

A Biological Inventory of the Birds of Three Lake Forest Open Lands Association
Nature Preserves: Derwen Mawr, Everett Farm, and Melody Farm - 1998 and 1999

William Moskoff
Department of Biology
Lake Forest College

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INTRODUCTION

Within the past four years, the Lake Forest Open Lands Association (LFOLA) has acquired three new nature preserves: Derwen Mawr (20 acres); Melody Farm (60 acres); and Everett Farm (35 acres). All of the preserves are part of a larger greenway system bordering the Skokie and West Skokie Rivers in Lake Forest. LFOLA began restoration work on two of the three preserves during 1998, and wanted to conduct a pre-restoration baseline bird census to determine the impact of restoration on avian diversity and populations, and do an initial follow-up census in 1999.

METHODS

In both 1998 and 1999, I censused each of the three properties twice, first in early June and then again in late June. I used the point count method for censusing birds, recording the species and the number of individuals of each species seen and heard from points that were 150 meters apart, standing at each point for 5 minutes. When birds flew to another place I took care to note the direction of flight and if possible where they landed so as to minimize the possibility of double-counting. Censuses were conducted early in the morning and all ended before 9:00 a.m. Each census was conducted on a clear, sunny day. Where there were trails or roads, I conducted the point counts along these paths. Where no trail or road existed, I walked a straight line to the back of the property.

I separated birds into three categories: breeding birds, flyovers, and non-breeding birds. Birds were categorized as "breeding" on the basis of at least one criterion. Virtually all were said to be breeding on the basis of adult presence during the heart of the breeding season. In a small number of cases I was able to confirm breeding because I saw young or because I saw adults

either carrying food, presumably to a nest, or carrying a fecal sac away from a nest. The tables below indicate if breeding status was determined on the basis of anything other than adult presence. In the category of non-breeding birds I included the lone migratory species, ten Least Sandpipers that were late spring migrants in 1998, and a single Great Egret in 1998 that I was confident was not breeding at Melody Farm.

I also recorded the habitats in which the birds were found, dividing habitat associations into four broad categories: woodland, wetland, prairie, and savanna. As a measure of population, I calculated the number of individuals detected per visit. Given that two visits were made to each site, if a combined total of one individual was seen during both visits, the average number of birds per visit was 0.5.

RESULTS

Derwen Mawr

The bird population on this highly-disturbed woodland property was dominated by four avian species: American Crow, American Robin, Northern Cardinal, and American Goldfinch, all of them common woodland breeders (Table 1). These four species accounted for 65% and 54% of all the individuals I recorded on the property in 1998 and 1999, respectively. Although there is a wetland on the property, it was dry, thoroughly filled with brush, and did not harbor any birds. No restoration work occurred between the 1998 and 1999 censuses.

Everett Farm

There were three elements to the restoration that took place at Everett Farm. There was a trail system developed that went through the preserve in a circular fashion; there was extensive brush removal from the southern boundary; and in the back of the property between 50 and 60

pine trees out of several hundred were removed.

There was a total of 20 species recorded on this property in 1998 and 19 in 1999, principally American Robins, Blue Jays, and American Crows, which accounted for nearly half of all individuals in both years (Table 2). Birds were about as equally likely to be found in the wooded areas that run along the edge of the property as they were in the prairie.

Melody Farm

There was also three components of the restoration work done at Melody Farm. The area in front of the ponds was denuded; a number of non-native trees in the back of the ponds were removed in the interest of restoring the banks of the wetland; and there was extensive removal of buckthorn in the savannah complex south, southeast, and southwest of the pond. The most obvious short-term consequence of this work is that the pond, which offered cover for the Wood Ducks that nested there in 1998, became an open area and this likely led to the absence of Wood Ducks in 1999.

This property, the largest of the three, had the most species (Table 3). There were 27 breeding species and two non-breeding species in 1998 and 23 breeding species in 1999. The most dramatic difference between this property and the other two is the role played by wetland areas. A number of species breed either directly in the wetland areas or on the edge of the wetlands, including Canada Goose, Mallard, Wood Duck (1998 only), Red-winged Blackbird, Killdeer and Spotted Sandpiper. In both years, Red-winged Blackbirds were far and away the dominant species at Melody Farm (Table 3). There were a large number of Brown-headed Cowbirds in 1999, whereas they were virtually absent in 1998.

DISCUSSION

There were three striking differences between what was found in 1998 and 1999. One was the increased number of Brown-headed Cowbirds at both Everett Farm and Melody Farm. A number of the species that breed on these properties are parasitized by Brown-headed Cowbirds in Illinois woodlots and forests so it is not surprising to find the latter in substantial numbers. A second was the absence of breeding Wood Ducks at Melody Farm, and the third was the decline in the number of Northern Cardinals on each of the properties. There were few woodpeckers, flycatchers, or Black-capped Chickadees.

Two years worth of observations is not sufficient to come definitive conclusions about the status of any individual species or the change in the number of any species. It would probably be useful to revisit each of these properties in three years to see how the situation has changed.

Table 1. Derwen Mawr Nature Preserve

SPECIES	NO. DETECTED PER VISIT		HABITAT ASSOCIATIONS			
	1998	1999	WOODLAND	WETLAND	PRAIRIE	SAVANNA
<i>BREEDING BIRDS</i>						
Northern Flicker	0.5	0.0	x			
Hairy Woodpecker	0.5	0.0	x			
Downy Woodpecker	1.5	0.0	x			
Blue Jay	3.0	4.0	x			
American Crow	11.0	7.5	x			
Black-capped Chickadee	3.0	0.0	x			
House Wren	2.0	0.0	x			
Gray Catbird	7.0	4.0	x			
American Robin	12.5	5.0	x			
Wood Thrush	1.0	0.0	x			
Cedar Waxwing	1.5	0.0	x			
House Finch	0.5	0.0	x			
Northern Cardinal	10.5	5.5	x			
Indigo Bunting	0.5	1.0	x			
Red-eyed Vireo	0.5	1.5	x			
Yellow Warbler	0.5	0.0	x			
Common Yellowthroat	1.0	1.5	x			
American Goldfinch	8.0	3.0	x			
White-breasted Nuthatch	0.0	0.5	x			
<i>FLYOVERS</i>						
Chimney Swift	0.5	1.5				
Mallard	0.0	0.5				

Table 2. Everett Farm Nature Preserve

SPECIES	NO. DETECTED PER VISIT		HABITAT ASSOCIATIONS			
	1998	1999	WOODLAND	WETLAND	PRAIRIE	SAVANNA
<i>BREEDING BIRDS</i>						
Killdeer	2.0	2.0				x
Mourning Dove	2.0	0.0			x	
Northern Flicker	0.5	0.5	x			
Downy Woodpecker	0.5	0.0			x	
Eastern Wood-Pewee	0.5	0.5	x			
Blue Jay	9.0	6.0	x		x	
American Crow	8.0	4.0	x		x	
Black-capped Chickadee	7.5	3.0	x			
American Robin	18.5	21.5	x		x	x
Eastern Bluebird	1.5	1.5			x	
Cedar Waxwing	2.5	0.0				x
European Starling	0.5	0.0			x	
Yellow Warbler	0.5	0.0	x			
Common Yellowthroat	2.0	2.0	x			
Baltimore Oriole	0.5	0.0	x			
Common Grackle	1.0	0.5				x
Northern Cardinal	5.0	0.5	x		x	
Chipping Sparrow	1.0	1.5				x
Song Sparrow	5.5	3.5			x	
American Goldfinch	6.5	7.5	x	x	x	
House Wren	0.0	1.5	x			

Table 2 (continued)

	1998	1999	
Gray Catbird	0.0	0.5	x
Brown-headed Cowbird	0.0	2.0	x
Indigo Bunting	0.0	0.5	x
Great Horned Owl	0.0	0.5	x

FLYOVERS

Red-tailed Hawk	1.0	0.0
Double-crested Cormorants	1.0	0.0
Sharp-shinned Hawk	0.0	0.5

Table 3. Melody Farm Nature Preserve

SPECIES	NO. DETECTED PER VISIT		HABITAT ASSOCIATIONS			
	1998	1999	WOODLAND	WETLAND	PRAIRIE	SAVANNA
<i>BREEDING BIRDS</i>						
Canada Goose	3.0	3.0		x		
Mallard ^a	7.0	3.0		x		
Wood Duck	3.5	0.0		x		
Killdeer ^a	4.0	1.0		x		
Spotted Sandpiper	1.0	0.5		x		
Mourning Dove	2.5	1.5	x			
Eastern Kingbird	1.0	1.0	x			
Eastern Wood-Pewee	0.5	0.5	x			
Barn Swallow	0.5	1.0		x		
Blue Jay	1.5	1.0	x			
American Crow	4.0	4.0	x			
Black-capped Chickadee	0.5	1.5	x			
American Robin ^b	12.5	5.5	x			
White-breasted Nuthatch	0.5	0.5	x			
House Wren	1.5	0.0	x			
Gray Catbird	0.5	0.5	x			
European Starling ^c	10.0	2.0	x			
Yellow Warbler	0.5	0.0	x			
House Sparrow	2.5	2.0	x			
Baltimore Oriole	1.0	0.0	x			
Common Grackle	2.0	0.0	x			
Brown-headed Cowbird	0.5	7.5	x			

Table 3. (continued)

Northern Cardinal	1.5 2.0	x	
Chipping Sparrow	2.0 0.5	x	
Song Sparrow	5.0 5.0	x	
American Goldfinch	10.5 3.5	x	
Red-winged Blackbird	23.5 22.0		x
Northern Flicker	0.0 1.0	x	
Red-bellied Woodpecker	0.0 0.5	x	
<i>FLYOVERS</i>			
Green Heron	1.0 0.0		
Cooper's Hawk	0.5 0.0		
Chimney Swift	2.5 0.0		

^a Fledglings observed

^b Observed carrying food

^c Observed carrying fecal sac