

ONTARIO Bird Banding

Vol. 12 No. 1 1978



Hawk Cliff Raptor Banding Station
Sixth Annual Report, for 1976

ONTARIO BIRD BANDING

Published by the
Ontario Bird Banding Association

Volume 12; Number 1

July, 1978

Editor: Dr. Duncan A. Mac Lulich

Referees: Dr. Jon Barlow, Curator of Ornithology,
Royal Ontario Museum, Toronto.

Dr. Bruce Falls, Associate Chairman,
Department of Zoology, University
of Toronto.

Dr. Raleigh J. Robertson, Assistant
Professor, Department of Biology,
Queen's University, Kingston.

Dr. J. P. Ryder, Associate Professor,
Department of Biology, Lakehead
University, Thunder Bay.

CONTENTS

Hawk Cliff Raptor Banding Station, Fifth
Annual Report. 1976.

Marshall Field and William Rayner

1

Cover Illustration: American Kestrel
by Sheila Fowler

ISSN # 0475-025x

HAWK CLIFF RAPTOR BANDING STATION
SIXTH ANNUAL REPORT 1976

Marsnall Field *
and
William Rayner *

There has been a continual yearly increase in numbers of raptor banded since our first season in 1969, so the year of levelling off or a decrease had to come eventually. In 1976, there were 1,178 fewer raptors banded at Hawk Cliff than in the previous year, see Table #1. The contributing factors to this decline was a decrease in coverage hours at the stations, see Table #6 and very poor trapping opportunities during the month of December. A history of published reports was outlined in the 1974 Annual Report

METHODS

The location of Hawk Cliff is latitude $42^{\circ} 41' N$, longitude $81^{\circ} 10' W$ in Elgin County, Ontario, Canada. The ecological setting was described by Field, 1970.

STATION CHANGES

A map of Hawk Cliff Raptor Banding Station area showing the location of each individual station is in Figure #1. The changes in location involved #5, #2 and #7 stations. The building at #7 station was moved to #2 location, see Figures #1 and #2, and set up 12.2 metres to the south of the research building. This placed the station closer to the bownets and will allow banding to be carried out without possible interference from anyone working on a research project in the larger building. The new station established on the Bob Ward farm, .804 metres north of the Ontario Water Resources filtration plant is now referred to as #7, see Figure #1 and #4. The #5 station was moved to a new position about 183 metres to the north east, also see Figure #1 and #3, with existing sumac and wild grape providing good background material for mist nets. The station was set low by digging to a depth of 0.9 metres in the existing rise of ground level.

* Marshall Field, 89 Elm St., St. Thomas, Ontario, Canada. N5R 1H7
* William Rayner, 36 Valerie St., St. Thomas, Ontario, Canada. N5R 1A8

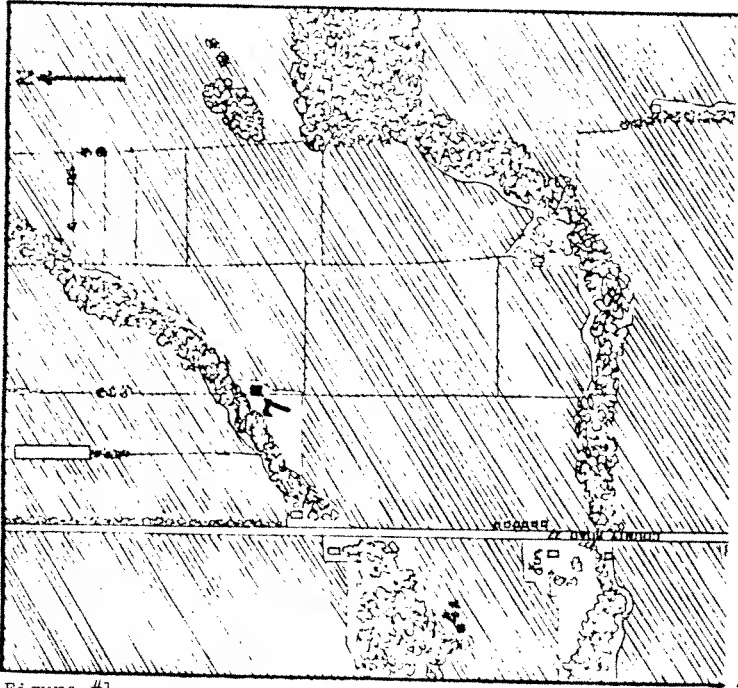
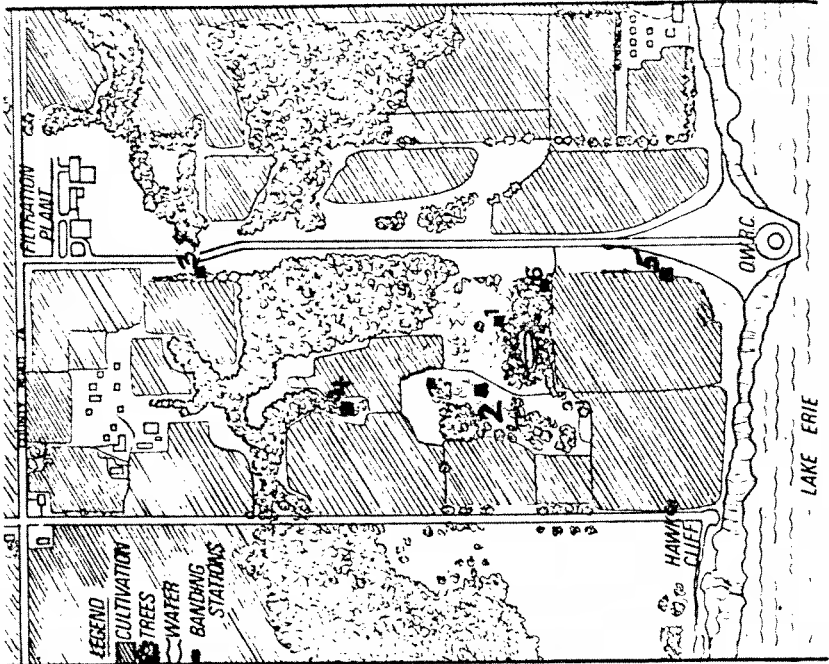


Figure #1- Map of woodland and fields in vicinity of



Figure #2-
The new trapping
building at
#2 location.



Hawk Cliff with the changes of #5, #2 and #7 stations.

Fig. 1.



Figure #3-
The new position
for #5 station.

RESULTS

The total of raptors banded at Hawk Cliff in 1976 was 2,889, see Table #2. It was a low migration year for Goshawk, also Red-tail banding dropped to almost half of the 1975 figure while Red-shouldered showed a slight increase to ten. American Kestrels showed a slight increase to 590 but that may be due to better catching success at the new location for #5 station.

STATION #5 AND #7 RESULTS

Table #2 shows the drastic increase in numbers of raptors banded at the new location, #5 station, an increase of 703 over 1975. The new #7 station showed promise especially with Red-tails as they tend to fly farther inland late in the season.

AGE CLASS DISTRIBUTION

This is shown in Table #3. Again this year about 85% of hawks caught were hatching year birds.

EFFECTIVENESS OF VARIOUS CATCHING METHODS

Monthly totals are compared in Table #4. Migrating hawks were captured at Hawk Cliff through the first week of January and each succeeding months by other methods such as roadtrapping and nest boxes.

A comparison of lure birds is presented in Table #5. The cowbird continues to be the most effective lure for the smaller accipiters. The numbers of each species caught by the various methods are in Table #7. Mist nets continue to be our prime trapping tool for the smaller hawks while the bownet is relied upon more heavily for the larger species.

HAWK SIGHTINGS

Observations are listed in Table #8. Sightings from the banding stations are not always the most desirable because of the impossibility to trap, band and observe at the same time during an active trapping day. These observations do give some indication of the volume of birds passing through and are processed to try and eliminate the possible inter-station overlap. These are also included in the report of the Eastern Great Lakes Region for the Hawk Migration Association of North American as presented by compiler Dave Copeland of Hamilton, Ontario. They are also reported to Clive Goodwin for the Ontario Naturalist and American Birds.

A legend relating the English names to scientific names and to abbreviations is in Table #11.

KESTREL NEST BOX PROGRAM

The Kestrel nest box program was continued again this year. This project was initiated in 1974 and reported in Ontario Bird Banding, Vol.10, No.1 and Vol.11, No.1. The results are listed in Table #9. In Area A, St. Thomas South, eight female Kestrels were captured on the nest, seven of these were new bandings and one a return. The return had occupied nest box #21, two miles to the east in 1975 and this box had been disrupted when the Bell Telephone Company had removed the pole. A young Kestrel from John Lemon's nest box project near Lively, Ontario, banded in July was recaptured at Hawk Cliff in September, see Table #10. It is surprising that none of our local nestlings were recaptured at Hawk Cliff during the fall of 1976. There were no major changes in territories or the number of boxes this year.

HAWK CLIFF VIEWING WEEKEND

The Ministry of Natural Resources with assistance from the St. Thomas Field Naturalists Club and the Hawk Cliff Raptor Banding Station sponsored another viewing weekend in September. The banding station was able to contribute again by providing captured hawks for the public to see and photograph at close range. This event was a highlight for the seasoned and novice hawk watcher.

FOREIGN RECOVERIES, FOREIGN RETRAPS, RETURNS AND REPEATS

These are listed with details in Table #10.

(1) Foreign Recoveries

By definition of the term, these birds died at or before time of recovery.

(2) Foreign Retraps

These birds were caught and released in a different 10' grid than where they were banded.

(3) Returns

A return is a bird recaptured and released after at least 90 days in the same 10' grid where it was banded, e.g. at or near Hawk Cliff.

(4) Repeats

A repeat is a bird recaptured and released within 89 days in the same grid where it was banded.

ACKNOWLEDGEMENTS

The dedicated effort of all banders and those who prepare records and help compile reports is appreciated. The actual trapping and banding is the most enjoyable part of the station's function, but we must not lose sight of the importance of good record keeping so that all reports can be compiled accurately. As always, we are appreciative to the landowners, Mr. Steve Ivan, Mr. Bob Ward and the Ontario Water Resources Commission for permission to operate on their property.

Literature Cited

- Field, Marshall and William Rayner, 1976. Hawk Cliff Raptor Banding Station Fourth Annual Report 1974. Ontario Bird Banding 10:2:21.
- Field, Marshall 1970. Hawk-banding on the Northern Shore of Lake Erie. Ontario Bird Banding 6: 4: 52-69
- Field, Marshall and William Rayner 1977. Hawk Cliff Raptor Banding Station Fifth Annual Report 1975. Ontario Bird Banding 11:1:9,13.
- Spicer, Robert and Marshall Field, 1975. American Kestrel Nest Box Program-1974 Report. Ontario Bird Banding 10: 1: 9-15.



Figure #4-
The new #7 Station on the Bob
Ward farm.

TABLE #1

	<u>RAPTORS BANDED FROM HAWK CLIFF STATION</u>								
	<u>1969</u>	<u>1970-71</u>	<u>1971-72</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>TOTALS</u>
GOS**	-	5	3	13	41	12	33	9	116
SSH	40	166	223	390	446	1398	2726	1862	7251
CH	9	10	50	81	49	90	147	104	540
RT	4	71	345	285	398	262	504	277	2146
RS	-	3	5	4	10	1	9	10	42
EW	1	-	-	2	1	6	4	1	15
Sw	-	-	-	-	-	-	1*	-	1
RL	-	-	5	3	-	2	2	-	12
GE	-	-	-	1*	-	-	-	-	1
MH	1	2	28	33	29	50	56	37	236
GYR	-	-	-	-	1*	-	-	-	1
PF	1	1	4	-	1	1	1	-	9
M	-	-	-	1*	-	3	6	2	12
AK	143	85	56	212	249	486	721	761	2713
BNO	-	-	-	-	1*	-	-	-	1
SCO	2	-	2	12	8	1	9	6	40
GHO	-	1	7	18	20	15	-	4	65
SNO	-	-	-	-	-	1*	1	-	2
HO	-	-	-	1*	-	-	-	-	1
LEO	-	-	4	1	4	1	5	2	17
SWO	1	-	1	-	1	12	49	5	69
N.Shrike	-	-	-	-	-	3*	2	-	5
L.Shrike	-	-	-	-	1*	-	-	-	1
	202	344	733	1057	1260	2344	4276	3080	13296

* denotes first of species banded

** see Table #11 for legend to English and scientific names

ONTARIO BIRD BANDING

TABLE #2

INTER-STATION BANDING TOTALS BY SPECIES

	#1	#2	#3	#4	#5	#6	#7	TOTALS								
	1975-1976	1975-1976	1975-1976	1975-1976	1975-1976	1975-1976	*1975-1976	1975	1976							
GOS	3	6	2	1	4	-	1	2	1	33	9					
SSH	177	182	358	300	328	411	1496	184	23	373	295	298	49	114	2726	1862
CH	5	11	32	34	13	19	71	13	-	15	8	6	18	6	147	104
RT	83	49	50	48	60	22	261	25	-	16	35	30	1	77	490	267
RS	2	2	1	-	-	1	4	-	-	1	1	2	-	4	8	10
BW	-	1	1	-	2	-	1	-	-	-	-	-	-	-	4	1
Sw	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
RL	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-
MH	3	4	1	1	2	1	43	4	3	17	1	7	3	3	56	37
PF	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
M	1	-	1	-	-	-	2	-	-	1	2	-	-	1	6	2
AK	31	49	13	17	18	16	61	13	53	359	158	128	203	8	537	590
SCO	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-
LEO	-	-	5	2	-	-	-	-	-	-	-	-	-	-	5	2
SWO	-	-	49	5	-	-	-	-	-	-	-	-	-	-	49	5
N.SHRINE	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-
	305	298	518	408	425	471	1960	243	80	783	502	472	277	214	4067	2889

*#7 station in 1975 was located as indicated in Figure #1

TABLE # 3
A COMPARISON OF SPECIES BY AGE

	HATCHING YEAR		AFTER HATCHING YEAR		NOT AGED		TOTALS	
	1975	1976	1975	1976	1975	1976	1975	1976
GOS	32	9	1	-	-	-	33	9
SSH	2407	1622	319	240	-	-	2726	1862
CH	128	76	19	28	-	-	147	104
RT	417	206	87	61	-	-	504	267
RS	6	8	3	2	-	-	9	10
EW	4	1	-	-	-	-	4	1
MH	50	36	6	1	-	-	56	37
PF	1	-	-	-	-	-	1	-
M	6	2	-	-	-	-	6	2
AK	594	492	125	46	2	52	721	590
LEO	-	-	-	-	-	2	-	2
SNO	-	4	-	1	-	-	-	5
TOTALS	3645	2456	560	379	2	54	4207	2889*

* DOES NOT INCLUDE ROADTRAPS AND NESTLINGS.

ONTARIO BIRD BANDING

TABLE # 4

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTALS</u>
GOS									1	2	6		9
SSH									1525	330	7		1862
CH	1								11	87	5		104
RT	16						3		7	105	82	64	277
RS										3	1	6	10
BW									1				1
MH									20	11	3	3	37
N									1	1			2
AK	5			1	31	122	5	10	526	54	1		761
SCO		1			5								6
GHO	1				2							1	4
LEO										2			2
SWO										5			5
	23	1	6	1	38	122	8	10	2092	600	105	74	3080

TABLE # 5 COMPARISON OF RAPTORS CAUGHT WITH VARIOUS LURE BIRDS

(does not include road traps)

	<u>STARLING</u>	<u>SPARROW</u>	<u>COMBIRD</u>	<u>RED-WING</u>	<u>PIGEON</u>	<u>MOUSE</u>	<u>OTHER/ UNKNOWN</u>
GOOS	-	-	-	-	9	-	-
SSH	158	332	1354	-	13	-	5
CH	15	1	39	-	49	-	-
RT	57	-	4	-	206	-	-
RS	3	-	1	-	6	-	-
BW	-	-	1	-	-	-	-
MH	6	13	13	-	5	-	-
M	1	1	-	-	-	-	-
AK	3	425	156	-	5	1	-
LEO	-	-	-	-	-	-	2
SWO	-	-	-	-	-	-	5
TOTAL	243	772	1568	-	293	1	12 (2889)
1975 -	129	429	2911	1	531	61	5 (4067)

TABLE # 6
STATION COMPARISONS FOR TRAPPING RESULTS

Station #	TOTAL NEW BANDING		TOTAL DAYS OPERATING		AVERAGE BIRDS BANNED PER DAY		TOTAL HOURS OPERATING	
	1975	1976	1975	1976	1975	1976	1975	1976
#1	305	298	60	79	5.1	3.8	184 3/4	187 1/2
#2	518	408	45	48	11.5	8.5	218 1/2	216 1/2
#3	425	471	43	44	9.9	10.7	186 1/4	184 3/4
#4	1960	243	70	41	28.0	5.9	394 1/2	117 3/4
#5	80	-	11	-	7.3	-	40	-
(#7)	277	783	31	35	8.9	22.4	181 1/4	195
#6	502	472	35	37	14.3	12.8	173 1/2	120
#7	-	214	-	44	-	4.9	-	126 1/2
TOTALS	4067	2889	295	328	12.1	9.9	1378 3/4	1147 3/4

TABLE # 7
SPECIES CAPTURE BY ALL METHODS

	MIST	BOW	BC*	PT*	NESTLING	NEST BOX	TOTAL TRAPPED	FOR. RETRAFS (RETURNS/ REPEATS)	TOTAL Banded
GOS	-	9	-	-	-	-	9	-	9
SSH	1608	277	-	-	-	-	1885	-23	1862
CH	31	74	-	-	-	-	105	-1	104
RF	5	259	13	-	3	-	281	-4	277
RS	1	9	-	-	-	-	10	-	10
BW	1	-	-	-	-	-	1	-	1
MH	21	16	-	-	-	-	37	-	37
M	2	-	-	-	-	-	2	-	2
AK	508	76	22	-	149	9	764	-3	761
SOO	-	-	-	-	5	1	6	-	6
GHO	-	-	-	2	2	-	4	-	4
LEO	2	-	-	-	-	-	2	-	2
SWO	5	-	-	-	-	-	5	-	5
TOTALS	2184	720	35	2	159	10	3111	-31	3080

BC* Bal-Chatrri
PT* Pole Trap

TABLE #8 DAILY TOTALS OF RAPTORS OBSERVED-1976

	AUGUST			SEPTEMBER														
	29	30	31	1	2	3	4	5	6	7	9	10	11	12	13	14	15	16
TV				1									2					
GOS																		1
SSH				1	2	2	319	80	1	126	4	731	566	243	167	534	115	
CP																		1
RT	1						8	20					5	1			1	41
RS																		
EW		1					525	31				4					1	383
Sw																		
GE																		
MH	1			2	1		15	19	3	3	5	14	16	8	5	26	6	
OS							1					3	2	5		5		
PF																		
M																		
AK	6	42	5	6	119	13	18	132	152	4	7	16	132	119	61	47	208	47
	6	44	6	6	123	16	20	1000	302	8	136	25	891	704	317	219	777	592

17	18	19	20	21	22	23	24	25	27	28	29	30	TOTALS
	1	4	1	2	3		4	3	12	35	10		78
													1
120	1771	1564	352	610	402	94	252	1308	661	380	326	603	11334
	4	8	1	1	4				23		11	7	60
1	11	16		9	3		9	20	18		2		166
							1					3	4
7	2083	659	6	6	34	45	173		766	1247			5972
		1											1
									1				1
17	52	54	4	15	23	1	3	32	12	20	21	18	396
5	28	18	2	4	4	2			11	4			94
									2				2
							1		3				4
240	1545	277	30	230	167	14	289	367	247	317	300	505	5661
390	5495	2601	396	877	640	156	732	1730	1756	2003	670	1135	23773

TABLE # 8 DAILY TOTALS OF RAPTORS OBSERVED-1976

	OCTOBER													
	1	2	3	4	5	7	8	9	10	11	12	13	14	
TV	1		6		1	67	103	6	150			1	105	
GCS					2	1	2						1	
SSH	361	286	463	116	45	184	148	97	89	134	1	88	261	
CP	27	17	41	25	7	33	32	2	10	12	4		18	
RT	6	4	15	4	3	77	77	8	27	13		6		
RS		1				1								
BW			2											
Sw			1											
RL														
GE														
MH	19	38	59	10	16	13	18	24	8	8	4	8	8	
CS			2					1					3	
PF					2									
M	2								1					
AK	44	42	97	20	3	55	9	66	6	28	3	9	36	
	460	387	686	176	79	431	389	204	291	195	12	112	432	

15	16	17	18	19	21	22	23	24	25	26	27	28	29	30	31	TOTALS
	73	44	20		7	2				42	2					630
	1	?	1				7			1						23
	956	481	94		1	1	14		4	8					4	3836
1	64	119	12	4	1	3		3	3	5	1			1		445
	136	875	521	6	2	2	7		7	620	550	1		1	3	2971
	5	2	2							1						12
																2
																1
	1									1					2	4
			1													1
	30	60	2		1		6	2	36	20					13	403
																6
																2
																3
	18	22	3				3		2	7						473
1	1284	1610	656	10	12	8	37	5	52	705	553	1		2	22	8812

-----STATION OPEN BUT NO HAWKS OBSERVED-----

TABLE # 8

DAILY TOTALS OF RAPTORS OBSERVED-1976

	DECEMBER											TOTALS		
	3	4	5	7	11	12	14	18	19	24	28		29	31
TV	1													1
SSH		1						1						2
CP								2						2
RT	79	8	47	220	34	4	2	5	1	5	13	6	1	425
RS	1		1		6							2		10
RL			3	6	2									11
BE					1									1
MH	1	14	9	1							2			27
AK		1					1	1		1				4
	82	24	60	227	43	4	3	9	1	6	15	8	1	483

TABLE # 9 1976 KESTREL NEST BOX RESULTS - AREA A - St. Thomas, South

BOX NO. USED BY KESTRELS	NO. EGGS	NO. YOUNG	M	F	DATE BANDED	ADULTS BANDED	M	F	DATE BANDED	FATE OF NESTING	PREVIOUS YEARS USED
2	U	5	2	3	05-28-76	-	-	-	-	Success	1975
3A	4	1	-	-	-----	1	-	1	05-18-76	Failure	----
3B	U	4	4	4	06-02-76	1	-	1	05-18-76	Success	1975
5A	4	-	-	-	-----	1	-	1	05-18-76	Deserted	----
6	U	5	2	3	06-02-76	-	-	-	-----	Success	1975
6B	U	2	U	U	06-07-76	-	-	-	-----	Success	----
7	5	4	4	4	06-07-76	(1975 Box#21)	1	1	06-06-75	Success	1974 1975
9	U	5	3	2	06-02-76	-	-	-	-----	Success	----
13	5	5	3	2	06-07-76	-	-	-	-----	Success	1974 1975
16	U	5	3	2	06-02-76	-	-	-	-----	Success	1975
18	5	5	3	2	06-22-76	1	1	1	05-18-76	Success	1975
22	U	3	1	2	06-07-76	1	1	1	05-18-76	Success	1974
25	5	-	-	-	-----	1	1	1	05-20-76	Failure	1974
26	U	5	1	4	06-07-76	1	1	1	05-20-76	Success	----
32	U	5	1	4	06-07-76	-	-	-	-----	Success	1975

TOTAL BOXES IN AREA - 33

AREA CO-ORDINATOR - Marshall Field

TABLE # 9 Cont. 1976 KESTREL NEST BOX RESULTS - AREA B - St. Thomas, North

BOX NO. USED BY KESTRELS	NO. EGGS	NO. YOUNG	M	F	DATE BANDED	M	F	DATE BANDED	FATE OF NESTING	PREVIOUS YEARS USED
2	U	5	2	3	05-29-76	-	-	-----	Success	1975
4	U	4	2	2	05-29-76	-	-	-----	Success	-----
5	U	1	1	-	05-29-76	-	-	-----	2 infertile eggs	1975
6	U	6	3	3	06-05-76	-	-	-----	Success	-----
9	U	4	3	1	05-28-76	*1	-	04-28-76	Success	-----
10	5	5	1	4	07-10-76	-	-	-----	Success	-----
14	U	5	3	2	06-05-76	*1	1	04-28-76	Success	-----
16	5	2	-	2	06-19-76	-	-	-----	Fate of 3 eggs unknown	-----
17	U	5	3	2	06-05-76	*1	1	04-28-76	Success	-----
18	U	5	5	-	05-28-76	*1	1	04-28-76	Success	1975
22	4	3	1	2	06-19-76	-	-	-----	Success	-----

TOTAL BOXES IN AREA - 22

*Adult Kestrels caught in nest area by bal-chatri trap.

AREA CO-ORDINATORS - Don and Sheila Fowler

TABLE # 9 Cont. 1976 KESTREL NEST BOX RESULTS - AREA C - St. Thomas, East
 BOX NO. USED NO. EGGS NO. YOUNG M F DATE BANDED ADULTS M F DATE BANDED FATE OF NESTING PREVIOUS YEARS USED
 BY KESTRELS

1	U	3	1	2	06-08-76	-	-	-	-	Success	----
5	U	4	3	1	06-08-76	1	-	1	06-01-76	Success	----
9	U	5	2	3	06-01-76	-	-	-	-----	Success	----
11	U	5	3	2	06-01-76	-	-	-	-----	Success	1975
12	U	U	U	U	-----	-	-	-	-----	Young had left by 05-29-76	----
13	U	4	U	2	06-01-76	1	-	1	06-01-76	Success	----
17	U	5	4	1	06-13-76	-	-	-	-----	Success	----
19	U	4	4	-	06-01-76	-	-	-	-----	Success	----
21*	U	1	-	1	06-01-76	-	-	-	-----	Partial success	----
23	U	3	2	1	06-01-76	-	-	-	-----	Success	----

TOTAL BOXES IN AREA - 22

*-Other young may have left nest.

AREA CO-ORDINATOR - Bob Spicer

TABLE # 9 Cont. 1976 KESTREL NEST BOX RESULTS - AREA D - Port Stanley, West
 BOX NO. USED NO. EGGS NO. YOUNG M F DATE BANDED ADULTS M F DATE BANDED FATE OF NESTING PREVIOUS YEARS USED
 BY KESTRELS

4	-	5	-	5	06-14-76	-	-	-	-----	Success	----
7	-	2	-	2	06-14-76	-	-	-	-----	Success	1975
10	-	3	2	1	06-07-76	-	-	-	-----	Success	----
11	-	5	1	4	06-14-76	-	-	-	-----	Success	----

TOTAL BOXES IN AREA - 16

AREA CO-ORDINATOR - Kevin Ferguson

TABLE #10 FOREIGN RECOVERIES, FOREIGN RETRAPS, RETURNS & REPEATS

Numbers used under the heading "KEY" signify - 00-found dead; 01-shot;

03-caught due to injury; 04-caught by devices to trap animals not birds; 13-caught due to striking stationary object; 14-caught due to striking or being struck by motor vehicle; 21-bird caught or found dead in building; 28-caught by hand; 45-found dead or injured on highway; 89-previously banded bird trapped and released during banding operations in different 10' block than where previously banded.

(1) Foreign Recoveries

SPECIES	BAND NO.	AGE KEY	SEX	DATE BANNED DATE RECOVERED	WHERE BANNED LOCATION RECOVERED
Red-tailed Hawk	617-21866	HY 01	U	12-21-75 01-02-76	Hawk Cliff, Ontario Nr. Seikirk, Ont. (425-0795)
	877-25414	HY 14	U	11-14-75 11-11-76	Hawk Cliff, Ontario Nr. Cakville, Ont. (432-0794)
	877-25124	HY 04	U	11-14-75 11-09-76	Hawk Cliff, Ontario Nr. Lewisburg, Pa. (405-0765)
	877-02123	HY 03	U	09-05-72 05-01-76	Hawk Cliff, Ontario Nr. Woodville, Ont. (442-0785)
	877-08327	L 14	U	05-23-73 01-21-76	Nr. St. Thomas, Ont. (424-0811) Nr. Koppel, Pa. (405-0801)
	762-39844	HY 00	M	10-01-76 11-11-76	Hawk Cliff, Ontario Nr. St. Mark's, Fla. (301-0841)
Sharp-shinned Hawk	833-17975	HY 00	F	09-15-76 12-05-76	Hawk Cliff, Ontario Miami, Fla. (254-0881)
	833-14532	SY 13	F	09-13-75 03-11-76	Hawk Cliff, Ontario Nr. Ellison Bay, Wisc. (451-0870)
	762-39087	HY 13	M	09-20-75 10-04-76	Hawk Cliff, Ontario Erlenheim, Ont. (422-0815)

Foreign Recoveries Cont.

Sharp-shinned Hawk	833-14637	HY 00	09-09-75 06-04-76	F	Hawk Cliff, Ontario Aberdeen Adtl Twp, Ont. (463-0835)
	762-33623	HY 00	09-14-75 05-04-76	M	Hawk Cliff, Ontario Nr. Webster, N.Y. (431-0772)
	833-17131	HY 00	09-22-75 05-03-76	F	Hawk Cliff, Ontario Silver Creek, N.Y. (423-0791)
	833-17315	HY 13	09-22-75 04-24-76	F	Hawk Cliff, Ontario Nr. Lake LaMotte, Que. (482-0780)
	833-18007	HY 13	10-03-75 02-15-76	F	Hawk Cliff, Ontario Nr. Newark, Ohio (400-0821)
Cooper's Hawk	745-00179	HY 13	12-23-75 04-27-76	U	Hawk Cliff, Ontario Kingston, Ont. (441-0762)
	695-01065	HY 01	10-04-72 04-10-76	F	Hawk Cliff, Ontario Port Carling, Ont. (450-0793)
	695-01929	HY 04	09-27-75 02-13-76	F	Hawk Cliff, Ontario Nr. Farmersville, Ohio (394-0842)
Marsh Hawk	614-01088	HY 01	09-17-76 12-21-76	M	Hawk Cliff, Ontario Nr. McMinnville, Tn. (353-0854)
	695-01100	HY 01	10-25-72 04-30-76	F	Hawk Cliff, Ontario Nr. Grafton, Ont. (440-0780)
Am. Kestrel	833-17721	HY 00	10-17-75 01-18-76	F	Hawk Cliff, Ontario Pt. Payne, Ala. (342-0854)
	833-14398	AHY 45	04-06-75 09-07-76	F	Nr. Appin, Ont. S. Appin, Ont. (424-0813)
	1143-52636	L 21	06-02-76 09----76	M	Hawk Cliff, Ontario St. Dutton, Ont. (423-0813)
	1143-53339	U 00	09-12-76 12-23-76	M	St. Thomas, Ont. (424-0811) Marion, Ohio (403-0830)

Foreign Recoveries Cont.

Am. Kestrel	1013-53057	HY	M	09-14-74 11-21-76	Hawk Cliff, Ontario Baker, Fla. (304-0864)
	1143-52623	L	F	05-28-76 08-13-76	Hawk Cliff, Ontario E. St. Thomas, Ont. (424-0810)
	1143-53243	L	M	06-05-76 08-10-76	Mr. Gianworth, Ont. (425-0811) Mr. Harley, Ont. (430-0802)
Saw-whet Owl	614-00925	U	U	10-29-75 04-10-76	Hawk Cliff, Ontario Sarasak Twp. Ont. (443-0805)
		45			
(2) Foreign Retraps					
Sharp-shinned Hawk	1013-45881	HY	M	10-15-73 05-07-76	Hawk Cliff, Ontario Niagara Falls, Ont. (438-0798)
	782-21956	AHY	M	10-17-76 10-17-76	Hawk Cliff, Ontario Merlin, Ont. (421-0821)
	762-39432	HY	M	09-19-76 09-20-76	Hawk Cliff, Ontario Mr. Wheatley, Ont. (420-0882)
	833-17334	HY	F	09-22-75 02-17-76	Hawk Cliff, Ontario Mr. Quincy, Fla. (303-0842)
	833-14876	HY	F	09-19-75 09-17-76	Hawk Cliff, Ontario Mr. Arnold, Mn. (465-0920)
	782-21338	HY	M	09-21-76 09-23-76	Hawk Cliff, Ontario Mr. Wheatley, Ont. (420-0822)
	833-17619	HY	F	09-19-76 09-22-76	Hawk Cliff, Ontario Mr. Wheatley, Ont. (420-0822)
	833-18246	HY	F	09-19-76 09-22-76	Hawk Cliff, Ontario Mr. Wheatley, Ont. (420-0822)
		89			

Foreign Retraps Cont.

Am. Kestrel	1143-52653	L	F	06-07-76 12-30-76	Hawk Cliff, Ontario Nr. Ft. Payne, Ala. (342-0854)
	1143-53551	AHY	F	09-19-76 Fall--76	Hawk Cliff, Ontario Nr. Mayslick, Ky. (383-0834)
	963-91178	HY	M	07-07-76 10-17-76	Nr. Lively, Ontario Hawk Cliff, Ont. (424-0810)
Cooper's Hawk	614-00973	AHY	M	10-16-76 10-17-76	Hawk Cliff, Ontario Merlin, Ont. (421-0821)
Red-tailed Hawk	877-03322	L	U	06-10-68 11-13-75	Nr. Hillman, Mich. Hawk Cliff, Ont. (424-0810)
	877-25357	HY	U	10-30-75 01-10-76	Hawk Cliff, Ontario Redford, Mich. (422-0831)
	877-25357	HY	U	10-30-75 03-05-76	Hawk Cliff, Ontario Westland, Mich. (422-0832)
(3) Returns					
Am. Kestrel	1013-53315	L	U	07-02-75 01-01-76	Nr. Sparta, Ontario Nr. St. Thomas, Ont. (424-0810)
	653-24274	AHY	F	06-05-75 03-28-76	Nr. Sparta, Ontario Nr. St. Thomas, Ont. (424-0810)

(4) Repeats

There were 27 station repeats in 1976.

TABLE #11 Legend of English and scientific names and abbreviations

TV	Turkey Vulture	<i>Cathartes aura</i>
GOS	Goshawk	<i>Accipiter gentilis</i>
SSH	Sharp-shinned Hawk	<i>Accipiter striatus</i>
CH	Cooper's Hawk	<i>Accipiter cooperii</i>
RT	Red-tailed Hawk	<i>Buteo jamaicensis</i>
RS	Red-shouldered Hawk	<i>Buteo lineatus</i>
BW	Broad-winged Hawk	<i>Buteo platypterus</i>
Sw	Swainson's Hawk	<i>Buteo swainsoni</i>
RL	Rough-legged Hawk	<i>Buteo lagopus</i>
GE	Golden Eagle	<i>Aquila chrysaetos</i>
BE	Bald Eagle	<i>Haliaeetus leucocephalus</i>
MH	Marsh Hawk	<i>Circus cyaneus</i>
OS	Osprey	<i>Pandion haliaetus</i>
GYR	Gyr Falcon	<i>Falco rusticolus</i>
PF	Peregrine Falcon	<i>Falco peregrinus</i>
M	Merlin	<i>Falco columbarius</i>
AK	American Kestrel	<i>Falco sparverius</i>
BNO	Barn Owl	<i>Tyto alba</i>
SCO	Screech Owl	<i>Otus asio</i>
GHO	Great Horned Owl	<i>Bubo virginianus</i>
SNO	Snowy Owl	<i>Nyctea scandiaca</i>
HO	Hawk Owl	<i>Surnia ulula</i>
LEO	Long-eared Owl	<i>Asio otus</i>
SWO	Saw-whet Owl	<i>Aegolius acadica</i>
N.Shrike	Northern Shrike	<i>Lanius excubitor</i>
L.Shrike	Loggerhead Shrike	<i>Lanius ludovicianus</i>

ONTARIO BIRD BANDING

INSTRUCTIONS TO AUTHORS

Although emphasis is placed on papers of interest to banders, articles or short notes on any aspect of ornithology are welcomed. Write with precision, clarity and economy; use the active voice. Refer to your list of literature cited by author's name and year of publication, adding page number only when necessary and from a long paper or book. Manuscripts must be typewritten with new black carbon ribbon, with a maximum of 66 letter spaces to the line and double-spaced. Tables, and figures should be prepared on separate sheets, with the number in pencil on the back. Bear in mind that if a table is too large it will have to be reduced in size so much that it may become unreadable. Do not rule tables. When either is equally clear a figure or graph is preferable to a table. If much detail must be included in a table use a smaller size of type. Type the titles of figures, charts, graphs and illustrations on separate pieces paper. Photographs must have good contrast for reproduction.

Contributors receive 15 copies or separates of their articles free.

Ontario Bird Banding is published by the Ontario Bird Banding Association. The annual membership dues of \$6.00 include a subscription to Ontario Bird Banding. Single copies are available at \$1.50 each from the Membership Secretary.

Authorized as Second Class Mail by
the Post Office Department, Ottawa,
and for payment of postage in cash.

ONTARIO BIRD BANDING ASSOCIATION

OFFICERS

PRESIDENT Dr. David Brewer, R.R.1,
Puslinch, Ontario, NOB 2J0

VICE-PRESIDENTS J.B. Miles, Box 248
Cannington, Ontario
David Broughton, 4 Heddington
Ave., Toronto

SECRETARY- MEMBERSHIP Harold Richards, 37 Killdeer
Cresc., Toronto, Ontario
M4G 2W7

SECRETARY- RECORDING Ralph Cartar, 2 Leander
Court, Toronto, Ontario
M4B 2W1

TREASURER Warren Russell, 2575 St.
Clair Ave.E, Toronto
Ontario, M4B 1M2

EDITOR Dr. D.A. MacLulich, 26
Stewart St., Strathroy,
Ontario. N7G 3K8

OTHER OFFICERS Dr. David Hussell, Long Pt.
Bird Observatory, Box 160
Port Rowan, Ont. NOE 1M0
Dr, Erica Dunn, Long Point
Bird Observatory, Box 160
Port Rowan, Ont. NOE 1M0

APPOINTEES TO BIRD BANDING STATIONS

Long Point Bird Observatory
- John Roberts
Hawk Cliff - Marshall Field
Point Pelee - Dennis Rupert

ANNUAL BANDING REPORT

EDITOR -
Dr. A.D Brewer