Port Weller West Study Area-Kayo J. Roy

Port Weller West Pier Migration Study May 2013

J. E. Black, June 2013.

1-Introduction

Each morning in May, from 1993 to1997, observers recorded the number of individual birds observed (primarily passerine migrants) on the Port Weller West Pier north of the Coast Guard station and on the Port Weller East Pier beside a small “Island”.

The “1993-1997 Study,” as it was called, was designed to be repeatable so that changes, if any, occurring in the future could be detected. This year (2013) seemed appropriate for such an undertaking since 20 years is the period between successive Ontario Bird Atlases. Unfortunately, the habitat near the Island on the East Pier has changed dramatically from its condition in the years 1993 to 1997. No comparison of the birds of the first study recorded there with the Island birds of today would be meaningful. This May, therefore, we systematically counted birds only on the West Pier area north of the Coast Guard Station. Counts were, however, conducted informally in Malcomson Woods and at the Island.

In this report, results from the 2013 study are first described. Following this description, a comparison is drawn between the total number of individuals for each species seen in May 2013 and the total number of individuals for each species seen in each of the years 1993 to 1997. The emphasis of this comparison is on identifying species seen in 2013 whose totals lie above or below the range of May totals observed in the 1993 -1997 Study. The comparison is followed by a short discussion of the main, and sometimes unexpected, findings, namely, the increases in numbers of species resident in Niagara including Gray Catbirds, Yellow Warblers and House Wrens and the decreases in the transient species Yellow-rumped Warblers and House Finches. The report concludes with a recommendation that the study be repeated in 2014.

Yellow Warbler-Sandra and Frank Horvath

I was delighted by the number of observers willing to donate their time and expertise to the project this year. Observers were: Brian Ahara, John Black, Peter BonEnfant, Lynda Goodridge, Jean Hampson, Bob Highcock, Carol Horvat, Marcie Jacklin, Kayo Roy, Dan Salisbury, Tim Seburn, Maggie Smiley, John Stevens and Katherine Stoltz. Note that John Black, Marcie Jacklin, Kayo Roy and Maggie Smiley participated in the 1993-1997 study.

2-Results of the May 2013 Study

A description of the count protocol is provided in Appendix 1. The Port Weller Checklist used by the counters in this study, and in the 1993-1997 Study, is shown in Appendix 2 and the data entry checklist used by the 2013 compiler is shown in Appendix 3.

The focus of this study is passerine migrants. Some abundant passerines not counted were American Robins, Blue Jays, American Crows, Black-capped Chickadees, European Starlings, Northern Cardinals, Red-winged Blackbirds, Common Grackles and House Sparrows. These are birds that breed in the Niagara Region and are very common here.

The only non-passerines counted were Ruby-throated Hummingbirds, Red-bellied and Red-headed Woodpeckers, Yellow-bellied Sapsuckers, Cliff Swallows, Purple Martins and cuckoos.

Appendix 4 contains a discussion of the West Pier study area and the changes that have occurred in the habitat since the 1993-1997 Study.

The raw observational data for Port Weller West are presented in Table 1. Note that inclement weather was not a problem, and the count, as it did in the 1993 to 1997 Study, took place on all 31 days in May.

A discussion of the 1993-1997 Study results is presented in the Chapter entitled “Monitoring Migrants on the Port Weller Piers in May 1993-1997” in *Niagara Birds* (Black and Roy (2010)) and in Black (1997). See also Black (1993...1997).

A summary of the birds counted in 1993 on the West Pier is presented in Appendix 5. Detailed results for the Port Weller West Pier Study from 1993 to1997 are presented in Table A5.1.

Daily counter notes from 2013, along with information on species of birds not included in the count, are presented in Appendix 6. Perhaps the most noteworthy sighting was that of a single Fish Crow on May 5. Four Wild Turkeys were present in the count area in the early part of May. A single Coyote was observed on May 28. A single Great Horned Owl was observed on several occasions.

Results from informal observations in Malcomson Woods (located south of the West Pier) are described in Appendix 7, and informal observations from beside the “Island” on the Port Weller East Pier are described in Appendix 8.

An unusual black swallow was observed just outside the study area by the Coast Guard boat dock. The “black swallow” is described in Appendix 9.

3-Comparison of the total number of individuals for each species seen in May 2013 with the total number of individuals for each species seen in each of the years 1993 to 1997

Results of the comparison are shown in Table 2. The total number (totals) of individuals for each species are grouped according to whether the 2013 total was above, in, or below the range of annual totals found in the 1993-1997 Study.

There are 24 instances of the 2013 total exceeding all totals for that species in the 1993-1997 Study and eight instances of the 2013 total being less than any of the totals in the 1993-1997 Study.

In the two bottom rows of the table we see that the total of all birds recorded in the 2013 count (2323) lies within the range of totals recorded in the 1993-1997 Study (1686 to 3459). We also note that the total number (74) of all species recorded in the 2013 count lies within the range of species seen between 1993 and 1997 (60 to 77).

For purposes of simplifying the discussion of these totals, the species of Table 2 are split into species that are resident on the West Pier (3-1) and species that were probably transient on the West Pier during migration (3-2).

3-1 Comparison: Species resident on the West Pier

The results for Red-bellied Woodpecker, Eastern Kingbird, Great-crested Flycatcher, House Wren, Carolina Wren, Gray Catbird, Brown Thrasher, Warbling Vireo, Yellow Warbler, Brown-headed Cowbird and American Goldfinch are shown in Table 3.

House Wren, Gray Catbird, Yellow Warbler, Brown-headed Cowbird and American Goldfinch were very numerous. The large numbers of these birds made counting difficult and time consuming. To count them accurately would have interfered with the time required for studying the migrants. It was decided early in the count period, therefore, simply to note if these species were present (P).

Note that 8 of the 10 species tabulated here have totals exceeding those found in the 1993-1997 Study. Below we distinguish between (3-1a) birds whose large totals result primarily from the fact that they breed on or near the study area and were seen on many days and (3-1b) species whose large totals result primarily from the fact that they were present on the West Pier in large numbers.

3-1a Species whose large totals result from the fact that they were seen and/or heard on many days and reside on the West Pier

Red-bellied Woodpecker: one or two pairs of this species breed on the West Pier. It is not known if they breed in the study area or immediately south of it, but one or two were heard and/or seen on many days. This puts the total well above the only record in the period 1993 to 1997 of four birds in 1997.

Great-crested Flycatcher: one or more of these birds were seen and/or heard on the West Pier starting on May 20, possibly, a pair nested there.

Brown Thrasher: one or two pairs of these birds breed on the West Pier. It is not known if they are in the study area or south of it, but one or two birds were heard and/or seen on many days. This puts the total well above the only record in the period 1993-1997 of 10 birds in 1995.

Carolina Wren: one or two of these birds were seen or heard in the study area on many days. It is not known if they breed there or in the area south of it. This puts the total for May 2013 well above the numbers in 1993-1997.

Warbling Vireo: three or four pairs of these birds breed in the study area and were on territory by mid-May in 2013. It would seem that there are more birds breeding on the West Pier than in the 1993-1997 count periods.

Common Yellowthroat: one or more of these birds breed in the study area. The total is slightly higher than those totals obtained in the 1993-1997 study.

3-1b Species seen in very large numbers on the West Pier

House Wren: a maximum of 13 birds were seen on May 31. These birds were abundant during the count period. Their number, even allowing for the fact they were not counted on many days, is still substantially greater than those counted in the 1993-1997 Study.

Gray Catbird: a few of these birds were present until May 14 when the numbers began to rise. On May 27 a maximum number of 37 individuals were seen. Allowing for the fact that they were not counted on three days, we see that the total is substantially greater than those counted in the 1993-1997 Study.

Gray Catbird-Frank and Sandra Horvath

Yellow Warbler: substantially more birds were observed in 2013 than were observed in the 1993-1997 Study, keeping in mind that they were not counted on 14 days.

Baltimore Oriole: substantially more birds were observed in 2013 than in any year of the 1993-1997 Study.

American Goldfinch: these were present in varying numbers throughout the count period. They are not breeding in May, making it difficult to tell which individuals are transient and which (if any) are going to breed. Given that on 13 days they were not counted, it is possible that their numbers would exceed those counted between 1993 and 1997.

The daily total numbers of individuals for the species listed above are consistent with their remaining to breed on the West Piers (See Table 1). There is a small drop in numbers once the birds arrive in May. Some careful counting would be required in future studies to determine which, if any, of these birds are transient in May and would not remain to breed on the West Pier.

3-1c Species with numbers comparable to those observed in the 1993-1997 Study.

Eastern Kingbird: the 2013 total is inside the 1993-1997 range of totals.

Brown-headed Cowbird: this species was not counted on 13 days. It is assumed that the total, had these birds been counted on all days, would lie within the range of values obtained in the 1993-1997 Study.

3-2 Comparison: Species transient on the West Pier.

Results for these species are shown in Table 4. A few of the species may breed on the West Pier, but during our visits we saw no definite evidence that this was the case.

To facilitate comparison, the species in Table 4 are arranged from top to bottom of the table, as follows:

Group 1: Ten species on the Port Weller Checklist (Appendix 2) were seen on the East Pier in the 1993-1997 Study but not on the West Pier in the 1993-1997 Study or in 2013.

Group 2: Twenty-two species on the Port Weller Checklist were seen on the West Pier in the 1993-1997 Study but not on the West Pier in 2013.

In considering this group we note that the 2013 totals seen for only two species are outside and below the range of totals encountered in the 1993-1997 study. They are Swamp Sparrow and Lincoln's Sparrow.

Group 3: Five species were seen on the West Pier in 2013, the totals of which fall below any of those encountered in the 1993-1997 Study.

The species are Yellow-rumped Warbler, Cape May Warbler, Black-throated Blue Warbler, Bay-breasted Warbler and House Finch. The most interesting results of the 2013 study are the very low totals of Yellow-rumped Warblers and House Finches, both substantially below any totals recorded in the 1993-1997 Study.

House Finch-Sandra and Frank Horvath

Group 4: Forty-two species were seen on the West Pier in 2013 in numbers that lie within the range of totals encountered in the 1993-1997 Study. With this group, note that the totals of species encountered in 2013 range from those that are below the mean and median totals of 1993-1997 to those that are above the mean and median of 1993-1997 (See Table 4a). If a similar study were carried out in 2014, some of these departures from the mean and median might be replicated.

Group 5: Fourteen species were seen on the West Pier in 2013, the totals of which exceeded the range of totals encountered in the 1993-1997 Study.

Two species stand out in this group; Tennessee Warbler and Blackpoll Warbler. The totals for other species counted differ by at most three individuals for those counted between 1993 and 1997. Nevertheless, some of these small differences may be repeated in 2014.

Note that at the bottom of Table 4 we also examine the combined Alder/Willow Flycatchers and Empidonax Species. This is perhaps a more appropriate set of totals for this sub-group since not all counters can discriminate among the Empidonax species. We see that the combined totals for 2013 lie within the range of 1993-1997 totals even though the Alder/Willow total alone lies slightly above the 1993-1997 value.

The last four rows of the table depict total individuals and species. If we exclude the Yellow-rumped Warblers and House Finches from the totals, we see that the transient non-residents are, in 2013, present in numbers that are consistent with those of the 1993-1997 Study. With the exclusion of Yellow-rumped Warblers and House Finches, there is, therefore, no indication that the group of transients in migration are passing through our area in numbers reduced or increased from those found in the 1993-1997 Study.

4-Summary and Discussion

Table 5 shows the birds counted in 2013 whose totals lie outside the range of totals found in the 1993-1997 Study. These instances provide the strongest evidence of changes since the 1993-1997 study was carried out. These changes may vanish in 2014 and subsequent years; however a few comments are in order at this time.

Red-bellied Woodpecker: The numbers of these birds found in Niagara have increased substantially in the years from the first Ontario Breeding Bird Atlas (Bavrlic 2007) to the present.

Cliff Swallow: The numbers of these birds in Niagara have increased substantially in the years from the first atlas (1981-1985) to the present (Cadman 2007). There are Cliff Swallows nesting in the buildings at Lock 2 not far north of the West Pier. A count of these birds in the canal itself during May would yield a very large number, but would also be difficult and time consuming. Birds noted by the counters in this study were only those seen over the count area.

House Wren, Gray Catbird, Yellow Warbler, Baltimore Oriole and American Goldfinch: These birds appear to be resident on the West Pier. An increase in the totals is perhaps a result of the clearing of land on the west side of the West Pier and other habitat changes since 1997 (See Appendix 4.)

Yellow-rumped Warbler: This is the first striking result of this year's study. Totals of Yellow-rumped Warblers counted between 1993 and 1997 range from 226 individuals in 1995 to 1401 individuals in 1996. Only 139 birds in total were seen in the 2013 Study!

House Finch: This is the second most striking result of this year's study. A total of only five birds were observed on the West Pier in 2013 compared with as many as 18 birds on a single day in the years 1993 to 1997 and a maximum total in May 1996 of 237 birds. The daily data from the 1993 - 1997 Study are shown in Table 6. Possible origins of this decline are: reduced numbers of House Finches in Niagara in 2013 compared with those in the 1993 to 1997 period (Leckie 2007) and/or a change in House Finch spring movement patterns. (It is known that some House Finches in the north eastern part of the U.S and on the Great Lakes move south for the winter months http://www.allaboutbirds.org.) . The birds were certainly not breeding on the West Pier in any numbers between 1993 and 1997. They seemed to be in migration, along with Blue Jays and

Grackles, and they were observed drifting north and/or south along the West Pier on many days during the 1993-1997 study.

Warblers: The data on warblers are presented in Table 7. It is noteworthy that more species of warbler (27) were seen in 2013 than in any of the years from 1993 to1997 (maximum 24).

There are four warblers for which the totals in May of 2013 lie below the totals in the 1993-1997 Study. They are Cape May Warbler, Bay-breasted Warbler, Black-throated Blue Warbler and Yellow-rumped Warbler. All are spring transients in Niagara.

Of the eight warblers whose 2013 total lies above the 1993-1997 range of totals, Yellow Warbler, Mourning Warbler and Common Yellowthroat are uncommon to common residents in Niagara, Cerulean Warbler and Canada Warbler are extremely rare residents in Niagara, while Tennessee Warbler, Orange-crowned Warbler and Blackpoll Warbler are spring transients in Niagara.

Blackpoll Warbler-Sandra and Frank Horvath

In the case of the transient species of warbler, the only instance of a large change in total numbers from 1993-97 to 2013, and therefore perhaps one indicative of a trend, is the change in the total of Yellow-rumped Warblers!

Yellow-rumped Warbler Frank and Sandra Horvath

The other warblers exhibit only small changes, and from past experience we know that large numbers of warblers can occur on a single day. May 24, 1993 was just such a day. Observers counted 30 Bay-breasted Warblers, 35 Magnolia Warblers, 21 Cape May Warblers, 25 Chestnut–sided Warblers and 25 Yellow-rumped Warblers!

5-Conclusions

We observed a large increase in the numbers of individuals of many of the species resident on the West Pier.

For transient species not resident on the West Pier (excluding House Finches and Yellow-rumped Warblers) the total numbers of birds and the numbers of species are similar to those obtained in the 1993-1997 Study. We did, however, see more warbler species than were seen in any of the years of the 1993-1997 Study.

Two of the largest differences between individual species totals found in 2013 and in the 1993-1997 Study are Yellow-rumped Warblers (a spring transient in Niagara) and House Finches (a permanent resident and spring migrant, in Niagara).

It would be of considerable interest to repeat the study in 2014 to see which of the changes detected in 2013 persist, in particular, whether or not the total numbers of Yellow-rumped Warblers and House Finches remain well below the total numbers observed in the1993-1997 Study.

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