Distribution and Ecology of Ohio Birds

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A typed partial draft of this paper, containing emendations in Jones's hand, was found in a box of material bought at auction in 2002. From the date on an uncompleted letter on the back of one of the pages and some internal evidence, we can ascertain only that its composition took place on 28 September 1923 or not too long later that year.

Jones was then in his 60s, a distinguished faculty member at Oberlin and author of scores of ornithological publications, and while this paper is only a draft, and far from complete, it may be regarded as reflecting his maturer opinions; it is a pity we don't have more of it.
—Ed.

Before the advent of civilized Man Ohio was covered with deciduous forest, with a sprinkling of pine and cedar and hemlock in the rough eastern section that lies within the Transition Life Zone, and along the shore of Lake Erie and in the narrow deep valleys of the streams that flow into the lake. There was a small area of grassland in the north-western counties, and some of the larger peat bogs, like Big Spring Prairie[1], made openings in the forest. There were a few small lakes in the lake Erie water-shed. After more than a century of occupation by civilized Man the forest has been reduced to less than one fourth of its original area, and even what remains is in scattered groves, with no large bodies of standing timber. The water bodies have been added to by the creation of reservoirs, but these add very little to the water areas. Of course the forests have been replaced by cultivated fields and cleared pastures.

These profound changes in habitats of birds have been accompanied by changes in the bird life of the state in two directions. Of the forest birds the passenger pigeon, Carolina paroquet, and swallow-tailed kite are no longer found in the state, and the wild turkey, ruffed grouse, and northern pileated woodpecker seem doomed to go[2]. Of the grassland habitants the prairie chicken has gone, and several of the shore-birds have become scarce. Of those preferring aquatic habitats the sandhill crane, whooping crane and trumpeter swan have gone, and most of the other species are greatly reduced in numbers. It is not possible to tell whether or not the smaller forest birds have decreased in numbers proportionately with the decrease of the forests, but it

[1] North and west of Carey in Wyandot County, extending largely into Seneca and Hancock counties, Big Spring Prairie may once have been a primordial lake that evolved into marsh, then prairie openings.

[2] Twenty-seven years later, Williams, in *Birds of the Cleveland Region*, reported that the woodpecker had rallied as new park systems protected forests. After 1914, woodpeckers could not be legally hunted.

seems likely that most of them have not. Virgin forests, especially beech forests, are comparatively poor in bird life. But the small groves that remain seem to be richer in bird life than the average, as though the birds were accommodating themselves to restricted [*sic*] quarters by more crowding. Nevertheless there can be little doubt than an actual reduction in numbers has taken place. About a score of species have so adapted themselves to man made conditions as to become familiar about our dwellings and in our parks, and the number is increasing.

As fast as the forests gave place to open spaces the birds of the open country came in, mainly from the west and south-west, and today they make up the largest part of our birdlife.

There is another shifting of the birdlife of the state that seems to be wholly independent of the changes wrought by Man. I called attention to this twenty years ago, in the ["]Revised Catalogue of the Birds of Ohio" [1903:13-20]. It was then based upon a comparison of my own findings with those of Dr. J. M. Wheaton, in his *Catalogue of the Birds of Ohio*, published in 1882. I have recently found published records of the work of Dr. J. P. Kirtland, 1859, which adds to the material upon which comparisons can be based. This movement might be called the continuing post-glacial northward movement. It is certain that very little if any of Ohio could have been occupied by birds at the time of the furtherst [*sic*] southward extension of the great ice sheet, because most of the state lay under the ice, and the remainder of it seems to have been pretty well flooded. The only possible direction from which invasion could have taken place was from the southward and the southwestward. The invasion must have followed the north-eastward retreating ice. The evidence for believing that this movement has not yet ceased is that ten species known in Dr. Kirtland's time only as southern Ohio birds have by this time extended their range nearly or quite across the state, while three species, the painted bunting, blue grosbeak and Bachman's sparrow, have entered the state and are now regular summer residents in the southern counties.[3] These have come in during the last twenty years. Along the northern border the black-throated green and chestnut-sided warblers and the purple finch and white-throated sparrow were reported as regular breeders by Dr. Kirtland, but now they are not found breeding except on rare occasions and in particular places. These are striking instances of a slow but persistent northward movement of the bird life of the state, but they do not constitute all of the evidence. Robins, bluebirds, towhees, bronzed grackles and belted kingfishers are now regularly found all winter long in the northern part of the state, and several other species occasionally remain all winter. They have extended their winter range northward since 1890. Others of similar [*one indecipherable word*] could be cited.

At least three hypotheses might be suggested to explain this northward shifting of the birds: The first is that the forces that brought about the retreat of the ice sheet have not yet ceased their action. But this postulates a progressively warmer climate, and there seems to be no good evidence that this is the case.

The second is that there is still the competition for room and for food, during the breeding season, that must have occurred in the south-east during the Glacial Epoch and later, thus forcing individuals to seek new regions if they were to survive and propagate in the struggle. And the third grows out of the last: the northward ranging individuals of the species, because of their daring in seeking unfamiliar breeding grounds, possess characters that make them more efficient and more resistant to the colder climate of the north. It seems to be a general rule that the north-ranging individuals of a species are larger and longer of wing than are the southern ranging individuals. [*The MS ends here.*]

[3] This is an intriguing trio of species to mention for this purpose. Lawrence Hicks (*Distribution of the Breeding Birds of Ohio*, 1935:178) does remark of the sparrow that "it seems reasonably certain that this species has invaded the state from the south and southwest during the last half-century." He treats the grosbeak only in a table that shows it as a possible breeder in West Virginia. Only in 1940 did Hicks announce the first blue grosbeak breeding record, in Adams County (*Auk* 62(2):314), where he says "...Jones...did not list the Blue Grosbeak as an Ohio bird," but see Jones (1903:227). Of the bunting Hicks has nothing to say. Jones, in *The Birds of Ohio: A Revised Catalogue* (1903), in the context of saying "...there has been a very perceptible movement of many species northward or north-eastward during the past two decades," asserted "[t]here is some indication of an invasion of the Blue Grosbeak and Nonpareil [another common name for *Passerina ciris*] soon [15]." Later in the same work [227] he mentions that E. L. Moseley had reported a painted bunting from Sandusky but it was likely an escaped cage bird (apparently it was another that appeared in Moseley's USDA bird reports for 18 May 1907, "1/4 mi. n. of Mill Hollow, e. bank of Vermilion River"). Where Jones found his evidence that painted buntings were regular summer residents of southern Ohio is a mystery.

Short Note: The Percentage of Adult American Herring Gulls in Cleveland having one vs. two Subapical Spots

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The number and size of subapical spots on the wingtips of large gulls is often used as an aid for separating species, subspecies, and age classes. Field guides to North American birds have consistently depicted adult American herring gulls *Larus argentatus smithsonianus** with two subapical spots - one on the longest, outermost primary (P-10) and another, usually smaller, on the adjacent second-longest primary (P-9). These spots are usually surrounded by black, and are often called "mirrors" by birders.

As recently as Sibley's 2000 guide, there has been no mention of variability in the number of subapical spots in adult American herring gulls. In 2001 Bruce MacTavish and Lars Jonsson noted that 90% of adult-plumaged herring gulls in the Niagara region lacked a subapical spot on P-9. This is unlike herring gulls found in Newfoundland, where <15% lack a P-9 mirror (Adriaens and Mactavish, 2004) and along the East Coast from Massachusetts to Virginia, where 20-30% are estimated to lack this mirror (Olsen and Larsson, 2003).

I was unaware of these observations when I began to notice that a high percentage of otherwise adult-plumaged herring gulls in Cleveland displayed only one subapical spot. Beginning in 2003, I often spent several hours a day between January and March studying adult herring gull wingtip patterns, mostly at E. 72nd Street on the Cleveland lakefront. In many cases I videotaped the gulls and later reviewed the video to determine the wingtip patterns. I also examined specimens in the collection of the Cleveland Museum of Natural History. From my sample of 114 adult-plumaged herring gulls, 82 (71.9%) had only one subapical spot. I took care to make sure that the birds I studied were in fully adult plumage, with pure white tails and clear adult gray mantles.

Percentage of adult-plumaged herring gulls in Cleveland (winter and early spring) lacking a subapical spot on P-9 ("one-spotters")

2003: 8 of 11 (72.7%)
2004: 11 of 17 (64.7%)
2005: 60 of 82 (73.17%)
CMNH collection: three of four adults from Cuyahoga. and Lake Counties. (75%)
(Four additional local specimens in CMNH were molting the primaries when collected, so the presence of subapical on P-9 was not determined.)

More observations of variation in wingtip pattern on the breeding grounds might help us determine the origins of herring gulls wintering in Cleveland. "One-spotters" might dominate in either the Midwest or Western Arctic breeding populations. These observations also demonstrate the pitfalls of applying European-based identification literature to North American gulls. Since 1982, Peter J. Grant's work on gull identification has been the standard reference for American gull watchers.