

INTERIM REPORTSPRING WARBLER MIGRATION AT TORONTO, 1990

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This interim report has been prepared for those who participated in the survey in 1990 so that they can see the results of their work. It is intended that when time allows further analyses of the results will be made and a more complete report will be prepared for publication in the 1990 Toronto Region Bird Report.

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This study is a project of the Toronto Ornithological Club. The purpose is to show the patterns of the spring warbler migration at Toronto, to compare the relative abundance of each species studied and to document the fluctuations in the number of warblers seen from year to year.

This was the nineteenth year in which the study was carried out in the same manner. The study was begun in 1970 and continued each year with the exception of 1985 and 1986. The first four years were published in the Ontario Field Biologist (see Fairfield, 1971, 1973, 1974). The results from 1987 on are to be published in the Toronto Region Bird Report.

METHODS AND STUDY AREAS

The 21 most common species of warbler were chosen as indicators of the migration through Toronto. For additional information and comparison three other species which migrate through Toronto at the same time as the warblers were also counted. They were, Swainson's Thrush, Scarlet Tanager, and Rose-breasted Grosbeak.

The data was collected by several observers making daily counts of a number of study areas during the month of May plus the first five days of June. In 1990 there were seven study areas within the boundaries of Metropolitan Toronto plus one area outside Metro Toronto.

The Toronto study areas are mostly wooded ravines and hillsides surrounded by built-up areas of the city. The areas are small enough that they can be covered in 30 to 60 minutes. Their positions within the heavily built-up residential and industrial areas discourages those species that would normally nest in this

part of Ontario from setting up territories. Although this results in much lower counts than the richer habitats away from the city it also avoids the problem of sorting out the resident birds from the migrants.

Table 1 lists the study areas, the number of visits made to each of them in 1989, and the name of the observers responsible for each area.

All the observers are competent, experienced birders capable of identifying all the species by voice and in all plumages.

TABLE 1

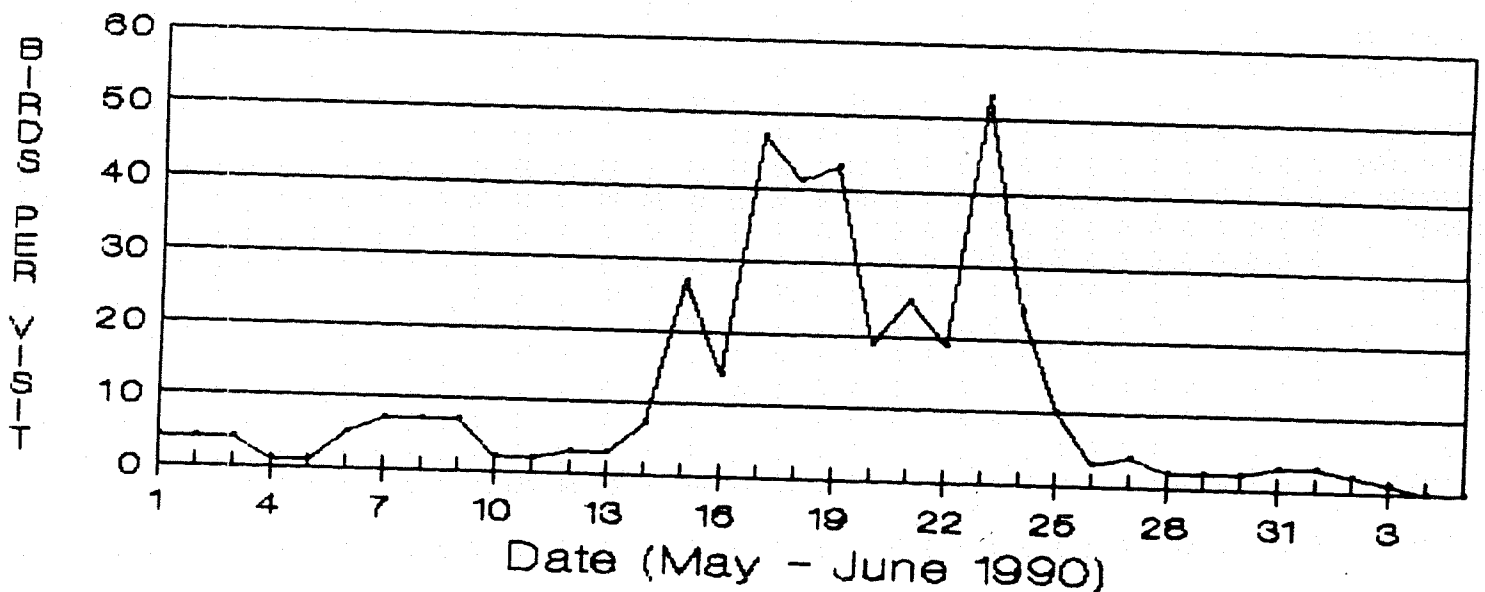
Study Areas	Number of Visits	Observer
<u>Metropolitan Toronto</u>		
Cluny Drive (Rosedale Ravine)	25	Ronald Tasker
Moore Park Ravine	33	Harry Kerr and George Fairfield
Mount Pleasant Cemetery	35	Harry Kerr
Pine Hills Cemetery	26	Robert Shillabeer
Rosedale Valley	34	Donald Peuramaki
Unwin Avenue	33	Donald Peuramaki
Wychwood Park	35	Hugh Currie & Herb Elliott
<u>Outside Metropolitan Toronto</u>		
Erindale College Woods	27	Xavier & Luc Fazio
Penetanguishene	19	John Sherrin

THE MIGRATION PATTERN

Graph 1 shows the average number of warblers per visit for each day from May 1 to June 5, 1990. The visits per day varied from 4 to 7 and averaged 6.

A preliminary look at the chart indicates that the main difference with previous years is the good numbers of warblers that came through early in May. In most years we see very few warblers until about the 13th. Other than that the chart follows the pattern of most years with the great bulk of the birds coming through between May 13 and 26.

1990 WARBLER STUDY 7 METRO AREAS COMBINED



INDIVIDUAL SPECIES COUNTS

Table 2 sets out all of the observations within Metropolitan Toronto of the 24 species studied. The totals for each day and each species are given.

In addition the average number of warblers per visit per day and for the five-week study period are included. This "Warblers per Visit" data is much more meaningful than the simple total of the birds observed. It eliminates the error which would result from a different number of observers going out on any given day. Since very few of the participants can visit their plots every day for five weeks this adjustment is necessary.

TABLE 2

YEAR 1990

7 METRO PLOTS COMBINED

SPECIES	MAY														JUNE					TOT																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5				
Black & White	1	2	0	1	0	11	13	12	6	0	3	2	1	4	8	2	15	4	8	3	6	5	8	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	122	
Tennessee	0	1	1	0	0	0	0	0	1	1	0	1	0	1	11	2	26	22	28	12	9	9	28	16	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	175
Yashville	3	6	9	3	2	5	6	8	3	1	1	3	2	6	11	1	8	8	13	3	4	5	14	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	129	
Yellow	0	0	0	0	0	1	5	4	3	1	0	1	1	1	5	5	21	11	14	5	6	1	3	1	2	2	1	0	0	0	1	2	1	3	0	0	0	0	101		
Magnolia	0	0	0	0	0	0	0	3	3	1	2	2	3	5	14	1	21	32	33	17	30	18	61	24	13	3	2	2	0	0	1	3	1	0	0	0	0	0	295		
Cape May	0	0	0	0	0	0	0	0	1	1	0	0	1	1	5	3	5	4	3	2	2	0	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40		
Black-thr. Blue	1	0	0	0	0	1	2	4	1	0	0	0	1	2	16	3	25	22	14	8	15	13	30	16	0	0	0	0	0	1	0	0	0	0	0	0	0	0	175		
Yellow-rumped	9	13	17	5	1	6	1	0	9	1	2	0	0	4	27	9	27	20	21	9	9	7	13	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	221		
Black-thr. Green	0	0	1	1	0	6	5	2	1	0	0	1	1	3	11	4	12	11	14	3	10	8	36	14	4	0	1	0	1	0	0	1	1	0	0	0	0	0	152		
Blackburnian	0	0	0	0	0	0	2	4	4	1	0	0	1	6	6	2	20	20	14	2	7	10	18	6	2	1	2	0	1	0	0	1	1	0	0	0	0	131			
Chestnut-sided	2	0	2	0	0	1	2	1	1	2	1	1	2	2	13	4	39	35	30	9	19	17	28	12	7	3	2	1	0	0	0	0	0	0	0	0	0	236			
Bay-breasted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	25	20	12	14	13	7	31	16	4	1	0	0	0	0	0	0	0	0	1	0	0	156			
Blackpoll	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	3	3	4	4	9	0	3	2	3	1	3	1	0	0	0	0	0	42			
Palm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13			
Ovenbird	0	0	0	0	1	3	5	8	4	1	1	1	2	9	4	0	25	11	9	5	10	5	16	2	3	1	1	1	0	0	1	0	0	0	0	1	130				
N. Water Thrush	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	2	1	0	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	11			
Mourning	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	2	2	1	1	0	0	0	1	1	1	0	0	0	0	0	13				
Yellow-throat	0	0	0	0	0	0	0	1	3	1	2	0	1	2	5	2	9	10	7	3	5	2	4	4	5	2	4	1	1	1	1	0	3	2	0	0	81				
Wilson's	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	1	3	0	10	0	0	0	0	0	1	0	2	1	0	0	0	0	26				
Canada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	4	1	3	2	5	6	1	1	2	2	1	1	2	1	0	0	0	0	41				
Am. Redstart	0	0	0	0	0	0	0	1	0	0	0	0	0	3	7	1	38	41	28	9	20	16	50	22	17	7	7	2	4	5	6	6	5	1	1	0	297				
TOTAL VISITS	4	6	7	7	5	7	6	7	6	5	7	4	6	7	6	3	7	7	6	6	7	7	7	7	7	7	7	6	7	6	7	6	5	6	5	5	221				
DAILY TOTALS:	17	22	30	10	4	34	41	48	41	11	12	12	16	49	159	41	329	284	258	111	176	132	369	166	73	21	27	12	13	11	19	18	12	7	1	1	2,587				
BIRDS PER VISIT	4	4	4	1	1	5	7	7	7	2	2	3	3	7	27	14	47	41	43	19	25	19	53	24	10	3	4	2	2	2	3	3	2	1	0	0	12				
Rounded to the closest whole number																																									
Swainson's Thrush	0	1	1	1	0	2	0	2	2	2	1	1	1	1	12	16	31	13	25	19	29	12	46	13	21	5	2	0	1	0	0	0	1	0	0	0	261				
Scarlet Tanager	0	0	0	0	0	0	0	2	0	0	0	0	1	1	9	3	25	9	8	5	2	0	5	3	0	1	0	0	0	0	0	0	0	0	0	0	0	74			
Rose-br. Grosbeak	0	0	0	1	0	1	2	18	21	4	0	1	1	7	11	15	70	29	16	13	13	13	14	19	0	4	0	0	0	4	5	3	0	0	0	0	285				

TABLE 3AVERAGE BIRDS PER VISIT, 1970 TO 1989

<u>Year</u>	<u>No. of Visits</u>	<u>No. of Birds Counted</u>	<u>Average No. of Birds per Visit</u>
1970	117	1413	12.1
1971	99	1248	12.6
1972	249	2622	10.5
1973	269	3071	11.4
1974	303	3174	10.5
1975	301	2921	9.7
1976	243	4466	18.4
1977	271	3007	11.1
1978	242	2321	9.6
1979	201	2826	14.1
1980	203	2340	11.5
1981	237	1436	6.1
1982	216	1721	8.0
1983	150	1051	7.0
1984	108	864	8.0
1985	No count taken.		-
1986	No count taken.		-
1987	187	1313	7.0
1988	198	1537	7.7
1989	149	1013	6.8
1990	221	2587	11.7

WARBLER COUNTS OVER A 20-YEAR PERIOD

Table 3 gives the figures for the 19 years on which we carried out the survey.

Variations from year to year can be expected because on some years more of the migrating warblers pass over Toronto without landing than on other years. After all, we are only counting grounded birds.

Another variable is introduced by the fact that we do not use the same mix of plots each year. Invariably some participants have to drop out and others decide to join. Some of the new people will survey previously used plots but many must opt for a new area closer to their home or work place.

1990 gave us the highest counts since 1979 and was well above the counts on the previous seven surveys. None the less the trend over the years has been downward.

Whether this apparent decrease results from the destruction of the birds' winter habitat in Central and South America, the clear-cutting in northern Canada or some other factor we cannot tell without much more research.

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