

A STATISTICAL SURVEY OF THE WINTER BIRD LIFE OF
SOUTHEASTERN OHIO—MUSKINGUM COUNTY

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Little is known of the winter bird life of southeastern Ohio. Of the 427 Ohio Christmas Censuses¹ published in *Bird-Lore* (1900-1934), only twelve were from the fifteen hill counties of southeastern Ohio. Even these few censuses were non-representative of their areas, being taken by single observers during the early years. It seemed desirable to accumulate quantitative data about the winter bird life of this typical hill country and make it available for comparison with better known sections of Ohio.

Muskingum County (Zanesville Region) is typical of this hill country, being mostly of eroded dissected hills 100 to 400 feet in height except for the very narrow valleys of the Muskingum River, the Licking River, and Salt Creek.

The writers have been doing constant field work in this region for nearly a year (1934-1935). On certain days (week-end trips or whenever other work permitted) a careful check was made as to the bird species and the numbers of each encountered during a full day of field work. All parts of the county were covered with perhaps more attention given to the eastern half and to the bottoms of the Muskingum River. The period December 15 to February 15 was taken as the winter season so as to include *only* species actually wintering in the area.

During this period eight days in December, nine in January, and eight in February—a total of twenty-five—were devoted to census work. Usually two observers participated. A typical field day was of eight hours and involved six or seven miles on foot and sixty by auto. In the accompanying table the total number of species recorded is given, the proportion of the twenty-five trips on which each was seen, the average number checked per day, and the rank which that species has been found to have among the winter birds of the whole state. The species are ranked by taking into equal consideration (1) the numbers occurring and (2) the percentage of trips upon which each was found. This has proved to be a more accurate index of abundance than any yet available. For brevity only the common names of the birds are used, the nomenclature being that given by the American Ornithologists Union Check-List of 1931.

¹Hicks, Lawrence E., and Floyd B. Chapman. A Statistical Survey of Ohio Winter Bird Life. *Ohio Journal Science*, 33:135-150. 1933.

A roost of 32,000 Starlings and another of 12,000 Crows, occurring in the county, were observed many times, but only individuals of those two species encountered away from the roosts, were enumerated. The Crows and Starlings have made a decided drain upon many winter food resources ordinarily available to other species.

The total number of individuals recorded on the twenty-five trips was 61,711 or 2,468 per day (of which nearly 2,000 per trip would be Crows or Starlings). Species found to be decidedly more abundant than the average for Ohio¹ included: Starling, Crow, Prairie-horned Lark, Bluebird, Robin, American Merganser, and Cooper's Hawk. Species found to be decidedly less abundant than the average for Ohio were Blue Jay, Song Sparrow, Downy Woodpecker, White-breasted Nuthatch, Hairy Woodpecker, Red-bellied Woodpecker, Flicker, Brown Creeper, Winter Wren, Northern Horned Lark, and Red-headed Woodpecker. The other species approached the numbers expected generally in Ohio or the data were too insufficient to be conclusive.

The total number of species recorded (December 15 to February 15) was sixty-five. This represents 49 per cent of the 133 species enumerated on the 427 Ohio Christmas Censuses¹ to date or 39 per cent of the 167 species on the list of birds definitely known to have occurred in Ohio in winter.²

Many of the semi-hardy winter birds were absent from the region, and only the Robin and Bluebird occurred in the expected numbers. Most conspicuous was the absence of northern visitors such as the Goshawk, Rough-legged Hawk, Northern Shrike, Bohemian Waxwing, Evening or Pine Grosbeak, Purple Finch, Redpoll, Crossbills, Longspurs, or Snow Buntings. Three species rare in winter, the Cedar Waxwing, Killdeer, and Migrant Shrike, were collected for the Ohio State Museum.

The deep waters of the Muskingum River are kept unfrozen at the navigation dams and by the movement of the river barges when operating, making possible the wintering of some waterfowl—all below Zanesville. Many of the raptorial present were attracted to the region of the Starling roost where they could be observed making kills each evening.

This survey covers only one year but should give a fair index to the 1934-1935 winter bird life of Muskingum County if we correct for

¹Hicks, Lawrence E. An Annotated Check List of All Birds Recorded from Ohio in Winter. Ohio Dept. Agr. Bull. Bur. Sci. Res. Vol. 1, No. 2, Jan., 1932. (Revised 1935). Pp. 59-66.

many known factors¹ which cause a species to be enumerated out of proportion to its actual numbers.

Rank of Species Based on Both Numbers and Frequency	Total Number Seen	Percent of Days on Which Seen	Average Number Per Day	Rank of Species in Ohio
1. Starling*	40,347	100	1614.0	12
2. Eastern Crow	8,990	100	359.6	4
3. English Sparrow†	3,057	100	122.3
4. Eastern Tree Sparrow	2,625	100	105.0	1
5. Slate-colored Junco	1,502	100	60.1	5
6. Mississippi Song Sparrow	585	100	23.4	3
7. Eastern Cardinal	582	100	23.3	2
8. Eastern Bobwhite	521	88	20.9	9
9. Prairie Horned Lark	414	88	16.6	35
10. Tufted Titmouse	400	100	16.0	7
11. Carolina Chickadee	394	100	15.8	13
12. Eastern Mourning Dove	341	76	13.6	16
13. Northern Downy Woodpecker	195	100	7.8	6
14. Eastern Bluebird	206	88	8.2	33
15. Eastern Robin	280	72	11.2	20
16. Eastern Goldfinch	215	56	8.6	18
17. White-breasted Nuthatch	98	88	3.9	8
18. Carolina Wren	89	88	3.6	22
19. Northern Blue Jay	59	80	2.4	10
20. American Merganser	187	36	7.5	43
21. Northern Flicker	70	64	2.8	15
22. Common Black Duck	120	32	4.8	28
23. Eastern Sparrow Hawk	39	76	1.6	21
24. Eastern Hairy Woodpecker	35	76	1.4	14
25. Eastern Golden-crowned Kinglet	52	40	2.1	23
26. Red-bellied Woodpecker	24	72	1.9	19
27. Lesser Scaup	56	20	2.24	30
28. Hooded Merganser	29	32	1.2	62
29. Brown Creeper	25	40	1.0	17
30. Eastern Meadowlark	27	32	1.1	27
31. Cooper's Hawk	26	36	1.0	50
32. Eastern Red-tailed Hawk	15	44	.6	31
33. Eastern Belted Kingfisher	16	36	.64	40
34. Ring-billed Gull	23	24	.92	60
35. Marsh Hawk	11	40	.44	38
36. Northern Horned Lark	24	8	.96	24
37. Eastern Screech Owl	13	28	.52	39
38. Red-eyed Towhee	11	32	.44	32
39. Herring Gull	20	16	.80	26
40. Ring-necked Pheasant	9	24	.36	44
41. Common Mallard	11	20	.44	29
42. Barn Owl	8	24	.32	68
43. Eastern Mockingbird	5	20	.20	66
44. Turkey Vulture	5	20	.20	76
45. American Pintail	5	20	.20	74
46. Sharp-shinned Hawk	4	16	.16	55
47. American Goldeneye Duck	4	16	.16	56
48. Eastern Winter Wren	3	12	.12	37
49. Red-headed Woodpecker	4	8	.16	25
50. Northern Pileated Woodpecker	3	12	.12	69
51. Northern Red-shouldered Hawk	2	8	.08	49
52. Cedar Waxwing	3	4	.04	47
53. Great Horned Owl	2	8	.08	58
54. Killdeer	2	8	.08	64
55. Migrant Shrike	2	8	.08	105
56. Barred Owl	2	4	.04	53
57. Ruffed Grouse	2	4	.04	54
58. Eastern Hermit Thrush	1	4	.04	93
59. Eastern Field Sparrow	1	4	.04	71
60. Eastern Vesper Sparrow	1	4	.04	124
61. Pied-billed Grebe	1	4	.04	82
62. Ring-necked Duck	1	4	.04	89
63. Gadwall	1	4	.04	102
64. Bewick's Wren	1	4	.04	77
65. Bronzed Grackle	1	4	.04	41

*Recently introduced. Not present for whole period.
 †Not enumerated.

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