

## **FALL WARBLER CENSUS BADGEROW PARK, GREECE, N.Y.**

**Robert E. Marcotte**  
4533 Dewey Ave.  
Rochester, NY 14612

### **ABSTRACT**

Magnolia Warblers were the most commonly observed species during a four-year census of migrating fall warblers in Badgerow Park, Greece, N.Y. The counts were conducted from 10 Aug to 15 Oct, 1995-1998. Wilson's and Nashville warblers were found in greater numbers than expected, while Tennessee Warbler was found in fewer numbers. Overall patterns of migratory movement varied from year to year. However, each year featured a significant movement of at least three days duration during the first 10 days of September.

### **INTRODUCTION**

Everyone loves warblers except, of course, in the fall, when dense foliage, lack of song and the duller plumage of some species conspire to make these small passerines difficult to observe and identify. However, Badgerow Park in the town of Greece, a suburb of Rochester, N.Y., is a good place to observe these birds. Located on the site of a former apple orchard, about a mile inland from the south shore of Lake Ontario, the park features a fragmented habitat of small, narrow woodlots, open weedy and grassy areas, presenting numerous sunlit edges and wood margins where migrating fall warblers often congregate. Black-capped Chickadees frequently form the nucleus of roving bands of migrating warblers, vireos, kinglets and other species (Smith, 1993). The ever vocal chickadees were one of the most reliable clues that fall warblers were also present. Even so, fall warbler watching in the park can require a great deal of patience and persistence. During lulls in migratory activity, it can take hard work to find even a half-dozen birds a day. However, this helped to draw an even sharper comparison when migratory movements did occur.

## METHOD

The census was conducted on as many mornings as possible from 10 Aug to 15 Oct, 1995-1998. This range of dates no doubt meant that some species were not counted in full. Yellow-rumped Warbler, in particular, continues to be found in the park in at least modest numbers after 15 Oct.

However, the count period encompasses the bulk of the migration for the vast majority of warbler species passing through the Rochester area. The counts were conducted beginning at 8:30 a.m., and usually took from two to three hours to complete, averaging 2.5 hours, on 53 days in 1995, 62 days in 1996, 63 days in 1997 and 62 days in 1998. The same basic route was covered each day, encompassing about 27 acres, and was structured so that sunlit margins at the eastern edge of the park were visited first, where warblers often congregated for warmth and the first insect activity.

Besides listening for chickadees, the observer spished frequently to lure birds out from the dense foliage. Because of the lack of song, and the observers inability to separate some species by call notes, this was strictly a visual count.

There were inherent pitfalls in this approach. While it was fairly easy to locate warbler species that forage in the open, many of the "skulkers" were recorded in very small numbers, if at all, and were probably under-reported.

Bent (1963), for example, in his account of Mourning Warbler, notes that this species "seems rarer in the fall than it probably is, for it is very secretive, skulking through dense thickets and rank herbage; it is mainly silent also, which helps to make it seldom observed."

Kerlinger (1995) cites a study at Cape May, N.J., in which researchers walked more than 80 transects over two fall seasons, but saw fewer than 10 Connecticut Warblers, a particularly secretive species. And yet, banders in similar, adjacent habitat captured 55 in one season.

Even among more visible species, it is probable that some warblers were missed, and others counted twice in a given morning, because of the tendency of many of these birds to move about in roving flocks.

Nonetheless, a census of this kind can still produce a representative sampling of many of the warbler species using the park in fall. From this sampling, comparisons can be drawn as to the relative abundance of different species, and the peaks and valleys of migratory movements can be charted over the course of a season.

## OBSERVATIONS

1) These species comprised the 2,704 nonresident warblers observed during the four seasons:

Magnolia, 692  
Yellow-rumped, 307  
Black-throated Green, 303  
Wilson's, 237  
Black-throated Blue, 183  
Nashville, 180  
Chestnut-sided, 142  
Bay-breasted, 126  
Blackburnian, 120  
Blackpoll, 85  
Black-and-white, 66  
Canada, 34  
Northern Parula, 32  
Blue-winged, 20  
Orange-crowned, 19  
Ovenbird, 18  
N. Waterthrush, 16  
Cape May, 11  
Mourning, 11  
Tennessee, 8  
Palm, 8  
Cerulean, 4  
Hooded, 3  
Golden-winged, 1  
Prairie, 1  
Brewster's hybrid, 1

Three warbler species that routinely breed in the park. Yellow Warbler, American Redstart and Common Yellowthroat were not included in the count. Breeding adults and their offspring, particularly of the latter two species, linger in the park well after 10 Aug, and would skew the tally.

Seventy-six warblers were not identified as to species, including 22 "baypolls" that fall under the "Blackpoll Trio" complex as described by Kaufman (1990).

Magnolia was one of the most consistent in its numbers from year to year, representing 25 to 31 percent of all warblers seen each of the first three seasons. It also represented 30 percent of all warblers seen through the end of September of the last year, before an influx of Yellow-rumped in October. This should not be a surprise. Even in fall plumage, Magnolias are distinctive in appearance (note, for example, the undertail pattern in Dunn et al, 1997), and often forage at or near eye level. Eaton (1998) notes that at times this is the most numerous of our warblers on migration. If anything, the preferred habitat of this species is increasing as forests are removed from both its nesting and wintering grounds (Hall, 1994), so it is likely to remain an abundant migrant for the foreseeable future.

The volatility of most other species is perhaps best illustrated by Yellow-rumped Warblers. Two-thirds of all the birds counted from this species were seen during a single two-week period in October 1998. Many of the birds were counted as they frequented the same, poison-ivy draped trees to feed on the berries of that vine.

2) Though the movement of nonresident warblers through the park can begin in early August, and builds noticeably by month's end, the bulk of the migration occurs in September. Most species are no longer seen, or are reduced to isolated individuals by mid October. Within these broad parameters, however, the actual pattern of peak movements versus off days, varies from one season to the next.

There did seem to be one constant. In each of the four years, in early September, there was a significant movement of three or more days duration, during which daily counts averaged 30 or more birds. These movements occurred on 6-8 Sep, 1995 (95 birds); 8-10 Sep, 1996 (103 birds); 3-7 Sep, 1997 (171 birds) and 8-10 Sep, 1998 (154 birds). Two comparable movements occurred in the last part of September during two of the years, on 18-24 Sep, 1996 (255 birds) and 21-23 Sep, 1997 (101 birds). In terms of sheer numbers of birds and diversity of species, the average peak of migration occurred 8-10 Sep, when daily counts averaged 28 to 37 birds, of 8-10 species.

3) Beginning in 1996, temperature, wind speed/direction and air pressure

readings for the Rochester area were recorded from the Weather Channel each morning, noon and midnight during the count. Not surprisingly, many of the best counts occurred with the passage of cold fronts, when migrating warblers could take advantage of favorable tail winds.

Indeed, one of the best predictors of a good count was a purely north-west wind at midnight during September and the first week of October. This happened seven times, and each time 30 or more warblers were seen the next morning. However, not all movements fit easily into the cold front scenario. The 8-10 Sep, 1996 movement, for example, began as the remnants of Hurricane Fran moved directly over the Rochester area, bringing with it extremely low pressure and rains that apparently grounded many migrants.

## COMMENTS

Birders are always comparing notes, and it was interesting from time to time to hear other birders mention that they had had a good count of warblers just a few miles from the park, on a day the park was quiet, or vice versa. This leads to the question, how representative are these numbers? One point of comparison is *The Birds of Monroe County, New York, Annotated List* (1985), which gives frequency, abundance and seasonal occurrence of the various bird species seen in the county, based on birders observations through 1984.

While numbers for most of the warbler species observed during this count fell well within the maxima set out in this publication, there were at least two significant departures.

Both Wilson's and Nashville warblers, for example, are described as regular, uncommon fall transients, meaning that a competent observer at the proper time and place might see one to five birds in a day, and no more than 25 in a season. Both species were seen in greater abundance in the park. Daily counts of Wilson's, for example, exceeded five birds on nine different days, with a maximum count of 13 on 10 Sep, 1998; seasonal totals ranged from 48 to 85. Sherony and Brooks (1998) also report Wilson's to be "annual but uncommon" in fall, 1-6 birds per day, with most records in September and early October.

Most sightings of Wilson's Warblers in Badgerow Park were in August and September, with only one bird counted in October.

Similarly, daily counts of Nashville exceeded five birds on seven different days, with maximum counts of 12 on three of those days. Seasonal counts in three of the years ranged from 36 to 81 birds.

On the other hand, Tennessee Warbler, described in the Annotated List as a regular, fairly common fall transient, was seen only eight times.

Do these departures represent widespread changes in occurrence for these species since 1984, or isolated blips peculiar to Badgerow Park? In the absence of similar counts, at a variety of locations in the Rochester area, this must remain a matter of conjecture.

## ACKNOWLEDGEMENTS

I would like to thank my wife Hedy for her endless patience and willingness to forego fall vacations during the course of this census. I would also like to thank the chickadees of Badgerow Park for making the task of finding fall warblers so much easier!

## LITERATURE CONSULTED

- Bent, A.C. 1963. *Life Histories of North American Wood Warblers: Part 2*. Dover Publications, Inc., N.Y.
- Dunn, Jon and Garrett, Kimball. 1997. *A Field Guide to the Warblers of North America*. Houghton Mifflin Co., Boston.
- Eaton, S.E. 1998. Magnolia Warbler (*Dendroica magnolia*) In *Bull's Birds of New York State*, E. Levine, editor, Comstock Publishing Associates, Ithaca and London.
- Hall, G.A. 1994. Magnolia Warbler (*Dendroica magnolia*) In *The Birds of North America*, No. 136. (A. Poole, P. Stettenheim, and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.
- Kaufman, Kenn. 1990. *A Field Guide to Advanced Birding*. Houghton Mifflin Co. Boston.
- Kerlinger, Paul. 1995. *How Birds Migrate*. Stackpole Books, Mechanicsville, Pa.
- Sherony, D.F. and Brooks, E.W. 1998. Wilson's Warbler (*Wilsonia pusilla*) In *Bull's Birds of New York State*, E. Levine, editor, Comstock Publishing Associates, Ithaca and London.
- Smith, S. M. 1993. Black-capped Chickadee (*Poecile atricapillus*). In *The Birds of North America*, No. 39. (A. Poole, P. Stettenheim, and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.
- The Birds of Monroe County, New York, Annotated List*. 1985. Proceedings of the Rochester Academy of Science, Vol. 16, No. 1,