2 days at WEIR Station. During these 11 banding days a total of 106 birds of 15 species were banded.

Point counts to support the banding data are a voluntary component of the MAPS project. During the summer point counts were conducted for 4 days at BLAB Station, 5 days at PARK Station and 3 days at WEIR Station. This data along with the MAPS banding sheets, breeding status lists and habitat description for each of the three sites were submitted to the IBP.

Retraps

A retrap is a captured bird that has already been banded. This season the BBO had 353 recapture events of 26 different species. These retraps may be classified as repeats, returns or foreign encounters.

Table 5: Birds Retrapped at BBO in 1997

Species	Repeats	Returns & Foreign Encounters	Totals
1. Downy Woodpecker	2		2
2. Least Flycatcher	12	19	31
3. Tree Swallow		1	1
4. Barn Swallow		1	1
5. Black-capped Chickadee	123	6	129
6. House Wren	11	2	13
7. Swainson's Thrush	2		2
8. Hermit Thrush	3		3
9. Warbling Vireo	2	2	4
10. Red-eyed Vireo		1	11
11. Tennessee Warbler	9	-	9
12. Orange-crowned Warbler	12		12
13. Yellow Warbler	24	51	75
14. Cape-may Warbler		1	1
15. Myrtle Warbler	16		16
16. Clay-coloured Sparrow	20	2	22
17. Savannah Sparrow	1	1	2
18. Song Sparrow		1	11
19. Lincoln's Sparrow	_ 1		1
20. American Tree Sparrow	1		11
21. Dark-eyed Junco	4	1	5
22. Red-winged Blackbird	1		. 1
23. Brown-headed Cowbird	6	10	16
24. Baltimore Oriole	11	1	2
25. Ruby-crowned Kinglet	1		1
26. Golden-crowned Kinglet	1		1
	253	100	353

A repeat is a bird banded at the BBO and recaptured the same season. These comprised 72% of the retraps recorded in 1997. A return is a bird banded at the BBO and recaptured in a later season. This means it has successfully migrated to it's overwintering grounds and returned to Beaverhill at least once. These birds provide important data on site fidelity and ages of specific species. A foreign encounter is a captured bird which has been banded somewhere other than at the BBO, and not by BBO members banding at alternative sites. These are rare and exciting events.

Band recoveries provide indisputable and physical proof of migration routes. Birds originally banded at the BBO have been recovered as far away as Guatemala and as close by as the town of Tofield. Passerine band recoveries are not common events, but a Least Flycatcher banded by Karen Garvin in 1997 is a recent addition to a growing list.

Table 6: Recoveries and Foreign Encounters of Birds Banded with BBO Bands

Table 6: Recoveries and Foreign Encounters of Birds Banded with BBO Bands					
Banding	Bander	Age	Recovery	Recovery	Reported
Date	1	Sex	Location	Report Date	by
15-Jun-83	Rainer Ebel	AHY	Montery Bay	25-Маг-84	Linda Perez
		F	CA	1	
13-Jul-88	Petra(Stubbs)	AHY	Lougheed	24-Apr-89	Siobhan
15 0	, , ,		_		Butcher
29-Jun-88				29-Jul-89	Dave
					Carlson
03-101-89				28-Jun-90	Michell
05 341 05		4		20 3411 30	Walker
08-Sep-90				19-Jan-91	Dan
10 Dop >0	, and a sugar				Wallace
13-Aug-89	Jim Lange/P.			15-Anr-91	Daniel
		_		p	Weber
18-Aug-94				29-Aug-94	Richard
10 11-6 1		ָ ט			Peters
27-Jun-90	BBO	N/A		18-Jun-95	Jack Park
			AB		
19-Jul-93	Josh Bilyk	AHY	near	09-Oct-96	Hamilton
		U	Huehuetanago.		Whitman
			Guatemala		
07-Jun-97	Karen Garvin	AHY	Beaverhill Lake	21-May-98	Edgar T.
		F	AB		Jones
03-Jul-97	Jeff Sleno	HY	Beaverhill Lake	14-May-98	Darren Jury
		U	AB	•	
16-Nov-97	Christine	HY	near Fort Sask.	06-Jan-98	Trevor
	Rice	F	AB		Roper
16-Jun-97	Al de Groot	HY	Lat-Long:	04-Aug-98	Mark
	·	U	535-1130	Ĭ	Heckbert
25-Jun-97	Al de Groot	HY	Lat-Long:	19-Sep-98	Kari
	 	ับ _	535-1125	•	Grantmeyer
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Tree Swallow Nesting Box Project

Tree Swallow boxes were erected within the natural area years ago and have been the focus of graduate research. The boxes have continued to be maintained and monitored by BBO staff. In 1997, 103 young were banded at 40 nest boxes for an average of 2.58 young per successful nest. This is a notable decline from last year's average of 5.15 young per successful nest. A major contributor to this decline was the invasion of cattle into the natural area on June 24th. They grazed in the tree swallow grid and were responsible for knocking down at least 7 nest boxes and killing the eggs or young hatchlings inside. The boxes were re-erected and served to house a few second broods that successfully fledged.

Prairie Nest Record Scheme

The BBO staff contributes data to the federally organized Prairie Nest Record Scheme. Standardized nest cards are provided by the Canadian Wildlife Service (CWS), filled out and returned at the end of the season to be added to a national database. In 1997 a total of 55 nests of 5 different species were found and monitored. The vast majority of these were the "artificial" nest boxes monitored for the Tree Swallow Project.

Table 7: Number and Outcome of Nests Discovered at Beaverhill Lake in 1997

Species	# Nests Found	Successes	Failures	Unknown
Mountain Bluebird	1		1	
Black-billed Magpie	1			1
Mallard	1		1	
Tree Swallow	49	39	10	
House Wren	3	1		2

A nest was determined to be successful if the young were old enough at last visit to have fledged. Every egg and young did not necessarily have to hatch and fledge for it to be considered a successful brood. Nest failure was determined by physical evidence (i.e. dead young, depredated eggs) or by an empty nest that would have been too young to have fledged. Nest outcome was determined to be unknown if there was no indication of success or failure, or nest monitoring was not continued.

Raptor Monitoring Project

Takats. The purpose of this study is to collect standardized long-term ecological data on birds of prey in Alberta. Due to the high position of raptors in the food chain this data can be used to infer environmental health (Oliphant 1994) and is important to consider when making environmental management decisions. This province wide project includes a volunteer based owl monitoring program in the Foothills Model Forest, collecting morphological and location data on dead raptors turned into Alberta Environmental Protection (Natural Resources Division), working with raptor banders and the public to collect standardized information on cavity and stick nesting raptors, and entering historical information on raptor distributions in to a provincial database. The BBO's component of this project involved collecting information on migrating and nesting raptors at Beaverhill Lake via sighting and banding records.

Raptors observed within Beaverhill Lake Natural Area by BBO staff were documented from May through October, (Appendix I).

Table 8: Number of Raptors Observed at Beaverhill Lake, August through October, 1997

Species	Total
Bald Eagle	22
Northern Harrier	189
Sharp-shinned Hawk	9
Cooper's Hawk	4
Northern Goshawk	8
Swainson's Hawk	24
Red-tailed Hawk	54
Broad-winged Hawk	3
Rough-legged Hawk	7
American Kestrel	2
Merlin	5
Peregrine Falcon	3
Gyrfalcon	11
Osprey	1
Great Horned Owl	25
Short-eared Owl	57
Northern Saw-whet Owl	2

Raptors observed outside of the natural area boundaries were recorded separately. Beginning in August a variety of techniques were used to trap and band migrating raptors: drop-lid traps, drop-door traps, Bal Chatri traps and mist nets with a decoy and/or recorded calls. With the seasonal closing of the BBO field station in November Lisa Takats and Christine Rice would occasionally patrol the outskirts of Edmonton with a Bal-Chatri and hand net to trap and band some of the later migrants. A total of 5 species and 7 individual raptors were banded during this pilot year.

Table 9: Species of Raptors Banded at BBO in 1997

Species	Date	Age*	Sex	Trap
Cooper's Hawk	May 09	ASY	M	Mist net
Cooper's Hawk	Aug 24	HY	M	Drop lid
Northern Goshawk	Aug 26	HY	F	Drop lid
Broad-winged Hawk	Sep 06	HY	U	Drop lid
Red-tailed Hawk	Sep 17	HY	U	Drop lid
Sharp-shinned Hawk	Oct 12	HY	M	Drop lid
Great Gray Owl**	Nov 16	HY	F	Hand net

^{*} ASY = after second year, HY = hatch-year

Amphibian Monitoring

RANA (Researching Amphibian Numbers in Alberta) is a province wide effort organized by the Alberta Conservation Association (ACA) and Alberta Environmental

^{**} Caught north of Fort Saskatchewan

Protection (AEP) 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 utilizing drift fences and pitfall traps. In 1997 the Beaverhill Lake Natural Area was selected as a RANA monitoring site to represent the aspen-parkland eco-region of Alberta. Lisa Takats, Melanie Ostapowich, Christie Dean, Elsabe Kloppers, Jeff Sleno and Karen Garvin installed nine trapping arrays along the west shore of Lister Lake. BBO staff was unable to run the RANA traps during 1997 due to other commitments, however, data was collected on 21 tiger salamanders (Ambystoma tigrinum) captured by hand. Now that the trapping arrays are in place it is intended that the 1998 BBO staff collect standardized RANA data.

BBO staff documented casual encounters with amphibians. This data was recorded on Alberta Amphibian Monitoring Program data sheets and entered into a provincial database.

Table 10: Amphibians recorded by BBO staff in 1997

Species	# Observed	# Heard
Boreal Chorus Frog	19	23
Wood Frog	15	18

Beaverhill Landscape Biodiversity Initiative

Josh Bilyk conducted morning bird surveys along the shore and surrounding habitat of Beaverhill Lake during the spring and fall of 1997. Habitat preferences and concentrations of certain species were documented. The species composition and relative abundance of avian populations at Beaverhill documented by these surveys was found to strongly correlate with BBO banding data.

. This project was made possible with the support of Ducks Unlimited, the North American Waterfowl Management Plan Biodiversity Fund, Environment Canada, and the Science Horizons Youth Internship Program

Sight Records

Roy Fairweather once again compiled sight records for the Beaverhill Lake area. Please refer to the Appendix II for the "1997 Beaverhill Lake Sight Records Report".

PUBLIC EDUCATION

The goal of this activity is to educate and promote community interest in the value of birds and the natural world through organization and participation in seminars and outdoor activities related to wildlife at Beaverhill Lake and elsewhere.

Interpretation Tours and Events

Visits to the BBO lab, whether they are organized tours or informal drop-ins, are always welcome. 1997 saw visitors originating from places as far away as Fort Smith (NWT), Virginia (USA), Bristol (UK), South Africa and Japan. First hand experiences are very memorable and keen visitors provide the BBO staff with the opportunity to raise public awareness of our activities and of conservation in general.

The annual Snow Goose Festival marked the beginning of the 1997 season on April 26th and 27th. Thousands of geese and hundreds of people visited Beaverhill Lake Natural Area. Jason Duxbury, Sandra Nydokus, Geoff Holroyd and Elsabe Kloppers greeted hikers at the BBO lab with hot drinks, cookies, banding information and demonstrations (with the aid of two Black-capped Chickadees!).

June 8th marked the Annual BBO Breakfast starring Chef Janos Kovacs and his Amazing Crepes. Aside from the wonderful camaraderie (20+ people), birds (17 caught) and food, this annual gathering provides an important opportunity for BBO executive and staff to meet.

A number of guided tours through the natural area stopped by the BBO lab to learn first hand about migration monitoring with banding demonstrations. On May 24th Michael Barr from Ducks Unlimited brought a group of 11 people by after birdwatching at the weir. A group of enthusiastic Edmonton Natural History Club (ENHC) birders led by Lisa Takats visited on September 27th during their hike celebrating fall migration. On October 17th cold drizzly weather did not deter the King's College Ecology Trip group. Kids groups with their unending energy and inquiries are always welcome at the BBO. The Strathcona Recreation Center brought out about 30 "Nuts for Nature" kids on July 25th, and the Tofield Nature Center brought about 10 kids out on August 8th.

Public exposure to the BBO's activities was significantly increased this season with the visit of two separate television crews. On July 11th Jason Duxbury demonstrated songbird mist-netting and banding for a film crew from Videotron. On September 21th a Life Channel film crew for the pilot show "The Bird Guy" spent the day at the observatory. Along with songbird banding demonstrations and information about migration monitoring filming also featured the raptor monitoring project and the natural beauty of Beaverhill Lake.

Banding staff made the extra effort to increase their knowledge of and involvement in current ornithological events. BBO summer staff attended a Raptor

Banding Workshop held in Edmonton on August 2nd, and after the conference were able to help with banding Osprey fledglings at Wabamun Lake. BBO fall staff joined the ENHC's Fall Raptor Migration Trip led by Dr. Gordon Court on October 25th. A total of 9 raptor species were identified during the trip including wild raptors spotted in the Beaverhill-Cooking Lake area, captive raptors at local falconers the Trefrey's farm, and a Rough-legged Hawk captured on a Bal-Chatri trap and banded by Ray Cromie.

Baillie Bird-a-thon

This national phenomenon is organized by Bird Studies Canada and raises money for bird research and conservation across the country. Sponsored participants have 24 hours within the month of May to compile the longest list of bird species that is humanly possible! Designating the BBO as the bird club of choice results in most of the money raised being donated to the observatory to aid with operation costs.

Adventures of the BBO's 1997 Baillie Bird-a-thon Team

Hours of planning and now its over. It seems to have come and gone so quickly. Another Baillie Bird-a-thon has been completed in Alberta, but what an experience! Last year's count of 118 species seemed to have been a warm up for what Lisa Takats, Josh Bilyk and I achieved this year. Not contented with just travelling around the Edmonton area, we decided to go all out and visit some other regions of Alberta as well. We were told that what we had planned was not possible, however with a little work and even less sleep we pulled it off!

Our mode of transportation was Lisa's trusty '88 GMC 4 x 4 pick-up truck, with cruise control and air-conditioning (I know, I know, life is rough). We met at 9:15 and after packing up bikes, tents, backpacks, and bug dope, we were off to Lac La Biche by 10:10.

It all began in Sir Winston Churchill Provincial Park just outside of Lac La Biche. After getting a feel for what birds were in the area, we synchronized our watches at 1:32 PM and set off down the Boardwalk Trail on our mountain bikes. Peddling up and down the hills along the trail we listened to the songs of the wood warblers such as Blackthroated Green Warblers, American Redstarts, Black and White Warblers, Cape May Warblers, Tennessee Warblers and Orange-crowned Warblers. These songs were occasionally interrupted by the sporadic songs of Red-eyed and Solitary Vireos, and the Morse code drumming of the Yellow-bellied Sapsucker. It was also at this site where we managed to pick up a Winter Wren, Lisa' favorite and a "lifer" for Josh, whose beautiful drawn out, tinkling melody echoed throughout the old forest. Such a strong song for such a tiny bird! The paths of the park occasionally reach the shore of Lac La Biche, and it was at these vantage points where, through clouds of mosquitoes and midges, we were able to find American White Pelicans, Double-crested Cormorants, Red-necked Grebes and White-winged Scoters. Watching pairs of Western Grebes intertwine necks and dance on the water during courtship displays was a real treat. As we packed up the bikes at the end of the trail we managed to tick off an Ovenbird. Grabbing a cool drink in Lac

La Biche and checking off House Sparrow at the same time, we started off down the highway. As we drove out of town we pondered, "Where were the Western Tanagers?" Next site we supposed.

At around 5:00 PM we pulled up to the park gates of Elk Island National Park. Astotin Lake was sure to provide us with some new species. It was in the small ponds along the roadsides that provided lasts year's count with Ring-necked Ducks, and they did not disappoint us this year. We also managed to get a great look at a "Black-night Crowned Heron" or more commonly known as a Black-crowned Night Heron (and we were not even tired yet!) There had been reports that Barrow's Goldeneye has been seen in the area, and sure enough the larger of the two Goldeneyes was floating around with some of its smaller cousins Common Goldeneyes. Also making their first appearances for listing were Spotted Sandpipers and Common Yellowthroats. The boreal forest of the park was sure to contain Western Tanagers, but alas, still no sign.

During the short drive from Elk Island through the back roads surrounding Beaverhill Lake, we heard the first cries of Marbled Godwits (a "lifer" for Lisa) and the crystal clear song of the Western Meadowlark at 7:31 PM. This is a tremendous year for Short-eared Owls in Alberta, and we were quick to add one to our list. Driving near the west shore of Beaverhill Lake, we were witnesses to a Short-eared Owl give chase to a Red-tailed Hawk. Like the hawk, we too were probably close to the nesting site of the owl. Other birds in the field were Black-bellied Plovers, Savannah and Vesper Sparrows, Eastern Kingbirds and Killdeers. And as we watched birds, a curious badger watched us. Too bad we were not counting mammal species as well!

After picking up a single Bobolink at "Bobolink Corner", we soon found ourselves at the gate to the Beaverhill Lake Natural Area, but we were running out of daylight! On our bikes again, and we rode off in search of a few more species before dark. Yellow-headed Blackbirds and Marsh Wrens singing on Lister Lake were the first birds to greet us to the natural area. Our route along the marsh took us within yards of two American Bitterns as they glugged out their pumping noises seemingly right beside us. The mad dash to the natural area's weir was disappointedly unproductive, but we did manage to find some Wilson's Phalaropes. Lisa was quick to remind us how it is the male of the species that stays home and incubates the eggs! With the sun gone for the day, we made tracks to the Beaverhill Bird Observatory for a rest. Sitting on the veranda watching Barney the Barn Swallow roost, the night air was filled with the tinkling sound of the Hermit Thrush; species number 101. Still no tanagers.

Call it a day? Never! After a brief rest, we were on our bikes again heading back to the truck. The sneaky Sharp-tailed Sparrows who were not singing on the way in, let us know they were available for counting on the way out. En route away from the natural area we made one stop where Long-eared Owls have been reported as possibly nesting. With a little patience, we were able to confirm both a male and female of the species, another great find for the team!

Hunger pangs led us to find pizza in Camrose. Camrose was chosen for a good reason. As we approached the lake in the town and as I had just said, "Watch for a Trumpeter Swan", Josh immediately picked one out on the lake, faintly lit by the streetlights of the neighbourhood. Now we could eat!

By the time we left Camrose full of pizza, it was 1:00 in the morning, dark and a good time to get to southern Alberta. Our route took us through Stettler and near Hanna. By 3:30, the sun was making its presence known once again, letting us know that soon we would be out picking up species once again.

At our first few stops, in the dim light of the early morning with the songs of Horned Larks and Sprague's Pipit hanging above our heads, we came across the endangered Burrowing Owl and group of Sharp-tailed Grouse on what might have been a possible dancing ground (lek). Not a bad way to start a day! With increasing kilometres on our odometer and light to the day, our drive took us on a secondary highway heading towards Dinosaur Provincial Park. Along the way we added Swainson's Hawk, Ferruginous Hawk, Baird's Sparrow, McCown's and Chestnut-collared Longspurs, Mourning Dove and Ring-necked Pheasant. While combing the thorny buffalo-berry for Loggerhead Shrikes (which we never did find), we did manage to scare up some Brown Thrashers and a Great Blue Heron. Unfortunately, the clock never stands still so we pressed on to the provincial park.

We were relying on the park for 4 species: Rock Wren, Say's Phoebe, Violet-green Swallow and Lark Sparrow. Standing at the look-out point above the badlands of the park we were surprised to get everyone of those species within a ten minute time period! And, singing in the only aspen tree in the whole valley, we were delighted to finally pick up a seemingly lost Western Tanager! This fortunate luck gave us back some precious time lost along the way, and so, at 6:30 in the morning we started off for Waterton Lakes National Park.

The drive to the national park took us near southern Alberta prairie lakes, ponds and sloughs. Species found in this area were the large Caspian Tern, the elegant American Avocet, a calling Willet and the small black-headed Bonaparte's Gull. We arrived at the park gate at 10:48 in the morning. Our first stop was productive as we added Red-naped Sapsucker, Mourning Warbler, and Northern Waterthrush to the list. Sitting in the sun on a power pole near the park kiosk, were both a Bald Eagle and an Osprey. Just whom the nest actually belonged to was unclear, as they did not seem to mind each other's presence. Up to the still frozen Cameron Lake we drove to find some jays. However, there was not a single Gray Jay or Steller's Jay to be found. Although, having the mountain air filled with the songs of the Varied Thrush (a "lifer" for me), Wilson's Warbler and Fox Sparrow more than made up for the lack of jays.

With the clock ticking off it's final few minutes, we rushed back to Pearl's Restaurant in the town site to watch a hummingbird feeder. As we approached the restaurant, a Vaux's Swift, a species reported to be nesting in the chimneys of the grand old Prince of Whales Hotel, flew with some swallows allowing for a nice comparison of

wing shapes. Our last hope for a few more species was fulfilled with Black-chinned, Rufous and Calliope Hummingbirds.

At 1:32 PM, 24 hours and 1120 km later we crashed at Pearl's Restaurant. Our grand total for the trip was 151 birds! The carefully planned trip added 33 species to last year's total of 118 species. Was it worth it? Seeing Alberta's boreal forest, parkland, prairies, uplands, wetlands, small towns, and mountains all in one day is an adventure that all three of us will never forget!

-Jason Duxbury

PUBLICATIONS

The purpose of this activity is to develop an awareness and community interest in birds and natural history through publication.

"The Willet"

"The Willet" newsletter continued to inform and entertain BBO members in 1997. Lisa Takats was responsible for writing articles, soliciting article submissions, as well as printing and organizing mail-out gatherings.

Migratory and Breeding Bird Habitat Associations Of The Beaverhill Lake Landscape - Joshawa N. Bilyk, Michael Barr, and Geoffrey L. Holroyd

Abstract

In 1997, a study was undertaken in the Beaverhill Lake area (70 km east of the City of Edmonton, Alberta) to inventory all bird species which occurred during that year. This information, together with historical information on bird species occurrence, will be used to develop a comprehensive conservation plan to guide habitat protection and management activities in this area.

A total of 146 bird species were recorded within eight wetland and eleven upland habitat types. During the summer, large saline wetlands and riparian habitats demonstrated the highest avian diversity (46 species each) followed by medium seasonal and large semi-permanent wetlands (38 and 36 species respectively). The lowest diversity was found in delayed haylands (9 species). During the migration seasons, large saline wetlands were again the most diverse habitat type (65 species) followed closely by grazed deciduous uplands (57 species). The lowest bird diversity was observed in idle shrub habitats during migration season (15 species).

An analysis of species of special status (as a subset of the total number of species observed) versus habitat type revealed 30 special status species. Special status species were defined as those red, blue or yellow listed according to the Status of Alberta Wildlife ranking system. Large saline wetlands recorded the highest number of species of special status for both the summer (8 species) and migration seasons (18 species). During the summer, continuously grazed grassland, idle native grassland and large semi-permanent wetlands hosted the next highest number of special status species (6 species each). Grazed and idled deciduous upland

contained the fewest special status species in summer (1 specie each). Large saline wetland habitat is the most outstanding habitat type in this landscape; it supports the greatest number of total species and greatest number of special status species during both the migration and summer residency periods.

Of historical records including some 283 species, 57 species classify as special status according to the criteria established in this study. Only one species, the Piping Plover, is a red or blue listed species and confirmed summer resident (and breeder). It is strongly associated with large saline wetland habitat.

Recommendations are provided to address the needs of species of special status through identifying key habitat types and specific locations within the Beaverhill Lake landscape.

INTERORGANIZATIONAL COOPERATION

The goal of this activity is to communicate and promote participation of volunteers and organizations of a similar nature in cooperative bird projects at Beaverhill Lake and elsewhere.

First Annual Beaverhill Bird Banding Workshop

The first banding workshop hosted by the BBO during the last weekend in February 1997 was a huge success. Geoff Holroyd's initial idea of a small gathering for western Canadian bird observatories to share their recent data quickly evolved into a full-fledged conference. Participants represented such prestigious research organizations as Birds Studies Canada, Long Point Bird Observatory, Canadian Wildlife Services, the University of Saskatoon, as well as Last Mountain Lake Bird Observatory and the Calgary Bird Banding Society. Charles Francis (Senior Scientist from Bird Studies Canada) was the special guest speaker and discussed techniques for analyzing migration monitoring data, the current status of the Canadian Migration Monitoring Network, and future initiatives of Bird Studies Canada. Although the workshop focuses on passerine banding issues talks were also given on raptor and waterfowl banding techniques and data. The genuine interest in migration monitoring techniques shown by the attendees, and the quality and variety of talks given by the presenters provides encouragement for future workshops

The Commission on Environmental Cooperation

Financial support provided by the CEC allowed BBO banding data to be analyzed. Jan Radziszewski was hired to enter all of our banding data up to 1996 into a database and analyze sex ratios, recaptures, and repeats. We are grateful to the CEC for making it possible to have our data computerized.

5th Annual Prairie Conservation and Endangered Species Conference

Lisa Takats represented the BBO at this conference held in Saskatoon Saskatchewan from February 19-22, 1997. The objectives of the Alberta Raptor Monitoring Program and data collected at Beaverhill Lake over the 1997 field season were presented.



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APPENDIXES

	1997 B	BO RAI	TOR S	IGHTIN	GS				<u> </u>				1				
	BAEA	NOHÀ	SSHA	СОНА	NOGO	SWHA	RTHA	BWHA	RLHA	AMKE	MERL	OSPR	PEFA	GYRF	GHÖW	SEOW	NSWO
MĀŸ		49(33)	1 (1)	2 (1)		1 (2)	55(18)				4 (1)		3 (7)		6 (4)	7 (19)	
JUNE		29(20)				1 (1)	14(12)			1 (1)	Ö (1)				0 (2)	2 (6)	
JULY		51 (6)	1			8 (4)	24 (4)		· ·				1			6 (6)	
AUG.		52 (9)	5	<u>-</u>	2	3 (11)	21 (9)		1		ž		2		6 (1)	6 (27)	
SEPT.	4	56(17)	3	2	3	2 (6)	10 (9)	3	0 (1)		3		1		11 (2)	3 (11)	i (1)
ост.	8 (10)	42(13)			3	0 (2)	2 (3)		2 (4)			0 (1)		i	4 (1)	8 (2)	
Total	12(10)	279(98	10 (1)	6 (1)	8	15(26)	126(55	3	2 (5)	1 (1)	9 (2)	0 (1)	7_(7)	1	27(10)	32(71)	1 (1)
		Accip	Hawk	Falcon		e evelle gar - / a qu'								. 			
MAY		2 (1)	1 (1)	1													
JUNE		1	· ··· ···														
JULY		2	0 (2)				terapean en		-								
AUG	-	err ra				 											
SEPT		5	*	1					,-								
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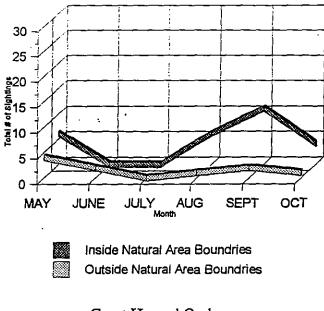
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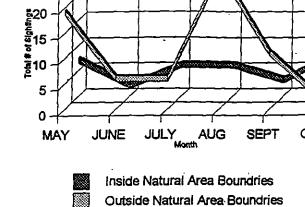
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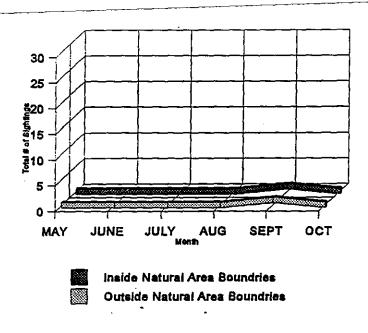


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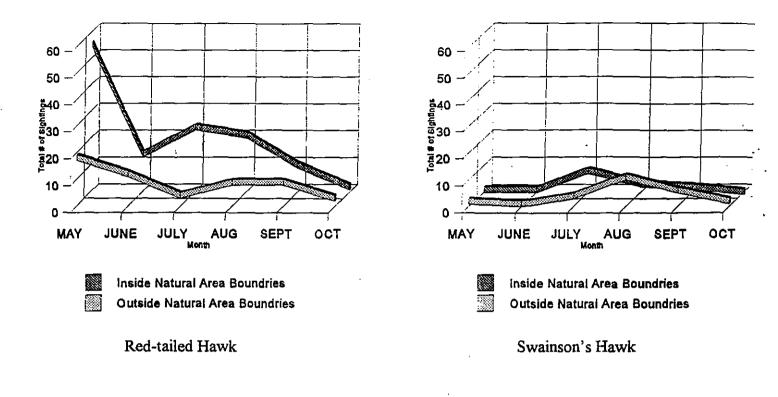
Great Horned Owl

Short-eared Owl



Northern Saw-whet Owl

Figure: Monthly Totals of Owl Sightings at the BBO



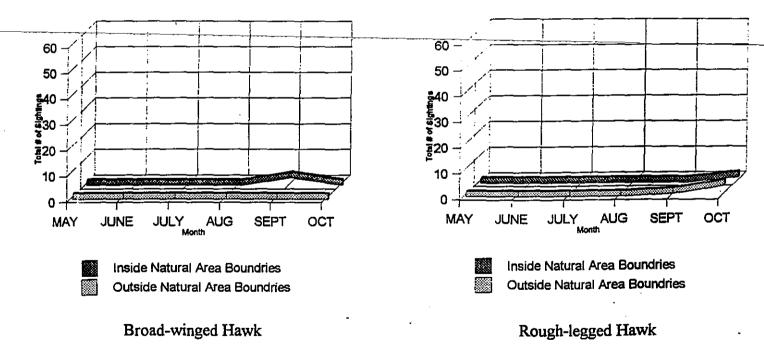


Figure: Monthly Totals of Buteo Sightings at the BBO

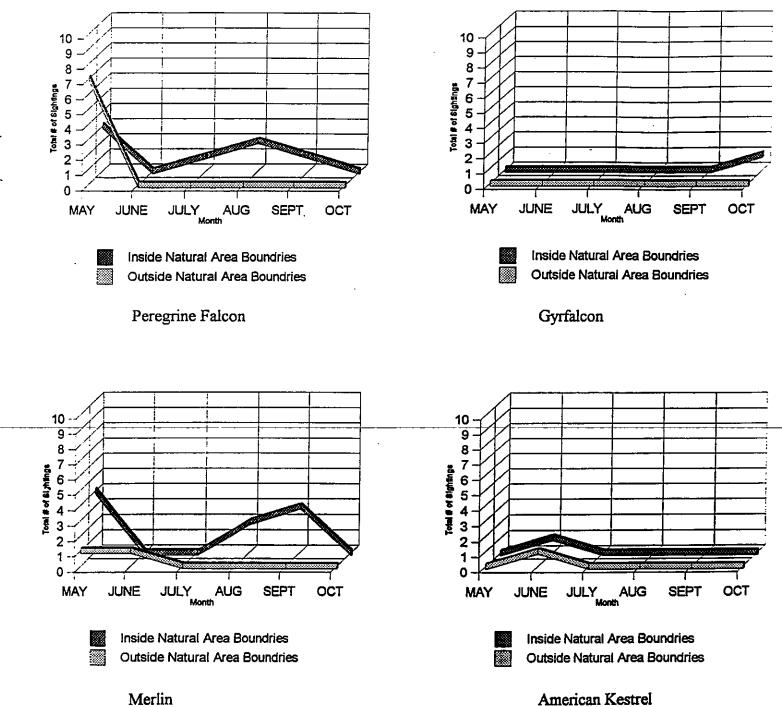
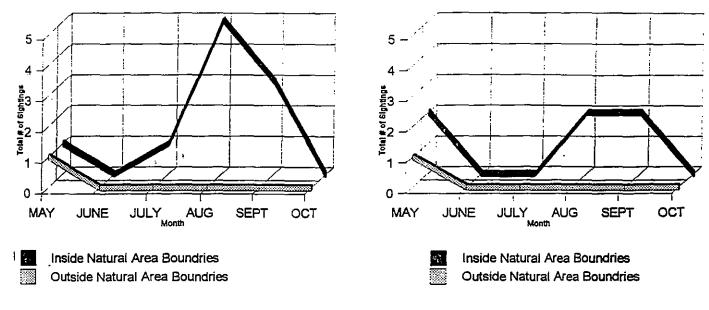
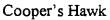
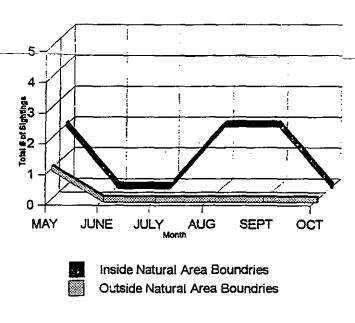


Figure: Monthly Totals of Falcon Sightings at th BBO



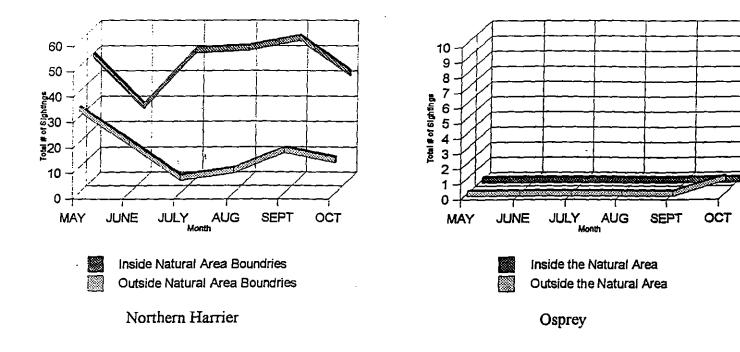
Sharp-shinned Hawk





Northern Goshawk

Figure: Monthly Totals of Accipiter Sightings at the BBO



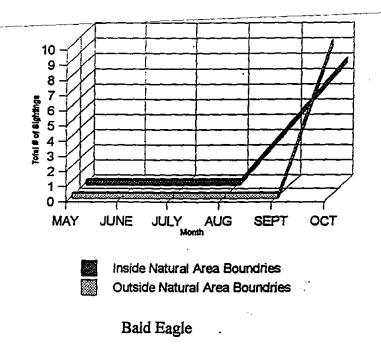


Figure: Monthly Totals of Harrier, Osprey and Eagle Sightings at th BBO

1997 Beaverhill Lake	e Signi necc	ing Lebo	 	openiled for	the Beaverhill Bird Observatory by Roy Fairweath
	-1-1-4007	 	:	compiled for	the Beaverniii Bird Coservatory by Hoy Fairweath
Species Recorded at Beaverhill L	ake in 1997:	ļ <u>.</u>	-		
210 species recorded in 1997 Species	First Record	Last Spring	First Fall	Last Record	Status
. 	First Record	Last Spring	ritst Fall	Last Necolu	Jidius
Loons	*****			*****	Transient
Common Loon	*SGF	*****	*****		nausiem
Grebes Pied-billed Grebe	*****	*****	Co-4 17 (DE)	Cont 00 (8B)	Prooding
Horned Grebe		!	Sept 17 (RF)	Sept 20 (BP) June 29 (BP)	Breeding Breeding
	April 19 (FW)	-	 		
Red-necked Grebe	April 25 (RF)		-	Aug 27 (BBO)	Breeding
Eared Grebe	April 19 (BP/FW)		 	Sept 10 (BBO)	Breeding
Western Grebe	SGF	_	-	Oct 19 (BP)	Breeding
Pelicans and Cormorants			 	C	Deceling felted and the
American White Pelican	SGF	_		Sept 17 (RF)	Breeding - falled nesting 1993 and since
Double-crested Cormorant	SGF	_		Sept 17 (RF)	Breeding - falled nesting 1993 and since
Herons	14 (0 (550)		 	0	D. J.
American Bittern	May 10 (BBO)		====	Sept 14 (RF)	Breeding
Great Blue Heron	April 13 (BP)	_		Oct 18 (DD) Oct 4 (DD)	Transient
Black-crowned Night-Heron	June 28 (BP)		 	OG(4 (DD)	Breeding
Swans Tundra Swan	April 40 (534)	May 5 (DE)	Sent 7 (000)	Oct 07 (PD)	Transient Chrine & Fall & Structure
Trumpeter Swan	April 19 (FW)	May 5 (RF)	Sept 7 (BBO) Sept 6 (BBO)	Oct 18 (DD)	Transient - Spring & Fall Migrants Transient
Wood Ducks	SGP	*****	Sept 6 (BBO)	Oct 18 (DD)	: iransient
	* (O (A) 41 B	leetabeeeee	1/- 0 1000 (DE) May 00, 4005 /	DD) has 0 1000 (MD)
•Wood Duck	*June 2 (NAH)	with young; Pr. H	ecmay 3, 1980 (HE); May 29, 1985 (DD); June 9, 1996 (MP)
Geese	1-305 (05)	M 40 (DDC)	10 (000)	0+400 (DD)	Transitation Office of Fall Affice As
Greater White-fronted Goose	April 25 (RF)	May 13 (BBO)	Aug 18 (BBO)	Oct 26 (DD)	Transient - Spring & Fall Migrants
Snow Goose	April 19 (FW)	May 10 BBO)	Aug 14 (BBO)	Oct 29 (BBO)	Transient - S & F Migr. (1 bird-June 1 BP)
(Snow Goose - blue Goose)	April 19 (FW) SGF	*****	Oct 4 (DD)	Oct 26 (DD)	Transient - Spring & Fall Migrants
Ross's Goose Canada Goose	March 31 (FW)		Sept 19 (DD)	Sept 28 (BBO) Nov 6 (RF)	Transient - Spring & Fall Migrants Breeding
	Maich ST (FVV)	_		ואטע פ (הד)	Dieeding
Dabbling Ducks Gadwall	April 25 (RF)		<u> </u>	Oct 15 (BBO)	Breeding
		St. Bas (0 = 4.00	1000 (510) 14:00		
•Eurasian Wigeon	*SGF		1990 (HK); May 8,		(RD) - 29 (BBO), 1995
American Wigeon	SGF		 	Oct 12 (BBO)	Breeding
Mallard	March 31 (FW)	_		Nov 6 (RF)	Breeding Breeding
Blue-winged Teal Cinnamon Teal	SGF SGF	May 5 (RF)	*****	Sept 25 (BBO)	Breeding
Northern Shoveler	April 25 (RF)		 	Nov 6 (RF)	Breeding
Northern Pintail	March 31 (FW)	_		Sept 27 (BBO)	Breeding
Green-winged Teal	SGF			Oct 18 (BBO)	Breeding
Diving Ducks (Pochards)				OCT 18 (DDO)	Litebrang
Canvasback	SGF			Sept 19 (BBO)	Breeding
Redhead	April 25 (RF)	===		July 11 (BBO)	Breeding
Ring-necked Duck	April 25 (RF)	SGF	*****	Oct 18 (BBO)	Breeding
Lesser Scaup	April 25 (RF)	<u> </u>		Nov 6 (RF)	Breeding
Sea Ducks				100 0 (1.1.)	
White-winged Scoter	*SGF	****	****	*****	Only record in 1997 - unconfirmed
Bufflehead	April 25 (RF)	June 8 (B5O)	40000	Sept 14 (RF)	Breeding
Common Goldeneye	April 25 (RF)	May 6 (BBO)	Sept 11 (BBO)	Sept 19 (BBO)	Transient (Breeding?)
Morgansers					
Common Merganser	*May 24 (BBO)	****	*****	*****	Transient - Spring & Fall Migrants
Red-breasted Merganser	SGF	****	00000	*****	Only record in 1997 - unconfirmed
Stiff-tailed Ducks	 				
Ruddy Duck	April 19 (FW)	May 16 (BBO)	****	Sept 14 (RF)	Breeding
Osprey, Bald Eagle and Harriers	T. T				
•Osprey	April 26 (BP): Pr. Re	c.:May 13, 1984	DD): May 21 1991	3(DD); May 13 & 24,	1994 (?)
Bald Eagle	April 19 (FW)	May 24 (BBO)			Transient - Spring & Fall Migrants
Northern Harrier	SGF	<		Oct 29 (BBO)	Breeding
	1				
SOE Cook Cook Fortivol Link	April 26 8 27				<u> </u>
SGF - Snow Goose Festival List -	Αμιίι 20 α 27				
Pr.Rec.: - Previous Records	<u>i</u>				<u> </u>
	1	1			1
-rarely recorded species					
		i			

					<u>:</u>
Species	First Record	Last Spring	First Fall	Last Record	Status
Accipiters			1	1	
Sharp-shinned Hawk	SGF	May 10 (BBO)	July 26 (BBO)	Oct 12 (BBO)	Breeding
Cooper's Hawk	SGF	May 16 (BBO)	Aug 24 (BBO)	Sept 21 (BBO)	Breeding
Northern Goshawk	SGF	Aug 26 (BBO)	Sept 10 (BBO)	Oct 19 (BBO)	Winter Transient
(accipiter species)	****	May 25 (BBO)	July 9 (BBO)	Sept 26 (BBO)	
Buteos			1	<u> </u>	
•Broad-winged Hawk	May14 (BBO)	*****	Aug 23 (BBO)	Sept 6-14 (BBO)	Transient (Breeding?)
Swainson's Hawk	SGF	T <	Inda so (DEO)	Sept 28 (BBO)	Breeding
Red-tailed Hawk	April 25 (RF)			Oct 14 (BBO)	Breeding
Rough-legged Hawk	April 13 (BP)	SGF	Oct 1 (DD)	Nov 6 (RF)	Transient - Spring & Fall Migrants
Falcons			T OUT (DD)	100001111	Transient - Oping & Fait Migratus
American Kestrel	April 19 (BP)	June 6 (BBO)	Aver 5 (PPO)	Comt O7 (DD)	Transient
 			Aug 5 (BBO)	Sept 27 (BP)	Transient
•Gyrfalcon	Oct 12 (BBO)	Pr.Rec.: Nov 16,		D-10 (DDO)	
Merlin	April 25 (RF)	↓ ≪	├ ───≥	Sept 9 (BBO)	Breeding
Peregrine Falcon	: April 13 (BP)	↓	├───≥	Sept 26 (BBO)	Transient
Grouse			·		<u> </u>
Gray Partridge	-≪ SGF	↓ ≲≥	Sept 27 (BP)	Oct 27 (BP) ->	Year round resident; Breeding
Ring-necked Pheasant	*May 24 (JN)	(JB)	****	*****	Occasionally raised and released in area
Ruffed Grouse	SGF	<u> </u>		Nov 6 (RF) ->	Year round resident; Breeding
Sharp-tailed Grouse	*May 23 (MB)	*****	40420	00000	Historically bred in area
Wild Turkey	March 31(FW)	*****	*****	Sept 17 (RF)	Sept 28, 1996 (BBO)-locally released bird
Rails and Coots		Ţ			
Yellow Rail	*June 7 (BBO)	*****	****	*Aug 25 (BBO)	Breeding
Sora	May 5 (BBO)	-		Aug 31 (BP)	Breeding
			Ţ==== <u>=</u>		-
American Coot	SGF	<u> </u>		Sept 23 (BBO)	Breeding
Cranes	 -	<u> </u>	 	<u></u>	
Sandhill Crane	SGF	May 20 (BBO)	Aug 31 (BP)	Oct 20 (BBO)	Transient - 1 bird on Aug 16 (BBO)-S&F
Plovers			<u> </u>	<u> </u>	<u> </u>
Black-bellied Plover	May 24 (MB)	June 1 (BP)	Sept 14 (RF)	Oct 12 (BBO)	Transient - 1 bird on Aug 4 (BP)-S&F M
American Golden-Ployer	*May 15 (RF)	*****	40040	****	Transient - Spring & Fall Migrants
Semipalmated Plover	****	*June 19 (BBO)	Aug 11 (BP)	Aug 25 (BBO)	Transient - Spring & Fall Migrants
Killdeer	. SGF			Aug 31 (BP)	Breeding
Avocets			ļ ————		
American Avocet	SGF	_		Aug 29 (BBO)	Breeding
Sandpipers				<u> </u>	
Greater Yellowlegs	April 25 (RF)	June 29 (BP)	Aug 4 (BP)	Oct 22 (BBO)	Transient
Lesser Yellowlegs	April 25 (RF)	June 29 (BP)	Aug 4 (BP)	Oct 22 (BBO)	Transient
(yellowlegs sp.)	74511 20 (111)	0010 23 (01-)	71294 (017)	Nov 2 (DD)	TIGLINIK
Solitary Sandpiper	May 9 (BBO)	May 24 (BBO)	July 9 (BBO)		Transient
Willet			JUNY & (DDC)	Aug 31 (BBO)	Breeding
	May 5 (RF)	_		Aug 23 (BBO)	
Spotted Sandpiper	SGF	Di Dia Livana	4004 (2)	Aug 25 (BBO)	Breeding
Upland Sandpiper	*(JB)); Aug 28, 1995 (BC	
•Whimbrel		Pr.Rec.: May 13 to			T
Hudsonian Godwit	*May 25 (RF)	****	****	*****	Transient - Spring & Fall Migrants
Marbled Godwit	SGF	_<		Sept 27 (BP)	Breeding
Ruddy Turnstone	*May 28 (RF)	*****	****	. ****	Transient - Spring Migrants
Red Knot	May 28 (RF)	*****	****	****	Transient - Spring Migrants
Sanderling	*****	*****	*Aug 25 (BBO)	*****	Transient - Spring & Fall Migrants
Semipalmated Sandpiper	May 17 (BBO)	May 25 (RF)	****	*****	Transient - Spring & Fall Migrants
Least Sandpiper		****	*Aug (EJ)	44244	Transient - Spring & Fall Migrants
White-rumped Sandpiper	*May 24 (RD)	*****	****	****	Transient - Spring & Fall Migrants
Baird's Sandpiper	*May 24 (RD)	*****	****	44444	Transient - Spring & Fall Migrants
(peep sp.)	May 7 (BBO)	June 3 (BBO)	****	Oct 10 (BBO)	
Pectoral Sandpiper	SGF	May 25 (RF)	Aug 11 (BP)	Oct 18 (DD)	Transient - Spring & Fall Migrants
Stilt Sandpiper	*May 24 (RF)	40400	*****	90000	Transient - Spring & Fall Migrants
Butt-breasted Sandpiper	May 24 (RD)	*****	*****	41040	Transient - Spring & Fall Migrants
Short-billed Dowitcher	May 25 (RF)	****	*****	Sept 28 (BBO)	Transient - Spring & Fall Migrants
Long-billed Dowltcher	May 15 (RF)	*****	Sept 14 (RF)		Transient - Spring & Fall Migrants
(dowitcher sp.)	SGF	MSC	June 29 (BP)	Nov 2 (DD)	
* Common Snipe	April 25 (RF)	*			Breeding
halaropes					
Wilson's Phalarope	May 15 (RF)			Aug 8 (BBO)	Breeding
Red-necked Phalarope	May 16 (BBO)	May 28 (BBO)	*****		Transient
laegers	(1000)	20 (000)		July 50 (DISO)	Treateristit.
•Long-tailed Jaeger	Aug 31 (CF)	Pr.Rec.: Sept 8 - 1	0.4077/005		
		nex: : 360tX - 1	~ 1967 (11 H H)		

		<u></u>			
Species	First Record	Last Spring	First Fall	Last Record	Status
Gulls		!			
Franklin's Gull	April 25 (RF)			. Oct 19 (BP)	Breeding
Bonaparte's Gull	SGF	****	July 16 (BBO)		Transient
Ring-billed Gull	: April 25 (RF)			Oct 4 (880)	Breeding
California Gull	April 19 (BP)	June 10 (BBO)	Aug 4 (BP)	Sept 10 (BBO)	Breeding - failed nesting 1993 and since
Herring Gull	May 15 (RF)	(JB)	*****	*****	Transient
(gull sp.)		<u> </u>		Oct 28 (BBO)	
Terns	· · · · · · · · · · · · · · · · · · ·				
Common Tern	May 12 (BBO)			Sept 3 (BBO)	Breeding
Forster's Tern	see tern sp.	*****	Sept 6 (BBO)	Oct 18 (BBO)	Breeding
Black Tern	May 21 (BBO)			Aug 15 (BBO)	Breeding
(tem sp.)		Many white te	rn sightings from	May to October	<u> </u>
Doves	!	L	:		
Rock Dove	← SGF			Nov 6 (RF) ->	Year round resident - urban / farm
Mourning Dove	SGF			Sept 17 (RF)	Breeding?
Owls		1			
Great Horned Owl	April 26(BP)			Oct 19 (BP)	Year round resident; Breeding
Snowy Owl		April 13 (BP)	Nov 28 (NAH)		Transient Winter visitor
Short-eared Owl	April 26(BP)		>		Breeding; Occasional winter visitor
*Long-eared Owl	*Aug (EJ)); May 30, 1994 (BBO); Aug 29, 1995 (BBO)
•Northern Saw-whet Owl	April 25 (PN)	Aug (EJ)	Pr.Rec.:one nes	t 1987 (RE); Sept 6.9	1(EJ)banded;Oct 4&5,'95 (BBO); Aug 25,'96 (EJ)
Nighthawks				÷	
Common Nighthawk	*Aug (EJ)	Pr.Rec:Aug 28.19	88(BBO):May 31	.1992(SJ):May 30.19	93 (MSC);June 2-13 (BBO)&Aug 18,1996(BBO)
Hummingbirds	;	<u> </u>		· · · · · · · · · · · · · · · · · · ·	1
Ruby-throated Hummingbird	May 31 (BBO)	June 7 (BBO)	****	*****	Breeding
Woodpeckers	/ (===/	<u> </u>			
Yellow-bellied Sapsucker	May 28 (BBO)	May 30 (BBO)	*****	*Sept (EJ)	Transient
Downy Woodpecker	-€ SGF	<			Year round resident; Breeding
Hairy Woodpecker	-€ SGF	-			Year round resident; Breeding
Northern Flicker	April 25 (RF)	~			Breeding
Flycatchers				330131 (==3)	
•Olive-sided Flycatcher	Aug (EJ)	Pr.Rec.: May 26 (SJ) & 31 (BBO)	1991; Aug 14, 1994 (JB)
Western Wood-Pewee	· May 28 (BBO)	June 8 (BBO)	*Aug 31 (BP)	*****	Breeding?
Yellow-bellied Flycatcher	* *****	****	*Aug (EJ)	*****	Transient
Alder Flycatcher	May 29 (BBO)			Sept 10 (BBO)	Breeding
(Traili's Flycatcher)	May 28 (BBO)				includes Alder & (rarely) Willow Flycatcher
Least Flycatcher	May 15 (RF)	1			Breeding
Eastern Phoebe	SGF	July 1 (BP)	Aug 31 (BP)		Breeding
Say's Phoebe	*****	****	*Aug 31 (BP)		Transient
Eastern Kingbird	May 23 (BBO)	_		Aug 29 (BBO)	Breeding
Shrikes				!	
Northern Shrike		March 31 (FW)	Sept 27 (BP)	Oct 27 (NAH) ->	Winter transient
Vireos				· · · · · · · · · · · · · · · · · · ·	
Blue-headed Vireo	May 30 (BBO)	July 5 (BBO)	Aug 26 (BBO)	Sept 10 (BBO)	Transient; formerly Solitary Vireo
Warbling Vireo	May 24 (BBO)	<			Breeding
Philadelphia Vireo	40000	*****	Aug 14 (BBO)		Transient
Red-eyed Vireo	May 13 (BBO)				Breeding
Jays and Crows					
Blue Jay	May 6 (BBO)	May 24 (BBO)	Sept 3 (BBO)	Oct 3 (BBO)	Summer transient; Winter resident
Black-billed Magpie	March 1 (FW)				Breeding; Year round resident
American Crow	April 25 (RF)				Breeding
Common Raven	March 1 (FW)	July 30 (BBO)	Sept 2 (BBO)		Breeding
Larks		,,	(000)	7 7 7	
Horned Lark	SGF	June 1 (BP)	*****		Breeding
Swallows		- dano i (Bi)			Dicoung
Purple Martin	SGF	*****	Aug 16 (BBO)	Aug 21 (BBO)	Breeding (Tofield and farms); Transient otherwise
Tree Swallow	SGF	_	Aug To (DDO)		Breeding
Bank Swallow	*May 15 (880)	****	(JB)		Transient
Cliff Swallow	May 15 (BEC)	May 18 (FW)	(30)		Breeding
Barn Swallow	May 5 (RF)	(Viety 10 (1 11)			Breeding
Chickadees	11107 3 (1117)			Sept 13 (DDC)	Diocatilă
Black-capped Chickadee	SGF			Nov 6 (RF)	Breeding; Year round resident
Nuthatches	: <u></u>			NOV O (DIT)	Diesang, Isai Iodia isabett
Red-breasted Nuthatch	June 26 (BBO)	<u> </u>		Oct 15 (BBO)	Breeding?
I IOC DI GOOGLI ITUILIDIUII	V4410 ZU (DDU) }	_			
White-breasted Nuthatch	4:-	*June 30 (BBO)	Sept 24 (BBO)	Sept 25 (BBO)	Transient; Winter visitor

Species	First Record	Last Spring	First Fall	Last Record	Status
Vrens	First necord	Last Spring	. Filstraii	Lastiticcord	Status
House Wren	May 22 (BBO)		<u> </u>	Sept 23 (BBO)	Breeding
Marsh Wren	SGF			Oct 5 (BBO)	Breeding
(inglets				0010 (000)	District
Golden-crowned Kinglet	*****	*****	Sept (EJ)	Oct 22 (BBO)	Transient, Fall migrant
Ruby-crowned Kinglet	May 8 (BBO)	May 15 (BBO)	Aug 21(BBO)	Sept 27 (BBO)	Transient
Thrushes	· Way 0 (555)	1	Augzilobol		1104101011
Mountain Bluebird	April 13 (BP)	May 19 (BBO)	10000	Sept 27 (BBO)	Breeding
Veery	*June 26 (BBO)	1 *****	****	*****	Breeding
Gray-cheeked Thrush	*****		*Aug 21 (BBO)	*****	Transient
Swainson's Thrush	May 11 (BBO)		> 32. (230)	Aug 29 (BBO)	Breeding
Hermit Thrush	May 8 (BBO)			Oct 16 (BBO)	Transient; Breeding?
American Robin	April 25 (RF)	-		Oct 26 (BP)	Breeding
Cathirds	1 .				
Gray Catbird	Jurie 8 (BBO)	*****	*****	Aug 29 (BBO)	Breeding?
Starlings	!	Ţ			
European Starting	March 31 (FW)			Nov 6 (RF)	Breeding; occasionally overwinters
Pipits					
American Pipit	SGF	****	*****	****	Transient - Spring & Fall Migrants
Sprague's Pipit	*****	****		"Sept 17 (BBO)	Breeding
Waxwings					
Bohemian Waxwing	****	••••	Nov 6 (RF)	>	Winter transient
Cedar Waxwing	May 31 (BBO)			Sept 16 (BBO)	Breeding
Wood Warblers					
Tennessee Warbler	May 21 (BBO)	June 3 (BBO)	July 20 (BBO)	Sept 14 (BBO)	Translent
Orange-crowned Warbler	May 9 (BBO)	May 28 (BBO)	Aug 20 (BBO)	Sept 27 (BBO)	Transient
Nashville Warbler	*****	1 00000	*Aug (EJ)		Pr.Rec: Aug 1992 (EJ); Fail 1994 (EJ)
Yellow Warbler	May 5 (BBO)	·			Breeding
Magnolia Warbler	*****	*****	Aug 20 (BBO)	Sept 23 (BBO)	Transient
Cape May Warbler	May 28 (BBO)	****	Aug 14 (BBO)		Transient
Yellow-rumped Warbler	May 6 (BBO)	June 2 (BBO)	Aug 3 (BBO)		Transient
Black-throated Green Warbler	****	****	Aug 23 (BBO)	Sept 11 (BBO)	Transient ·
 Townsend's Warbler 	*Aug 19 (BBO)	*Aug 21 (BBO)			Aug 24, 1992 (KH); Spring 1994 (EJ)
Palm Warbler	*May 20 (BBO)	****	Aug 31 (BBO)		Transient
-Bay-breasted Warbler	*****	****	*Aug (EJ)		91 (EML); Aug 31, 1992 (EJ); Fall 1994 (EJ)
Blackpoli Warbler	May 7 (BBO)	Јиле 8 (ВВО)	Aug 20 (BBO)		Transient
			4	Sept 6 (BBO)	Transient
Black-and-white Warbler	May 9 (BBO)	*****	Aug 21 (BBO)		
American Redstart	*May 21 (BBO)	****	Aug 8 (BBO)	Sept 14 (BBO)	Transient
American Redstart Ovenbird	*May 21 (BBO) *May 24 (BBO)	*****	Aug 8 (BBO) Aug 20 (BBO)	Sept 14 (BBO) Sept 6 (BBO)	Transient Transient
American Redstart Ovenbird Northern Waterthrush	*May 21 (BBO) *May 24 (BBO)	****** ***** . *****	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO)	Transient Transient Transient
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler	*May 21 (BBO) *May 24 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ),	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)	Transient Transient Transient 91:My 30,1993 (MSC);Fali'94 (EJ); Ag 25,'96 (EJ)
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler	*May 21 (BBO) *May 24 (BBO) *Aug 23 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO)	Transient Transient Transient 91:My 30,1993 (MSC);Fali'94 (EJ); Ag 25,'96 (EJ) Transient
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ),	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO)	Transient Transient Transient 91:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat	*May 21 (BBO) *May 24 (BBO) *Aug 23 (BBO) *May 6 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 24 (BBO)	Transient Transient Transient 91:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 7 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO)	Transient Transient Transient Transient 91:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler	*May 21 (BBO) *May 24 (BBO) *Aug 23 (BBO) *May 6 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO)	Transient Transient Transient 91:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.)	*May 21 (BBO) *May 24 (BBO) *Aug 23 (BBO) *May 6 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 7 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO)	Transient Transient Transient Transient 91:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) snagers	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 6 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO)	Transient Transient Transient Ot:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) snagers Western Tanager	*May 21 (BBO) *May 24 (BBO) *Aug 23 (BBO) *May 6 (BBO)	*Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 7 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO)	Transient Transient Transient Transient 91:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) snagers Western Tanager lative Sparrows	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 20 (BBO)	*Sept 6 (BBO) *Sept 6 (BBO) *Sept 6 (BBO) **********************************	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO)	Transient Transient Transient Ot:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) snagers Western Tanager lative Sparrows American Tree Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 20 (BBO) "May 20 (BBO)	*Sept 6 (BBO) *Sept 6 (BBO) *Sept 6 (BBO) ***** ***** June 3 (BBO) May 24 (RF)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Oct 28 (BBO)	Transient Transient Transient Ot:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) snagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO)	*Sept 6 (BBO) *Sept 6 (BBO) ****** June 3 (BBO) May 24 (RF) June 9 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 7 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Oct 28 (BBO) *Oct 4 (BBO)	Transient Transient Transient Ot:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient
American Redstart Ovenbird Northern Waterthrush "Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) snagers Western Tanager lative Sparrows American Tree Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 20 (BBO) "May 20 (BBO)	*Sept 6 (BBO) *Sept 6 (BBO) ****** ***** June 3 (BBO) May 24 (RF) June 9 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 7 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Oct 28 (BBO) *Oct 4 (BBO) Sept 23 (BBO) Sept 23 (BBO)	Transient Transient Transient D1:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) anagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow Clay-colored Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO) SGF	*Sept 6 (BBO) *Sept 6 (BBO) ****** ****** June 3 (BBO) May 24 (RF) June 9 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 7 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Oct 28 (BBO) *Oct 4 (BBO) Sept 23 (BBO) Sept 20 (BP)	Transient Transient Transient Ot:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Transient Transient Transient
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) anagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO)	*Sept 6 (BBO) *Sept 6 (BBO) ****** ***** June 3 (BBO) May 24 (RF) June 9 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 7 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Oct 28 (BBO) *Oct 4 (BBO) Sept 23 (BBO) Sept 20 (BP) Sept 14 (RF)	Transient Transient Transient D1:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding
American Redstart Ovenbird Northern Waterthrush -Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.)	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO) SGF SGF SGF	June 3 (BBO) May 24 (RF) June 9 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Oct 28 (BBO) *Oct 4 (BBO) Sept 23 (BBO) Sept 20 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (EJ)	Transient Transient Transient D1:My 30,1993 (MSC);Fali'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) anagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO) SGF SGF SGF SGF (JB)	June 3 (BBO) May 24 (RF) June 9 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Oct 28 (BBO) *Oct 4 (BBO) Sept 23 (BBO) Sept 20 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (EJ)	Transient Transient Transient D1:My 30,1993 (MSC);Fell'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler Canada Warbler (warbler sp.) Inagers Western Tanager Lative Sparrows American Tree Sparrow Chipping Sparrow Clay-colored Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow Saltmarsh Sharp-tailed Sparrow Fox Sparrow Song Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO) SGF SGF SGF SGF (JB) SGF	Sept 6 (BBO) Sept 6 (BBO) June 3 (BBO) May 24 (RF) June 9 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO) Pr.Rec.: 1985 (1 b	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 23 (BBO) Sept 23 (BBO) Sept 20 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (EJ) Sept (BBO)	Transient Transient Transient D1:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding
American Redstart Ovenbird Northern Waterthrush -Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) anagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow Clay-colored Sparrow Vesper Sparrow Savannah Sparrow Lecoste's Sparrow Saltmarsh Sharp-tailed Sparrow Fox Sparrow Lincoln's Sparrow Lincoln's Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO) SGF SGF SGF SGF (JB) SGF May 8 (BBO)	Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO) Sept 6 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO) Sept 21 (BBO) Aug 23 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 28 (BBO) Sept 29 (BBO) Sept 29 (BBO) Sept 20 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (EJ) Sept 10 (BBO) Sept 10 (BBO) Sept 27 (BBO)	Transient Transient Transient D1:My 30,1993 (MSC);Fell'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Breeding
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) Inagers Western Tanager Lative Sparrows American Tree Sparrow Chipping Sparrow Clay-colored Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow Saltmarsh Sharp-tailed Sparrow Fox Sparrow Lincoln's Sparrow Lincoln's Sparrow Swamp Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO) SGF SGF SGF SGF (JB) SGF May 8 (BBO)	Sept 6 (BBO) Sept 6 (BBO) June 3 (BBO) May 24 (RF) June 9 (BBO) May 23 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 17 (BBO) Aug 28 (BBO) Sept 21 (BBO) Sept 21 (BBO) Pr.Rec.: 1985 (1 b	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 23 (BBO) Sept 23 (BBO) Sept 20 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (EJ) Sept 1989 (2 banded); 1989 (2 banded); 1989 (2 banded) Sept 17 (BBO) Sept (EJ) Sept (EJ)	Transient Transient Transient Transient D1:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Breeding
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) Inagers Western Tanager Lative Sparrows American Tree Sparrow Chipping Sparrow Clay-colored Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow Saltmarsh Sharp-tailed Sparrow Fox Sparrow Lincoln's Sparrow Lincoln's Sparrow Swamp Sparrow White-throated Sparrow	"May 21 (BBO) "May 24 (BBO) "Aug 23 (BBO) "May 6 (BBO) "May 6 (BBO) "May 20 (BBO) "SGF May 12 (BBO) May 5 (BBO) May 8 (BBO) SGF SGF SGF SGF (JB) SGF May 8 (BBO) SGF SGF May 8 (BBO) SGF SGF SGF SGF SGF SGF May 12 (BBO)	June 3 (BBO) May 24 (RF) June 9 (BBO) May 23 (BBO) May 30 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO) Pr.Rec.: 1985 (1 b Aug 23 (BBO) Aug 23 (BBO) Aug 10 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 28 (BBO) Cct 4 (BBO) Sept 29 (BP) Sept 20 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (EJ) Sept 10 (BBO) Sept 10 (BBO) Sept 12 (BBO) Sept 12 (BBO) Sept 12 (BBO) Sept 10 (BBO) Sept 10 (BBO) Sept 12 (BBO) Sept 12 (BBO)	Transient Transient Transient Transient D1:My 30,1993 (MSC);Fali'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding: 14 & Sept 24, 1994 (BBO) Breeding Breeding Breeding: 1 bird on July 17 (BBO)
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) anagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow Clay-colored Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow Saltmarsh Sharp-tailed Sparrow Fox Sparrow Lincoln's Sparrow Swamp Sparrow White-throated Sparrow White-crowned Sparrow	*May 21 (BBO) *May 24 (BBO) *May 23 (BBO) **May 6 (BBO) **May 6 (BBO) **May 6 (BBO) **May 12 (BBO) **May 12 (BBO) **May 12 (BBO) **May 8 (BBO) **SGF *	June 3 (BBO) May 24 (RF) June 9 (BBO) May 23 (BBO) May 30 (BBO) May 16 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO) Aug 23 (BBO) Aug 23 (BBO) Aug 23 (BBO) Aug 10 (BBO) Sept 17 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 28 (BBO) Cct 4 (BBO) Sept 29 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (EJ) Sept 10 (BBO) Sept 10 (BBO) Sept 10 (BBO) Sept 27 (BBO) Sept 28 (BBO) Sept 28 (BBO) Sept 29 (BBO) Sept 29 (BBO) Sept 29 (BBO) Sept 28 (BBO)	Transient Transient Transient Transient D1:My 30,1993 (MSC);Fali'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding: 14 & Sept 24, 1994 (BBO) Breeding Breeding Breeding Fransient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding: 1 bird on July 17 (BBO) Fransient - Spring & Fall Migrants
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) snagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow Chipping Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow Saltmarsh Sharp-tailed Sparrow Fox Sparrow Lincoln's Sparrow Lincoln's Sparrow Swamp Sparrow White-throated Sparrow White-crowned Sparrow Dark-eyed Junco	*May 21 (BBO) *May 24 (BBO) *May 23 (BBO) **May 6 (BBO) **May 6 (BBO) **May 6 (BBO) **May 12 (BBO) **May 12 (BBO) **May 12 (BBO) **May 8 (BBO) **SGF *	Sept 6 (BBO) Sept 6 (BBO) June 3 (BBO) May 24 (RF) June 9 (BBO) May 23 (BBO) May 30 (BBO) May 16 (BBO) May 5 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) *Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO) Aug 23 (BBO) Aug 23 (BBO) Aug 23 (BBO) Aug 10 (BBO) Sept 17 (BBO) Sept 14 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC) Sept 10 (BBO) Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 28 (BBO) Sept 29 (BBO) Sept 29 (BBO) Sept 14 (RF) Aug 14 (BBO) Sept (BBO) Sept 10 (BBO) Sept 10 (BBO) Sept 10 (BBO) Sept 10 (BBO) Sept 25 (BBO) Sept 28 (BBO) Sept 28 (BBO) Sept 28 (BBO) Sept 28 (BBO) Sept 28 (BBO)	Transient Transient Transient D1:My 30,1993 (MSC);Fell'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding: Breeding Breeding: Bree
American Redstart Ovenbird Northern Waterthrush Connecticut Warbler Mourning Warbler MacGillivray's Warbler Common Yellowthroat Wilson's Warbler Canada Warbler (warbler sp.) anagers Western Tanager lative Sparrows American Tree Sparrow Chipping Sparrow Clay-colored Sparrow Vesper Sparrow Savannah Sparrow Leconte's Sparrow Saltmarsh Sharp-tailed Sparrow Fox Sparrow Lincoln's Sparrow Swamp Sparrow White-throated Sparrow White-crowned Sparrow	*May 21 (BBO) *May 24 (BBO) *May 23 (BBO) **May 6 (BBO) **May 6 (BBO) **May 6 (BBO) **May 12 (BBO) **May 12 (BBO) **May 12 (BBO) **May 8 (BBO) **SGF *	June 3 (BBO) May 24 (RF) June 9 (BBO) May 23 (BBO) May 30 (BBO) May 16 (BBO)	Aug 8 (BBO) Aug 20 (BBO) Aug 20 (BBO) Aug 17 (BBO) Pr.R.:My 25(EJ), Aug 21 (BBO) Aug 17 (BBO) Aug 17 (BBO) Aug 14 (BBO) *Aug 28 (BBO) Sept 21 (BBO) Aug 23 (BBO) Aug 23 (BBO) Aug 10 (BBO) Sept 17 (BBO) Sept 17 (BBO) Sept 14 (BBO)	Sept 14 (BBO) Sept 6 (BBO) Oct 5 (BBO) Oct 5 (BBO) In 8(TT)&Ag 22(BC)* Sept 10 (BBO) Sept 24 (BBO) Sept 27 (BBO) Sept 27 (BBO) Sept 4 (BBO) Sept 4 (BBO) Sept 28 (BBO) Cot 4 (BBO) Sept 29 (BP) Sept 20 (BP) Sept 14 (RF) Aug 14 (BBO) Sept (BD) Sept 1989 (2 banded); 1989 (2 banded)	Transient Transient Transient Transient D1:My 30,1993 (MSC);Fall'94 (EJ); Ag 25,'96 (EJ) Transient Transient Breeding Transient Transient Transient Transient Transient Transient Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding: Name altered ded); May 14 & Sept 24, 1994 (BBO) Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding Breeding: 1 bird on July 17 (BBO) Fransient - Spring & Fall Migrants

Species	First Record	Last Spring	First Fall	Last Record	Status		
Cardinals			1				
Rose-breasted Grosbeak	May 18 (FW)	June 2 (BBO)	Aug 3 (BBO)	Aug 23 (BBO)	Transient		
Blackbirds and Allies	1			<u></u>			
Bobolink	May 24 (RF)	June 19 (BBO)	*****	*****	Breeding; Spring and Summer		
Red-winged Blackbird	SGF	<		Sept 14 (RF)	Breeding		
Western Meadowlark	April 19 (FW)			Sept 27 (BP)	Breeding		
Yellow-headed Blackbird	SGF			Aug 12 (BBO)	Breeding		
Rusty Blackbird	*SGF	****	*****	*Oct 19 (BP)	Transient		
Brewer's Blackbird	SGF			Sept 17 (RF)	Breeding		
Common Grackle	*SGF	****	*****	*Sept 26 (RF)	Transient		
Brown-headed Cowbird	May 6 (BBO)			Aug 12 (BBO)	Breeding		
Baltimore Oriole	May 23 (BBO)	\leq		Aug 26 (BBO)	Breeding		
(blackbird sp.)				Sept 27 (BBO)			
Finches and Grosbeaks			*O-+00 (DBO)	<u> </u>	Transitati		
Pine Grosbeak Purple Finch	SGF	turne O4 (PPO)	*Oct 28 (BBO)	*****	Transient •		
•Red Crossbill	*April 26 (BP)	June 21 (BBO)	****		Pr.Rec.: July 31, 1992 (JDx/KH) (3 banded)		
Common Redpoil	April 20 (BF)	*****		<u> </u>	Transient; Winter visitor		
Pine Siskin	May 31 (BBO)		OC(21 (BBO)	Oct 19 (BBO)	Breeding? Transient		
American Goldfinch	May 23 (BBO)			Oct 15 (BBO)	Breeding		
Evening Grosbeak		*****	Oct 5 (BBO)	Oct 28 (BBO)	Transient; Winter visitor		
Weaver Finches				<u> </u>			
House Sparrow	< SGF	_		Nov 6 (RF)	Breeding; Year round resident; Urban/farm		
					!		
· 	 						
Regularly Occurring Species that	vere NOT recorded	in 1997:		 			
tregularly coodifing openies that i	Previously Record			<u> </u>			
Greater Scaup			\. lung 6 1002 /5	5J); May 13 (BBO) &	30 (MSC) 1002:		
Greater Scaup		3C); May 4 (JB) &		30), IVIAY 13 (DBC) A	30 (M30), 1993,		
Barrow's Goldeneye				?);July 4, 1995 (BC);	May 5, 1996 (BC)		
Hooded Merganser							
	May 18 (EML), 26 (MSC), 1991; May 27, 1992 (RF); Sept 26, 1992 (BHLC); July 20 & Aug 4(?), 1994; July4, 1995 (BC); July26, 1996 (BC)						
Prairie Falcon	July 25, 1990 (DD); July 13 & Aug 16, 1992 (DD); Aug 4, 1994 (?);						
	July 21 & Sept 13, 1995 (DD); June 30 (BBO)						
Dunlin	May 20 TT & 26 (D	D), 1991; May 27 ((RF); May 3 (RF/L	DD) & 15 (BBO), 199	3;		
. 				0 (BBO) & 19 (RD),	1996		
Boreal Chickadee	July 31(ED), Oct 6						
Sedge Wren					3 (BC); Aug 2, 1994 (JB)		
Hoary Redpoll	Dec 20 (DN) & Dec	29 (MT), 1991; JE	in 12, 1992 (DN);	Jan 3, 1993 (MY)			
							
Accidental and Very Rare Species	NOT Recorded in 19	97	······································				
	Previously Record	led:		i			
Red-throated Loon	Oct 3, 1979 (DD); A	ug 12, 1992 (BC)					
Clark's Grebe	only record - Sept 1						
Great Egret	June 7 - 11, 1987 (F		(JH)				
Turkey Vulture	Aug 26,1967 (DD);						
Brant				April 18 -21, 1995 (F	RD)		
Wood Duck	May 3, 1980 (RE); N						
Am Black Duck	Aug 23, 1887 (BT);						
Harlequin Duck	undated record S&S						
Surf Scoter	May 19, 1986 (PD);				(PD)		
Ferruginous Hawk Golden Eagle				3 (DD); May 19, 1996 995 (RD); May 24, 1			
··· Virginia Rail					I); July 16, 1996 (BBO)		
Piping Plover					7/MB), 1996 (nesting)		
Black-necked Stilt				(KH); June 12, 1993			
Western Sandpiper);May 12, 1996 (BC)			
Ruff	May 8, 1978 (DD); A		1	1	· · · · · · · · · · · · · · · · · · ·		
Red Phalarope	Sept 27, 1990 (DD)						
Little Gull	Aug 26, 1989 (DD);		x)				
Mew Gull	Aug 8, 1988 (DD); S	ept 7, 1991 (DD)					
Glaucous Gull	March 31, 1985 (GH); May 11, 1992 (S					
Sabine's Gull	Sept 5, 1975 (DD); S		1991 (TT)				
Caspian Tern	May 4, 1985 (RE); J	uly 8, 1991 (BC)!	·				

	ies NOT Recorded in 1997 (continued)
Barred Owl	Sept 16, 1995 (BBO)
Great Gray Owl	Spring 1925 (Rowan / RL); Sept 1, 1992 (FF)
Belted Kingfisher	May 22, 1990 (RD); June 18, 1996 (RD)
Pileated Woodpecker	Apr 15, 1988 (EML); Oct 18, 1992 (DN); May 30, 1993 (JH); Sept 16, 1995 (BBO)
Willow Flycatcher	July 29, 1993 (GH) - see Traill's Flycatcher above
Great Crested Flycatcher	July 12, 1987 (RE); Aug 19, 1994 (BBO); July 4, 1995 (BC)
Western Kingbird	June 7, 1979 (RK); June 28, 1993 (BC)
N. Rough-winged Swallow	May 27, 1991 (EJ); June 23, 1991 (DN); May 21, 1993 (JF)
Gray Jay	Oct 18, 1992 (PH)
Brown Creeper Winter Wren	Sept 28, 1990 (EJ); Sept 23, 1992 (BC); Sept 24 - 26, 1994 (KH); Sept 6 & 20, 1995 (BBO) Sept 26, 1996 (BBO)
Townsend's Solitaire	
Varied Thrush	Apr 11, 1981 (DD); Apr 27, 1996 (NAH) Sept 26, 1994 (KH)
Northern Mockingbird	
Brown Thrasher	May 14, 1975 (DD); July 29, 1993 (JDx/JB) Breeding (EJ); 1988 (EJ); May 20, 1991 (EML); May 30, 1992 (EH)
Loggerhead Shrike	
Chestnut-sided Warbler	June 1, 1996 (GS)
Blackburnian Warbler	Aug 30, 1990 (SJ); Sept 21, 1991 (EML); Aug 31, 1992 (EJ); Aug 16 & fall, 1994 (EJ); Aug 23, 1995 (BBO)
	Aug 24, 1989 (SJ); Aug 31, 1992 (EJ); Fall 1994 (EJ) May 24, 1990 (EJ)
Indigo Bunting	
Lark Sparrow	May 18, 1991 (TT)
Lark Bunting Golden-crowned Sparrow	May 15, 1984 (RE); June 15, 1991 (EO); May 26, 1992 (BC)
	Apr 4, 1992 (WF)
Harris' Sparrow	Jan 12, 1992 (DN); Oct 3, 1992 (JL); May 22, 1996 (BBO)
Smith's Longspur	May 13, '82 (?); May 7, '89(?); Sept '91(DD); May 15 (DD) & 16 (BC), '95; Sept 7 & Oct 30, '95 (RD); May 12, '96 (BC)
White-winged Crossbill	Jan 12, 1992 (DN)
ilstorical records	
	
lo records as of 1989:	
Snowy Egret	June 1984 (CMc)
Black Scoter	May 15, 1982 (EJ)
Oldsquaw	Oct 4, 1964 (RL/RT); April 29,1984 (RE)
Greater Prairie-Chicken	Extirpated - last seen in 1932
Whooping Crane	Oct 1966 (DD)
Wandering Tattler	Sept 2, 1973 (OH)
Long-billed Curlew	undated (S&S)
Surfbird	Sept 21, 1975 (RK)
Sharp-tailed Sandpiper	Sept 27,1987 (EML)
Parasitic Jaeger	Oct 15, 1983 (BBO); Jaeger sp May 25, 1995 (DD); Sept 6, 1996 (DD)
iceland Guli	Oct 22, 1926 (RL)
Black-legged Kittiwake	May 15, 1988 (RE)
Arctic Tern	May 11, 1985 (RE)
Ancient Murrelet	Oct 2, 1983 (DD)
Black-billed Cuckoo	Banded in 1986 & 1987; Nest 1987; 1992 (PH) - one bird reported to west of BHL zone
Northern Hawk Owl	Oct 13, 1973 (DD)
Burrowing Owl	May 1983 (RS); rumours of sighting in 1995
Boreal Owl	May 15, 1983 (EJ) - found dead
Red-headed Woodpecker	May 24, 1987 (DN)
Scarlet Tanager	May 11, 1985 (PD)
Baird's Sparrow	May 1989 (RE)
McCown's Longspur	Sept 12, 1977 (MM)
Chestnut-collared Longspur	undated (S&S)
	-
eonfirmed sightings:	
Willow Ptarmigan	only record - April 4, 1992 (Cliff Kulak)
Band-tailed Pigeon	only record - June 25 - July 1, 1996 (R. Pellerin)
Rufo3s-sided Townee	only record - May 25, 1996 (Brian Hornby)
	
	
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Index to 1997 Contributors:	Initials	Name			
	BBO	1	bservatory Banding a	ind Census Recor	ds
	:JB	Josh Bilyk	Daring C		
 -	JDx	Jason Duxbury	 		
	DD	Dick Dekker	 		
	BC	Bob Carroll	 		
	·EJ	Edgar T. Jones			
	RD	Ross Dickson	!		i
	RF	Roy Fairweather	:		·
	BP	Bob Parsons			
	.MB	Michael Barr	<u> </u>		
	BH	Brian Hornby	<u> </u>		
	FW _	Fred Whiley	<u> </u>		
	JN	Jiri Novak			
	CF	Chris Fisher			
	PN	Pat Nolan	<u> </u>		
	JL	Jim Lange	<u> </u>		
	:(JB)	Josh Bilyk - 1997	Habitat Study (no da	tes given)	
			:		,
Index to					
Previous Contributors:	Initials	Name	L	itials	Name
	JA	John Acorn	EN		Ed Mah-Lim
	JDG	Joan DeGeer	MI		Martin McNicholl
· · · · · · · · · · · · · · · · · · ·	PD	Peter Dunn	CI		Cathy Mowat
	:RE	Rainer Ebel	DI		Dave Nadeau
	:JF	Jim Faragini	EC		Elson Olorenshaw
	WF	Warren Finlay	MF		M. Powell
	FF	Frank Fraser	GS		G. Scollon
	PH	Peter Haddock	RS		Ron Slagter
	KH	Kevin Hento	BS		Bob Storms
	OH	Otto Hohn			Terry Thormin
	:AH	Art Hughes	ET		Eric Tull
<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	SJ	Stefan Jungkind	ВТ		Bruce Turner
<u> </u>	:RK	Richard Klauke	JW		Jim Wolford
	'RL CMc	Robert Lister Chel Macdonald	<u> </u>	- 	
	CIVIC	Chel Macconaid			
	MSC	May Species Cou	nt		
	'NAH	Northern Alberta		i	
 _	1	THO THE CALL	TOBING TYCDORC		
2011-00-	<u> </u>				
Sources:	<u> </u>				
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Beaverhill Sight Records Zone:	1	-			•
	!	• 1	· · · · · ·		
	North Boundary:	Highway 16	 -		
	South Boundary:				
		RR 172 (Ryley and	i north)		
			y 834 (Tofield and no	orth)	
			· 		

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 personel) 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 it's 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:

Eird Sanding 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.