

Founded by  
FRANCIS H. HERRICK  
in 1905 for the recording  
of bird activities.

Edited by  
DR. S. CHARLES KENDEIGH



BIRD CALENDAR COMMITTEE  
FOR 1938

Dr. S. C. Kendeigh, Chairman  
Dr. J. Paul Visscher  
Dr. J. W. Aldrich  
Mr. R. A. Huggins  
Mr. Ralph O'Reilly

*Bird Calendar of the*  
CLEVELAND BIRD CLUB

---

34th Year – Bulletin No. 3 – June, July, and August, 1938 – Prepared October 20, 1938.

---

The contributors to this number of the Bulletin are:

John W. Aldrich	Frank D. Johnson
B. P. Bole, Jr.	Charles H. Knight
F. W. Braund	Philip N. Moulthrop
Joe Corbe	Eugene P. Odum
Arthur B. Fuller	Ralph O'Reilly, Jr.
Isabelle Hellwig	Merit B. Skaggs
Russell A. Huggins	M. B. Walters
Arthur B. Williams	

This issue is edited by Dr. Arthur B. Williams with the assistance of Russell A. Huggins. Inasmuch as so large a part of the present issue is devoted to nesting census reports, many of which were begun in April, and all of which included much work done in May, it seems desirable to review weather conditions for the months of April, May and June.

April – Conditions in the fore part of the month varied between snow and cold rains, a fall of 7.4 inches of snow on the 6th, with a mean temperature of 30° (12° below normal) being followed by cold rain (1.17 inches) on the 8th, and a snow fall again on the 9th, with a mean temperature of 34° (10° below normal) accompanied by relatively heavy winds. The above are Cleveland Weather Bureau figures and apply particularly to the Lake Plain region. On the Plateau (Cleveland Heights and further east) temperatures are always lower. These conditions were exceedingly hard on all early ground-nesting birds like Killdeer and Horned Lark and probably many nests were destroyed. The month closed with weather warmer than normal.

May – The month was marked by warmer than normal temperatures the first week and by a sharp drop to below freezing temperature in the second and third weeks. The Cleveland Weather Bureau reported frosts on the 12th, 13th, and 25th. Comparing Cleveland records (Lake Plain) with Holden Arboretum records (Plateau) shows a minimum of 39° on the 11th at Cleveland, as against a minimum of 23° at the Arboretum for the same date. Likewise, a minimum of 43° at Cleveland for the period May 24 to 30, as against a minimum of 31° at the Arboretum for the same time. Much newly developing vegetation was killed, and plant growth received a severe set-back. These unusual conditions at the inception of the nesting season of the summer resident species must have been critical in unprotected locations.

June – Relatively cool with no severe storms. For the period from January 1st to August 31st, the Cleveland Weather Bureau reports an accumulated excess of temperature over normal of 946°.

Few trips were reported by members of the Bird Club which did not involve nesting census studies. Some of the most interesting records turned in were the following:

For Pymatuning Lake region, Skaggs reports:

Horned Grebe in breeding plumage, Aug. 6 (1)

American Egret, Aug. 6 (2); Aug. 20 (12)

Bald Eagle, July 25 (3); Aug. 6 (1); Aug. 20 (1).

Short-eared Owl – One reported by Skaggs seen near Solon, June 5.

A pair reported by O'Reilly, frequently seen by day during the summer over open fields near corner SOM and Cedar Roads.

What appears to be evidence of a delayed migration wave is reported by Bole, for Little Mountain. On June 6, a single least flycatcher was noted. On June 13 an olive-sided flycatcher was discovered, and this bird stayed until July 4. On June 20, 2 least flycatchers appeared. On the 27th, 2 yellow-bellied flycatchers were seen. On July 4th, the mountain was invaded by what appeared to be a flock of migrating warblers numbering 17 black-throated green (in excess of the normal breeding population), 6 chestnut-sided, 1 Wilson's, and 2 pine warblers. A winter wren in full song was heard throughout the morning. On July 18, a female Blackburnian warbler was noted.

These birds were no doubt migrants, but which way were they going? Probably north, as all males were singing and no fall-plumaged birds were seen. Much time was spent by Bole and others trying to establish a breeding record for the olive-sided flycatcher, but it was finally decided that the bird was an unmated male that established a territory but failed to find a mate. The pine warblers stayed until July and then disappeared. They did not breed.

Beginnings of southerly migration were reported –

By Skaggs: “On August 20, at least 40,000 blackbirds were seen going to a roost on the west shore at Pymatuning Lake. About five percent were grackles, the rest starlings.”

By O'Reilly: “Purple martins and other migrating swallows appeared in numbers in the region east of Cleveland July 15 and were gone by August 15.

The first migrating warblers noted in the North Chagrin beech-maple woods were four Magnolias August 29.

Cowbirds in a flock, numbering between 300 and 400, were observed in a pasture August 29, in company with ‘a scant 10 cows!’”

O'Reilly further reports that the number of hawks noted by him in the last four years of field observations in the woods and fields along Cedar Road between Cleveland Heights and Gates Mills have happily not decreased during this period. Each year three pairs of sparrow hawks, and one pair each of red-tailed, red-shouldered, sharp-shinned, and marsh hawks have been noted here.

### 1938 Census of Nesting Birds of Cleveland Region

After several years of intensive nesting census work, it seems desirable to define what we shall consider as the “Cleveland region”. A committee of veteran census takers at the Cleveland Museum of Natural History recommend that the Cleveland region, so far as these studies of breeding birds are concerned, shall be the territory enclosed within a semicircle bounded on the north by Lake Erie, with a

radius measuring 30 miles, and whose center is at the Cleveland Public Square. On the east this will include Painesville, Fairport Harbor, Chardon, Claridon, Burton, Hiram, and Mantua. On the south it includes Brady Lake (Akron Reservoir), Kent, Cuyahoga Falls, and cuts through Akron. On the west it extends beyond Lorain, to Amherst and includes Elyria, Oberlin, Litchfield, and Medina.

The southern and south-eastern portion of this area coincides with the divide marking the watershed between the Lake Erie and Ohio River drainage systems. It includes all of the Cleveland Metropolitan Park reservations, all of the Rocky River, Cuyahoga and Chagrin River drainage systems, and most of that of the Black River (emptying at Lorain) as well as a small portion of the Grand River near its mouth (Painesville and Fairport Harbor).

All of Cuyahoga County and parts of Lorain, Medina, Summit, Portage, Geauga, and Lake Counties are included. The 60 miles of lake shore include the harbors of Lorain, Cleveland, Richmond, and Fairport. The area is entirely glaciated, with portions of lake plain, till plain and plateau. Little Mountain, Aurora Pond, Fern Lake, and Mentor Marsh are within its boundaries. It comprises approximately 1750 square miles.

Already, in this Cleveland region, as above defined, studies of 22 nesting habitats of birds have been made. Of these, by far the oldest is that of the 15 acres of buildings and grounds at the Baldwin Bird Research Laboratory at Gates Mills, but this is largely a "man-made" habitat.

Of the others, we have 8 years of continuous records for the North Chagrin beech-maple forest and 6 years each for the Solon Bog forest, Aurora Pond marsh and swamp shrub communities, and Little Mountain pine-hemlock forest. These studies were inaugurated and carried on by members of the staff of the Cleveland Museum of Natural History, and the methods followed in subsequent studies were worked out by them.

Now, with the cooperation of members of the Cleveland Bird Club and others, it has been possible to begin to organize a systematic study of the breeding bird population of the whole Cleveland region that should eventually include all types of habitat within the region and cover its different physiographic divisions adequately.

Thus, in addition to the older studies, we have two years of records for six additional locations and one year of records for 11 others. So far as we know, nothing like this has ever been attempted before in the history of ornithology.

Reports for 1938 include the following studies, which, with the exception of two held out because of incompleteness, were published in the September-October number of BIRD LORE. For comparison, the figures for 1937 are shown in connection with those which were reported this year. We miss O'Reilly's open field, Perry's scout camp area, Jedlicka's marsh and hillside and Williams's Rocky River flood plain. On the other hand six new studies appear, adding at least three new types of habitat to our list (sand dunes, prairie type field, and second growth elm-maple).

In all, fourteen people took part in these studies this year. On the whole, the work done was of high quality, making the results of real scientific value, and our sincere thanks go to those who have whole-heartedly devoted much time to the success of the enterprise.

Table I.

Summary of Nesting Censuses in the Cleveland Area, 1938

Location	Acres	Observer	Character	Pairs per acre:	
				1937	1938
Holden Arboretum	42	P.N. Moulthrop	Open field, brambles and grasses, scrub thorn, apple and pear trees	1.4	1.57
Holden Arboretum	55	A. B. Fuller	Open fields, thorn scrub, small sugar maple and pawpaw grove	1.1	1.55
Middlefield	15	I. Hellwig	Open field, scrub thorns and apples 10 to 15 feet high	3.6	3.6
Holden Arboretum	39	M.B. Walters B.P. Bole, Jr. P. N. Moulthrop	Young beech-maple forest with some oak and hickory	2.3	2.2
North Chagrin, Met. Park	65	M.B. Walters A. B. Williams	Climax beech-maple forest	1.9	1.19
Aurora Pond	15	J.W. Aldrich	Marsh and swamp shrub	3.0	5.2
Holden Arboretum	5.5	A.B. Fuller	Small bogs and ponds	3.5	4.0
Little Mountain	75	B.P. Bole, Jr.	Pine-hemlock-red maple	1.4	1.31
Solon Bog	23	J.W. Aldrich	Red maple-yellow birch bog forest	0.65	1.27
Baldwin Estate	15	S.C. Kendeigh E.P. Odum R.A. Huggins	Country estate – Buildings, gardens, orchards, small sugar maple grove	6.2	5.6
Richmong	22	M. B. Skaggs	Sand dunes and lake beach		0.91
Maple Heights	31	C.H. Knight	Open field, brambles, scrub thorns, crab apple and black cherry		1.26
Shaker Heights	15	M.B. Walters A.B. Williams	“Prairie” type of open field		1.07
Hinckley, Met. Pk.	31	F.D. Johnson	Second growth elms and maples with some scrub thorns near lake edge		2.00
Middlefield	5	I. Hellwig	Small swampy area – willows, cattails, sedges		3.20
Euclid Creek, Met. Park	22.5	Joe Corbe	Wooded ravine with stream Beech and sugar maple		1.9
Totals	16	526.0	14		
Last year		582.5	12	Average	1.75 2.36

The individual census studies follow:

### A. Sand Dune Habitat

Lake Erie shore at Richmond just west of mouth of Grand River. Open sand dunes with scattering [of] cottonwood, willows, and wafer ash. Sparse ground cover of beach pea, andrapogon grass and bergamot. Size 22 acres.

Census by M. B. Skaggs. Birds listed in pairs.

Song Sparrow	9	Killdeer	1
Spotted Sandpiper	4	Cowbird	1
Goldfinch	2	Vesper Sparrow	1
Field Sparrow	2		

Total pairs	20
Pairs per acre	0.91
Number of species	7

### B. Open Field and Scrub Habitats

1. Shaker Heights – Sulgrave Road. Open field with no trees – sparse grass early in season developing into taller grasses and weeds like milfoil and goldenrod, June and July. Size 15 acres.

Census by M. B. Walters and A. B. Williams (not complete). Birds listed in pairs.

Bobolink	3	Savannah Sparrow	1
Upland Plover	2	Grasshopper Sparrow	1
Prairie Horned Lark	2	Henslow's Sparrow	1
Meadowlark	2	Vesper Sparrow	1
Killdeer	1		

Total pairs	14
Pairs per acre	1.0
Number of species	9

2. Holden Arboretum – Open fields with grass, brambles, small thorns and small conifers recently planted but not large enough to affect bird population. Thorns, crabs, scrub apples, flowering dogwood, and small red maples scattered through. Small grove of sugar maple and pawpaw. Size 55.5 acres.

Census by Arthur B. Fuller. Birds listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Field Sparrow	25	21	Meadowlark	1	3
Song Sparrow	9	13	Cowbird	present	present
Vesper Sparrow	7	3	Red-eyed Towhee	1	3
Robin	3	6	Grasshopper Sparrow	1	1
Bluebird (*6 in boxes)	2	*6	Henslow's Sparrow	1	0
Yellow Warbler	2	4	Woodcock	0	1
Chipping Sparrow	2	2	Hummingbird	0	1
Flicker	1	0	Alder Flycatcher	0	1
Phoebe	1	1	Starling (*1 in box)	0	*1
Chickadee (*2 in boxes)	1	*3	Yellow-billed Cuckoo	0	1
House Wren (*4 in boxes)	1	*5	Black-billed Cuckoo	0	3
Catbird	1	3	Wood Pewee	0	1
Northern Yellowthroat	1	2	Red-eyed Vireo	0	1

	<u>1937</u>	<u>1938</u>
Total pairs	60	86
Pairs per acre	1.08	1.55
Number of species	18	24

3. Holden Arboretum – Corning Acres – Open fields with tall grasses, brambles, scrub thorns, choke cherry, and young white ash. On western edge scrub apple and pear trees. A few large elms and red maples grow about some boggy areas. Size 42 acres.

Census by Philip N. Moulthrop. Birds listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Field Sparrow	22	23	Flicker	1	0
Henslow's Sparrow	12	2	Yellow Warbler	1	0
Song Sparrow	6	13	Cowbird	present	present
Red-eyed Towhee	4	3	Black-billed Cuckoo	0	3
Vesper Sparrow	3	4	Brown Thrasher	0	1
Grasshopper Sparrow	2	0	Robin	0	3
Woodcock	2	0	Red-eyed Vireo	0	1
Northern Yellowthroat	2	4	Ovenbird	0	1
Meadowlark	2	4	Redwing Blackbird	0	1
Bob-white	1	1	Indigo Bunting	0	1
Catbird	1	1	Goldfinch	present	present
			<u>1937</u>	<u>1938</u>	
Total Pairs			59	66	
Pairs per acre			1.4	1.57	
Number of species			15	16	

4. Maple Heights, adjoining Libby Road – Open field with grasses, brambles, tall weeds like goldenrod, wild carrot, milkweed and ox-eye daisy. Scrub thorns, wild crab and wild black cherry 5 to 15 feet high. [no acreage in original]

Census by Charles H. Knight.

	<u>Pairs</u>		<u>Pairs</u>
Field Sparrow	6	Pheasant	1
Robin	4	Woodcock	1
Bob-white	3	Yellow-billed Cuckoo	1
Meadowlark	3	Flicker	1
Goldfinch	3	Kingbird	1
Vesper Sparrow	3	Cedar Waxwing	1
Song Sparrow	3	Red-eyed Vireo	1
Northern Yellowthroat	2	Bobolink	1
Red-eyed Towhee	2	Cowbird	present
Grasshopper Sparrow	2		
Total Pairs		39	
Pairs per acre		1.26	
Number of species		19	

5. Middlefield – Western part thickly grown with scrub apples and thorns 10 to 15 feet high. Ground cover of tall grasses, coarse weeds and brambles. Eastern part more open with scattered thorns, scrub apples and weeds.

Size 15 acres.

Census by Isabelle Hellwig.

Birds listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Yellow Warbler	12	8	Bluebird	1	0
Catbird	10	9	Cedar Waxwing	1	1
Robin	6	4	Blue-winged Warbler	1	1
Field Sparrow	5	5	Northern Yellowthroat	1	0
Song Sparrow	4	3	Cowbird	present	present
Mourning Dove	2	3	Chipping Sparrow	1	0
Black-billed Cuckoo	2	1	Pheasant	0	1
Rose-breasted Grosbeak	2	4	Flicker	0	1
Red-eyed Towhee	2	2	Wood Thrush	0	1
Green Heron	1	2	Starling	0	1
Blue Jay	1	1	Baltimore Oriole	0	1
House Wren	1	1	Cardinal	0	1
Brown Thrasher	1	2	Vesper Sparrow	0	1
			<u>1937</u>	<u>1938</u>	
Total Pairs			54	54	
Pairs per acre			3.6	3.6	
Number of species			19	22	

### C. Second Growth Tree Habitat

South end of Hinckley Lake – Second growth of elms and maples with some thorns and low conifers. Near edge of lake (which is included in this census) – not complete. Size 31 acres.

Census by Frank D. Johnson

	<u>Pairs</u>		<u>Pairs</u>
Redwing Blackbird	12	Goldfinch	2
Song Sparrow	6	Red-eyed Towhee	2
Robin	5	Killdeer	1
Field Sparrow	5	Black-billed Cuckoo	1
Cowbird (numerous)	present	Kingbird	1
Yellow Warblers	4	Phoebe	1
Mourning Dove	3	Alder Flycatcher	1
Downy Woodpecker	3	Red-eyed Vireo	1
Tufted Titmouse	3	Baltimore Oriole	1
Rose-breasted Grosbeak	3	Scarlet Tanager	1
Spotted Sandpiper	2	Cardinal	1
Blue-gray Gnatcatcher	2		
Total Pairs		61	
Pairs per acre		2.0	
Number of species		23	

### D. Ponds, Bogs and Marsh Habitat

1. Holden Arboretum – Blueberry Bog with Red Maple, Sugar Maple and Bitternut Hickory in water, or near edge. Buttonbush Bog, treeless but with extensive growth of buttonbush. Three other small open ponds. Size (total) 5.5 acres.

Census by Arthur B. Fuller. Birds listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Redwing Blackbird	9	9	Yellow Warbler	1	1
Killdeer	3	1	Cowbird	present	present
Pied-billed Grebe	1	0	Song Sparrow	1	1
Mallard	1	1	Green Heron	0	1
Wood Duck	1	2	Flicker	0	1
Spotted Sandpiper	1	1	Phoebe	0	1
Kingbird	1	1	Starling	0	2
			<u>1937</u>	<u>1938</u>	
Total Pairs			19	22	
Pairs per acre			3.45	4.0	
Number of species			10	13	

2. Middlefield – Small swampy depression in center of area B5. Willows, cattails, sedges and other marsh plants. Size 5 acres.  
Census by Isabelle Hellwig.

	<u>Pairs</u>
Redwing Blackbird	5
Northern Yellowthroat	4
Swamp Sparrow	3
Alder Flycatcher	2
Song Sparrow	<u>2</u>
Total pairs	16
Pairs per acre	3.2
Number of species	5

3. Aurora Pond – Marsh and Swamp shrub – Ten and one-half acres of common rush, woolgrass and cattail. Four and one-half acres of buttonbush, swamp rose, small willow and aspen. Size 15 acres.  
Census by John W. Aldrich. Birds listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Redwing Blackbird	14	31	Green Heron	1	0
Yellow Warbler	6	2	Sora	1	0
Swamp Sparrow	5	8	Florida Gallinule	1	1
Alder Flycatcher	4	4	Catbird	1	2
Long-billed Marsh Wren	4	16	Northern Yellow-throat	1	2
Least Bittern	2	3	Song Sparrow	1	3
Virginia Rail	2	3	Mallard	0	1
Kingbird	2	0	Goldfinch	0	2
			<u>1937</u>	<u>1938</u>	
Total Pairs			45	78	
Pairs per acre			3.0	5.2	
Number of species			14	13	



E. Forest Habitats

1. Solon Bog – Red Maple – Yellow Birch Bog Forest. Many dead stubs, chiefly yellow birch. Shrub stratum dense in a few places, but for the most part sparse. Shrubs are chiefly toothed viburnum, tall blueberry and spicebush. Ground cover of cinnamon fern, halberd-leaved tearthumb, Canada mayflower and sphagnum and other mosses. Birds listed in pairs. Size 23 acres. Census by John W. Aldrich.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Downy Woodpecker	2	1	Grinnell Water Thrush	1	3
Ovenbird	2	1	Scarlet Tanager	1	0
Crested Flycatcher	1	1	Flicker	0	1
Chickadee	1	1	Cowbird	0	1
Wood Pewee	1	1	White-breasted Nuthatch	0	1
Blue Jay	1	0	Northern Yellowthroat	0	1
Tufted Titmouse	1	1	Cardinal	0	1
House Wren	1	1	Rose-breasted Grosbeak	0	1
Catbird	1	2	Swamp Sparrow	0	2
Bluebird	1	0	Song Sparrow	0	3
Red-eyed Vireo	1	2			

	<u>1937</u>	<u>1938</u>
Total Pairs	15	29
Pairs per acre	0.56	1.27
Number of species	13	18

2. Euclid Creek Metropolitan Park – Wooded ravine with stream at bottom. Large trees, mainly sugar maple and beech. Long narrow character of area gives large amount of edge abutting largely on open fields. Size 25.5 acres. Census by Joe Corbe. Birds listed in pairs.

Red-eyed Vireo	14	Flicker	1
Robin	8	Crow	1
Ovenbird	5	Chickadee	1
Wood Pewee	4	Catbird	1
White-breasted Nuthatch	3	Cardinal	1
Crested Flycatcher	2	Cowbird	1
Phoebe	2	Goldfinch	1
Red-eyed Towhee	2	Song Sparrow	1
Belted Kingfisher	1		

Total Pairs	49
Pairs per acre	1.9
Number of species	17

3. Little Mountain – Pine – Hemlock – Red Maple Forest. Forest crown of widely spaced, white pines 100 to 200 feet in height, with understory of young and adult red maples and hemlocks, and some oaks [oaks]. Shrub layer well developed consisting of witch hazel, young black cherries, viburnums, honey suckles and blueberries. Ground cover of Canada mayflower, ferns and green briar. Census by B. P. Bole, Jr. Birds listed in pairs. Size 75 acres.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Black-throated Green Warbler	14	10	Ruffed Grouse	1	0
Phoebe	11	11	Pileated Woodpecker	1	2
Slate-colored Junco	10	7	Crow	1	1
Hooded Warbler	7	9	Cedar Waxwing	1	0
Hairy Woodpecker	5	2	Cerulean Warbler	1	0
White-breasted Nuthatch	5	3	Purple Finch	1	0
House Wren	5	8	Chipping Sparrow	1	3
Robin	5	6	Turkey Vulture	0	1
Ovenbird	5	9	Sharp-shinned Hawk	0	1
Wood Pewee	4	4	Black-billed Cuckoo	0	2
Chickadee	4	7	Barred Owl	0	1
Scarlet Tanager	3	4	Whip-poor-will	0	1
Indigo Bunting	3	2	Flicker	0	1
Mourning Dove	2	1	Kingbird	0	1
Chimney Swift	2	2	Acadian Flycatcher	0	1
Crested Flycatcher	2	4	Tufted Titmouse	0	2
Blue Jay	2	2	Red-breasted Nuthatch	0	2
Wood Thrush	2	5	Louisiana Water Thrush	0	2
Red-eyed Vireo	2	5	Redstart	0	1
Blue-headed Vireo	2	0	Cardinal	0	1
Cowbird	present	present	Red-eyed Towhee	0	3
Rose-breasted Grosbeak	2	3	Song Sparrow	0	1
			<u>1937</u>	<u>1938</u>	
Total Pairs			104	131	
Pairs per acre			1.38	1.74	
Number of species			29	40	

4. Holden Arboretum – Young Beech-Maple-Hemlock Forest with some Oak and Hickory. Includes large ravine with creek at bottom, as well as smaller ravines. 39 acres. Census by M. B. Walters, B. P. Bole, Jr., P. N. Moulthrop. Birds listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Ovenbird	15	13	Downy Woodpecker	2	3
Red-eyed Vireo	12	15	Crested Flycatcher	2	3
Hooded Warbler	7	6	White-breasted Nuthatch	2	2
Wood Pewee	6	5	Yellow-throated Vireo	2	1
Tufted Titmouse	6	3	Red-eyed Towhee	2	0
Acadian Flycatcher	4	6	Red-tailed Hawk	1	1
Redstart	4	6	Flicker	1	0
Hairy Woodpecker	3	2	Phoebe	1	0
Chickadee	3	3	Blue Jay	1	1
Wood Thrush	3	4	Black-throated Green Warbler	1	1
Cerulean Warbler	3	4	Cardinal	1	0
Louisiana Water Thrush	3	2	Rose-breasted Grosbeak	1	1
Scarlet Tanager	3	3	Robin	0	1
Red-bellied Woodpecker	2	2			
			<u>1937</u>	<u>1938</u>	
Total Pairs			91	88	
Pairs per acre			2.3	2.2	
Number of species			26	23	

5. North Chagrin Metropolitan Park. Climax Beech-Maple-Hemlock Forest. Dominated by beech and sugar maple with little shrub development and practically no small tree understory except in a few places where young beech and maple are found. Size 65 acres.

Census by M. B. Walters and A. B. Williams. Birds listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Red-eyed Vireo	20	21	Yellow-throated Vireo	1	1
Ovenbird	22	14	Red-eyed Towhee	0	1
Hooded Warbler	14	13	Cerulean Warbler	1	1
Redstart	13	12	Robin	0	1
Wood Thrush	6	10	Phoebe	1	1
Tufted Titmouse	5	5	Barred Owl	1	1
Wood Pewee	5	7	Flicker	1	0
Scarlet Tanager	5	5	Rose-breasted Grosbeak	1	1
Acadian Flycatcher	5	5	Cowbird	present	present
Chickadee	4	2	Red-bellied Woodpecker	1	0
White-breasted Nuthatch	3	3	Yellow-billed Cuckoo	0	1
Downy Woodpecker	2	3	Blue Jay	0	1
Hairy Woodpecker	3	2	Carolina Wren	0	1
Cardinal	2	3	Louisiana Water Thrush	2	2
			<u>1937</u>	<u>1938</u>	
Total Pairs			123	119	
Pairs per acre			1.89	1.83	
Number of species			23	25	

#### F. Country Estate Habitat

Gates Mills – Baldwin Bird Laboratory – Buildings, gardens, orchards, lawns. Large variety of planted trees and shrubs. A small hard maple grove with thick underbrush. Somewhat comparable to an artificial forest edge. Birds protected from enemies and many nest boxes provided. Size 15 acres.  
Census by S. C. Kendeigh, Eugene P. Odum, and Russell A. Huggins. Listed in pairs.

	<u>1937</u>	<u>1938</u>		<u>1937</u>	<u>1938</u>
Robin	12	12	Cedar Waxwing	1	1
House Wren	11	11	Yellow-throated Vireo	1	1
Song Sparrow	10	9	Red-eyed Vireo	1	2
Purple Martin	9	0	Yellow Warbler	1	2
English Sparrow	9	9	Cowbird	present	1
Chipping Sparrow	8	6	Rose-breasted Grosbeak	1	0
Starling	8	4	Purple Finch	1	0
Catbird	6	5	Downy Woodpecker	0	1
Mourning Dove	4	0	Crested Flycatcher	0	1
Goldfinch	2	2	Wood Pewee	1	2
Sparrow Hawk	1	0	Barn Swallow	0	1
Black-billed Cuckoo	1	0	White-breasted Nuthatch	0	1
Chimney Swift	1	2	Blue-winged Warbler	0	1
Hummingbird	1	2	Redstart	0	1
Flicker	1	1	Cardinal	0	1
Phoebe	1	2	Red-eyed Towhee	0	1
Bluebird	1	2			
			<u>1937</u>	<u>1938</u>	
Total Pairs			93	84	
Pairs per acre			6.2	5.6	
Number of species			25	27	

A study of the foregoing reports reveals the fact that in the last two years 86 species of birds have been found nesting in 711 acres of the Cleveland region. Nine new species were added in 1938, but 10 species reported in 1937 were not listed in 1938. As indicated by Table I, 1938 shows a slight increase in density of population amounting to 0.6 pairs per acre. Causes for changes in the character of the bird population of a habitat are not always easy to recognize. However, the conspicuous changes recorded in these studies seem to be fairly obvious.

In the study of the open field habitat (B3) by Moulthrop, there seems to be a replacement of the Henslow's Sparrows of 1937 by Song Sparrows in 1938. The explanation offered by Moulthrop is that in 1937 a neighboring field, much preferred by Henslow's Sparrows, was subjected to early mowing, resulting in heavy migration of Henslow's into the most available adjacent territory. In 1938 there was no early mowing of the neighboring piece, hence no large Henslow population in Moulthrop's area. Note that the Henslow population in Fuller's area (B2), near by, also dropped (from 1 pair in 1937 to none in 1938), undoubtedly due to the same cause.

The increase in population density in area B2, Fuller ascribes to more intensive work on his part in 1938. Also, the putting up of a number of nest boxes in the autumn of 1937 definitely added 6 pairs of bluebirds, 2 [of] chickadees, 4 of house wrens, and 1 of starlings – to the population of this area.

The surprising increase in density in the marsh-swamp shrub and bog forest areas (D3 and E1) is explained by Aldrich on the basis of a rise in the water levels in the Marsh and in the Bog Forest adjacent to it, due to a 6 inch increase in the height of the dam across the outlet stream in the autumn of 1937. This greatly altered the character of the vegetation in the Marsh. Grasses were reduced and rushes and cattails greatly increased. In the bog forest the conditions of forest floor vegetation were greatly changed, much more grass and herbaceous plants appearing.

The increase in population density on Little Mountain seems to be almost entirely due to the appearance of new species in the list. Bole points out that nearly all of these represent 5 species nesting in the area in other years (previous to 1937) and at the present time on the lower slopes of the mountain.

Miss Hellwig's area (B5) is remarkable for its stability, the density of population this year being exactly the same as last year, though the species list is somewhat different. This would seem to be an area where environmental conditions are close to optimum for the species utilizing it for breeding purposes, so that it is probably occupied more or less regularly to the limit of its "carrying capacity".

The editor of BIRD LORE'S breeding bird census comments on our "open field" studies as follows:

"Open fields, in the present report, yield populations of 290 (Knight), 324 (Moulthrop), and 340 (Fuller and Bole) adult birds per 100 acres. Before these can be accepted as representing a true mean, it will be necessary for Miss Hellwig to determine why a fourth open field with a population of 720 should be so much higher."

Miss Hellwig points out that in this instance, she would say that the answer to this question appears to her to lie simply in the stage of succession represented by the various "open field" habitats reported upon.

Miss Hellwig's area has more young trees, and in certain portions, a denser growth of young trees, than any of the other "open" areas. Differences in the vegetation of these areas may seem small to human eyes, but they probably bulk large in the nesting requirements of certain species of birds. This appears very definitely when we arrange our "open field" studies in the order of their increasing density of vegetation, (Table II).

In this listing, we have omitted those species obviously present as a result of human influence (bird boxes, buildings, or other structures), omitted the few forest species reported (wood pewee, ovenbird, red-eyed vireo), eliminated the species which might be classed as occasional only (chickadee, house wren, hummingbird, starling, cedar waxwing, kingbird), and admitted into the picture certain species reported as regular visitors during the breeding season, though not actually nesting within the boundaries of the area (piping plover, short-eared owl, marsh hawk).

It is quite evident that we have a well-marked succession of birds as our areas become less and less actually "open". Thus we begin with the piping plover, a bird of the open sand beach, requiring no vegetation whatever for its nesting site, and end with the Baltimore oriole, a bird requiring at least a single large tree for its nesting location, but still a bird of open places and not of the forest.

The editor realizes that the data available for Table II is insufficient for anything beyond tentative conclusions and that it is quite possible that further studies may alter the position of some of the species in their successional order. However, it does illustrate the principle of succession as applied to bird population in our local "open" habitats.

Taking into consideration all of the habitats studied, the most cosmopolitan species is the song sparrow, occurring in 16 out of 19 areas. The cowbird occurs in 14, the flicker and robin in 12, the red-eyed vireo in 11 and the northern yellowthroat and the red-eyed towhee in 10.

The species restricted to one habitat are 22 in number; Little Mountain, and ponds, bogs and marshes accounting for more than half (13) of them.

Table II  
Succession of species in various "open" habitats

- A. Skaggs – Sand dunes, grasses, a few small willows and cottonwoods.  
 B. Shaker Heights – Sparse or heavy grass, tall weeds, no trees, prairie type field.  
 C. O'Reilly – (1937) Tall grass, brambles, coarse weeds, a few trees.  
 D. Knight – Grass, brambles, weeds, a few crab apple, thorns, and small black cherry trees.  
 E. Fuller – Grass, brambles, weeds, thorn scrub, a few large trees.  
 F. Moulthrop – Grass, brambles, weeds, thorn scrub, pear and apple trees, seedling ash and cherry.  
 G. Hellwig – Tall grass, brambles, scrub thorn, dense thorns and apples 5-15 feet.

Underscoring – indicates where greatest density of species occurs.

	A	B	C	D	E	F	G
DENSITY (pairs per acre)	0.91	1.0	1.6	1.26	1.55	1.57	3.6
<u>Characteristic species</u>							
Piping Plover	*****						
Spotted Sandpiper	*****						
Killdeer	*****	*****		*****	*****		
Upland Plover		*****					
Horned Lark		*****					
Savannah Sparrow		*****	*****				
Short-eared Owl		*****	*****				
Marsh Hawk		*****	*****	*****		*****	
Bobolink		*****	*****	*****			
Henslow's Sparrow		*****	*****	*****			
Grasshopper Sparrow		*****	*****	*****	*****	*****	
Meadowlark		*****	*****	*****	*****	*****	
Northern Yellowthroat			*****	*****	*****	*****	*****
Bob-white			*****	*****	*****	*****	
Pheasant			*****	*****			*****
Alder Flycatcher			*****		*****		
Woodcock				*****	*****	*****	
Red-eyed Towhee				*****	*****	*****	*****
Yellow-billed Cuckoo				*****	*****	*****	
Robin				*****	*****	*****	*****
Chipping Sparrow					*****	*****	*****
Yellow Warbler					*****	*****	*****
Catbird					*****	*****	*****
Black-billed Cuckoo					*****	*****	*****
Brown Thrasher						*****	*****
Indigo Bunting						*****	
Mourning Dove							*****
Rose-breasted Grosbeak							*****
Blue Jay							*****
Cardinal							*****
Wood Thrush							*****
Green Heron							*****
Blue-winged Warbler							*****
Baltimore Oriole							*****
<u>Cosmopolitan Species</u>							
Vesper Sparrow	*****	*****	*****	*****	*****	*****	*****
Song Sparrow	*****		*****	*****	*****	*****	*****
Field Sparrow	*****		*****	*****	*****	*****	*****
Cowbird	*****		*****	*****	*****	*****	*****
Goldfinch	*****		*****	*****	*****	*****	*****
Flicker	*****		*****	*****	*****	*****	*****

In 1938 studies record a notable increase in cuckoos throughout the region. These are all black-billed cuckoos, except two, as noted below.

Table III

<u>Area</u>	<u>1937</u>	<u>1938</u>	<u>Acres</u>
B2 Fuller	0	4 (1 yellow-billed)	55
B3 Moulthrop	0	3	42
B5 Hellwig	2	1	15
E3 Bole	0	2	75
E5 Walters	0	1 (1 yellow-billed)	65
F Kendeigh	<u>1</u>	<u>0</u>	<u>15</u>
Total	3	11	267

The findings of our census takers are corroborated by general observations, which seem to be to the effect that cuckoos of both species were generally more numerous in 1938 than in previous recent years at least. But no one has an explanation. Perhaps some member of the Club may come forward with one. Is it sun spots or woolly caterpillars?

Reports on Nests of Special Interest

The editor is glad to report that 11 club members reported a total of 44 nests on the blanks sent out in spring for this purpose. These were:

- B. P. Bole, Jr – House Wren (2), Blue-headed Vireo, Barred Owl, Marsh Hawk, Phoebe, Starling, Mourning Dove.
- F. W. Braund – Red-tailed Hawk (7), Pileated Woodpecker (3), Great Horned Owl (2), Barred Owl, Red-shouldered Hawk, Cooper's Hawk, Woodcock, Ruffed Grouse – (with photographs).
- T. D. Johnson – Blue-gray Gnatcatcher (nest collected).
- S. C. Kendeigh – Chimney Swift, Purple Finch - (nest collected).
- C. H. Knight – Bank Swallow.
- C. H. Loughridge, Jr. – Alder Flycatcher – (with photograph).
- P. N. Moulthrop – Ovenbird, Northern Yellowthroat, Brown Thrasher, Black-billed Cuckoo (4).
- D. L. Newman – Ovenbird.
- Sara B. Talbot – Blue-gray Gnatcatcher.
- M. B. Walters – Prairie Horned Lark (2) (with photographs).
- A. B. Williams – Mallard, Upland Plover, Nighthawk, Savannah Sparrow, Henslow's Sparrow – (with photographs).

These reports will be filed permanently with the Museum of Natural History, where Dr. Aldrich is accumulating for study all nesting records for northern Ohio.

---OoO---

In general, the editor feels that the Club lacks working members on the west side. Studies are greatly desired in areas west of the Rocky River. Are there any volunteers for this section next spring?

---OoO---