



Changes in bird life at the western end of Lake Erie

Harold F. Mayfield

photographs by Frank K. Schleicher

Part II of III

Settlement Period (1820–1890)

MAJOR CHANGES BROUGHT BY settlement were the cutting of the forests and the draining of land so it could be farmed. A secondary consequence of agriculture was the flow of silt into streams, with destruction of many aquatic plants that attracted vast numbers of waterfowl. The turning of prairies into farmland also destroyed grassy ponds and sloughs that had provided nesting sites for ducks and other water- and marsh-dwellers. However, in destroying the original wilderness, the pioneers created openings with shrubby edges and close-cropped meadows where domestic animals grazed. Every cultivated field was bordered by woods or fencerows grown thickly with weeds and bushes. The grazed tracts in particular were a completely new feature of the landscape, and these brought in a new set of birds.

Birds lost directly from human pressure

The increasing human population put immediate pressure on larger birds that were shot for sport and food. They included the Greater Prairie Chicken (*Tympanuchus cupido*), Ruffed Grouse (*Bonasa umbellus*), Wild Turkey (*Meleagris gallopavo*), Passenger Pigeon (*Ectopistes migratorius*), Sandhill Crane (*Grus canadensis*), Whooping Crane (*G. americana*; possibly), and Common Raven, (*Corvus corax*).

The most abundant of the game birds here was the Greater Prairie Chicken, which thrived in the wet prairies. It was a bird everyone knew. Its bones appeared in pre-Columbian Indian sites (Mayfield 1972), and it ventured even into the pioneer villages. More than 500 were reported within the settlement located near the center of downtown Toledo between 1835 and 1840 (Potter 1870), a time when it was abundant also in southern Ontario (Snyder 1957).

Equally sought for the table and market was the Ruffed Grouse, a bird of the forest. Probably it benefited at first from the partial opening of the dense woodland but finally suffered from the reduction of forest and the increase of hunting pressure. By 1870 it had declined greatly from its former abundance (Potter 1870), but it held out in the oak openings and the Catawba Peninsula briefly after 1900 (Campbell 1968).

A prized game bird while it lasted was the Wild Turkey. A flock of 12 was seen as late as 1869 on the edge of expanding Toledo (Potter 1870), and they continued to flourish in the wooded portions of the county for more than a decade, but last nested here in 1890 (Campbell 1968). The last brood in southeastern Michigan was noted in 1888 (Cook 1893).

The Passenger Pigeon occurred in enormous numbers here as elsewhere in the eastern deciduous forests. We have no local record of their breeding, but on March 5, 1860, the Toledo Blade reported "clouds of pigeons" flying over the city. The last report in northwestern Ohio came in 1885 (Campbell 1968), the same year they were seen in southeastern Michigan (Cook 1893). This species, which had been the most abundant bird on earth (three to five billion), was still abundant in the Midwest into the 1870s, but was virtually gone by the end of the century. The bird was exter-

minated by the persistent breaking up of their nesting colonies by market hunters, and the last individual died in the Cincinnati zoo in 1914 (Schorger 1955).

Sandhill Cranes continued to nest in the prairies of the oak openings of Ohio until about 1885 (Campbell 1968), of Michigan until 1896 (Trombley 1897, Notes), and the marshes of Lake St. Clair in Ontario until 1888 (Snyder 1957). This region became unsuitable for cranes as a result of the draining of inland marshes as well as human disturbance.

The Whooping Crane, which formerly nested widely in the wettest portions of the northern grasslands, was almost certainly a migrant, if not a nesting bird here, in the days of its general abundance. The early reports are uncertain because there was confusion between the two crane species, and because egrets were often called cranes by inexperienced observers. Both Audubon and Kirtland thought the brown cranes (Sandhill) were immatures of the white cranes (Whooping). Modern authors generally have not admitted this species to the lists of birds of Ohio and Michigan for lack of specimens. Yet it is difficult to ignore sightings in both Michigan and Ohio in the last century, when the bird was seen in numbers in Indiana, where it probably bred (Wheaton 1878; Barrows 1912; Mumford and Keller 1984). In view of the extent of our wet prairies, it would have been surprising not to find the Whooping Crane here.

The Common Raven was lost not from hunting but from the disruptive influence of increasing human presence. It was supplanted by the American Crow (*Corvus brachyrhynchos*) along the southern shore of Lake Erie in the early 1800s, according to Alexander Wilson (Wheaton 1878), and the reversal of their roles was completed about 1860 according to Trombley (Cook 1893). The raven can be very bold in gathering its food, but it requires solitude for its nest. The crow is much more tolerant of human disturbance.

Birds lost through habitat changes

Some birds have been eliminated, not directly by the hand of man, but indirectly through habitat changes. This list includes the American Swallow-tailed Kite (*Elanoides forficatus*), Pileated Woodpecker (*Dryocopus pileatus*),

Brown Creeper (*Certhia americana*, nesting), Yellow-bellied Sapsucker (*Sphyrapicus varius*; nesting), Black-and-white Warbler (*Mniotilta varia*, nesting), and Yellow-throated Warbler (*Dendroica dominica*; nesting).

The American Swallow-tailed Kite was lost with the prairie. In 1810 Kirtland said, "Flocks of a dozen or more might occasionally be observed over fields of dead and girdled timber and diving down to capture garter snakes, then numerous in all our partially cleared fields." In 1863 he wrote, "Still common on the prairies." (Christy 1936) The only positive record for this region was a male and female taken near Petersburg, Michigan, on June 19, 1882 (Trombley 1882).

As a group we would expect the woodpeckers to suffer most from the destruction of the forest, and indeed those species that require large tracts of unbroken woodland were totally eliminated. In an earlier time when mature forest covered most of Ohio and Michigan, the Pileated Woodpecker was common everywhere, but with the reduction of woods to small patches, these woodpeckers disappeared. They were virtually gone from northwestern Ohio by 1878 (Wheaton 1878) and from southeastern Michigan by 1887 (Cook 1893). Their decline was probably hastened because they were also taken for food (Moseley 1947). They retreated to the large forests of northern Michigan and the Appalachian Mountains, but lately have returned to the maturing timberlands of southeastern Ohio where farmlands have been abandoned. Occasional sightings, including a breeding record in 1976, hold out hope of their eventual return to this region.

Another bird of the deep forest, the Brown Creeper, regarded only as a winter visitor here now, although occasionally noted in summer, probably nested in southeastern Michigan into the 1850s. At that time it "could be heard singing on all sides" during the summer, although Trombley (1897, Reports) did not find the nest, which is usually well concealed beneath a slab of bark.

The Yellow-bellied Sapsucker was the most abundant nesting woodpecker in this area until about 1892, but within five years after that date it had diminished greatly (Trombley 1897, Reports). It too has retreated to nesting grounds in the big woods of northern Michigan, although still common here as a migrant.

Another nesting bird that seems to have suffered from a general reduction in forest cover is the Black-and-white Warbler. Late in the last century Trombley noted “. . . from being a common summer resident has become a very rare bird” (1897, Reports). A few still nested in the oak openings of Ohio until about 1949 (Campbell 1968). It is now known here only as a migrant.

A somewhat parallel case is that of the Yellow-throated Warbler. In this region it is near the northern limits of its range, but it nested regularly in the tall sycamores along the Raisin River of southeastern Michigan until near the end of the century (Trombley 1897, Reports). It still nests sparingly in southwestern Michigan (Payne 1983) and in the southern counties of Ohio (Thomson 1983), but is seen here only occasionally as a stray.

Birds reduced in numbers through loss of forest

We can speak with some assurance about birds that have vanished, but the evidence is not so clear concerning birds that have declined but are still here. None of these species have been censused, and we have to depend on not-always-reliable impressions recalled from memory. However, there is no doubt that all birds of the deep forest and grassy wetlands have declined with the reduction of these habitats. Indeed, we can be sure that the populations have declined even more than the habitats, because we know that many birds require large tracts of a certain kind and are not attracted to fragments.

Fortunately for history we have the word of an expert egg-collector who was active through the last half of the nineteenth century, when settlement was in progress. This important observer was Jerome Trombley (spelled “Tremblly” by Wheaton) of Petersburg, Michigan (Mayfield 1970).

Leading the list of nesting birds that have declined with a shrinking forest are the following: American Woodcock (*Scolopax minor*), Whip-poor-will (*Caprimulgus vociferus*), Least Flycatcher (*Empidonax minimus*), Cerulean Warbler (*Dendroica cerulea*), American Redstart (*Setophaga ruticilla*), Louisiana Waterthrush (*Seiurus motacilla*), Hooded Warbler (*Wilsonia citrina*), Golden-winged Warbler (*Vermivora chrysoptera*), Wood Thrush (*Hylocichla*



mustelina), Ovenbird (*Seiurus aurocapillus*), Eastern Wood-Pewee (*Contopus virens*), Scarlet Tanager (*Piranga olivacea*), and Rose-breasted Grosbeak (*Pheucticus ludovicianus*). Some of these call for detailed comment.

A game bird that thrived in the deep shadows of the swamp forest was the American Woodcock. A few still nest here in moist woodlands, but the numbers do not compare with those of earlier times. Two hunters shot 75 in four hours near the mouth of the Maumee River in 1844 (Potter 1870). Another bird of the deep forest that every pioneer

knew for its loud voice in the night was the Whip-poor-will. It was common everywhere until the 1880s when it became restricted to the relatively undisturbed oak openings (Trombley 1897, Reports). Now even there it has become reduced to a few pairs in summer, although it is seen regularly on its migration to and from northern woodlands (Campbell 1968).

Other birds that have retreated north include the Least Flycatcher, which once nested commonly in the oak openings and is still seen occasionally there in summer (Campbell 1968).



Trombley (1897, Reports) tells of finding 13 nests in an area of two acres near his home in Petersburg, Michigan.

The Cerulean Warbler was a common summer resident throughout Ohio when tall trees covered most of the land (Wheaton 1878), and it was the most abundant nesting warbler in southeastern Michigan in the early 1880s, but it had become scarce by the end of the century (Trombley 1897, Reports). Several small colonies persisted near Toledo into the 1930s, and occasional pairs may still nest in Secor Park and Wildwood Preserve west of Toledo (Campbell 1968). It is still found in summer wherever large woodlands grow in Ohio, particularly in the eastern part of the state (Thomson 1983), and in southern Michigan (Payne 1983).

The American Redstart was much more numerous before 1890 (Trombley 1897, Reports) and continued to decline later (Campbell 1968). Similarly, the Louisiana Waterthrush was a common nesting bird in wet woodlands before 1890 (Trombley 1897, Reports), but only one or two have been found nesting since that time (Campbell 1968). The Hooded Warbler was formerly much more common than now. A few nested in northern Ohio every year (Wheaton 1878), and Trombley called it "quite common" in that same period (Cook 1893), but after labeling it "common" in his report of 1884, he did not list it in any of his formal reports from 1885 to 1897. It has been very rare as a nesting bird since that time in south-

ern Michigan (Payne 1983) and northwestern Ohio (Campbell 1968).

An interesting case is presented by the two closely related warblers, the Golden-winged and the Blue-winged (*Vermivora pinus*). As the character of the oak openings has changed through drainage, the role of these species has reversed. Originally the Golden-winged was common and the Blue-winged was rare. Now the opposite is true. Trombley (1897, Reports) noted the decline of Golden-winged Warblers as early as 1890 and saw only three Blue-winged in more than 30 years. This situation prevailed into early decades of this cen-



tury. Now both species are rather scarce but the Blue-winged predominates. The species of more southerly range has survived while the bird of more northerly distribution has dwindled.

With the breaking up of large wooded tracts, Trombley believed Ovenbirds had declined by two-thirds and Eastern Wood-Pewees by one-half (Trombley 1897, Reports). Scarlet Tanagers were declining through the last decades of the century (Trombley 1897, Reports), and that decline has continued (Campbell 1968), although a few still nest in the oak openings. A similar trend has been noted for the Rose-breasted Grosbeak, Veery (*Catharus fuscescens*), and Wood Thrush (Campbell 1968).

Birds reduced through loss of wet grasslands

It is difficult to be precise about the birds that inhabited the original wet prairies, because no true examples of that habitat remain. Rails, all of which are now scarce here, probably thrived, especially the King Rail (*Rallus elegans*), Virginia Rail (*R. limicola*), and Sora (*Porzana carolina*). We can imagine that the Red-winged Blackbird (*Agelaius phoeniceus*) flourished, but we have doubts if many familiar birds of open country today, like the Eastern Meadowlark (*Sturnella magna*), found the towering grasses and wet footing to their liking. Sedge Wrens (*Cistothorus platensis*) have probably declined severely.

Grassy pools within the prairies, as well as the borders of bays and streams at Lake Erie, were a haven for nesting and migrating ducks in pioneer days. Every early writer exclaimed over the countless waterfowl to be seen at Maumee Bay, Sandusky Bay, and Lake St. Clair. These concentrations were probably matched at few places on this continent. Many Canada Geese were shot here, but they did not breed locally, according to Potter (1870). A major habitat disaster was the total loss of wild rice in these waters.

Birds benefitting from short-grass clearings

All has not been lost through changes brought by the white settlers. A major consequence was the creation of a new kind of habitat, namely, expanses of short grass. These brought a new set of birds, mainly from the western grasslands. Grazed meadows and hay fields were suitable for birds of the open country that probably would not have been attracted to the small clearings of the Indians, swales in the forest, or the tall grass of the wet prairies. This list includes the Bobolink (*Dolichonyx oryzivorus*), Grasshopper Sparrow (*Ammodramus savannarum*), Lark Sparrow (*Chondestes grammacus*), Eastern Meadowlark, Horned Lark (*Eremophila alpestris*), Vesper Sparrow (*Pooecetes gramineus*), Dickcissel (*Spiza americana*), and Brown-headed Cowbird (*Molothrus ater*).

The first Bobolink in southeastern Michigan was recorded in 1872 (Cook 1893), the first Grasshopper Sparrow in 1885 (Trombley 1897, Reports), and the first Lark Sparrow at about the same time (Cook 1893). Trombley judged that these two sparrows were about equal in numbers in his time, but both have declined in more recent years with a reduction in grazing lands. There were only two records of the Grasshopper Sparrow in Ontario prior to 1886 (Snyder 1957).

Some grassland birds were present early in the settlement period, but they could not have been numerous. Prime candidates for such speculations are the Eastern Meadowlark, Horned Lark, and Vesper Sparrow. All appear on the first check-lists of the birds of Ohio (Kirtland 1838) and Michigan (Sager 1839). The Horned Lark, however, was probably known only as a winter visitor and not

as a nesting bird in the early days (Moseley 1947), reaching southern Ontario about 1868 (Snyder 1957).

A puzzling open-country bird is the Dickcissel, which has fluctuated widely in numbers in recorded history. In 1893 it was a "recent arrival . . . but common in some localities" in Michigan (Cook 1893). In 1891 it nested in Monroe County, but then it vanished, to reappear in the 1920s and 1930s. For a few years it was common and then again dropped back almost to the vanishing point (Campbell 1968).

The Brown-headed Cowbird presents a particularly interesting case. It originally inhabited the grasslands of the midcontinent, where it followed the herds of bison, eating insects stirred up by the moving animals. When the pioneer farmers cleared the eastern forests, their pastures and farm animals approximated the conditions of the West, and the surrounding forest and scrub provided a great variety of small birds to serve as hosts for their eggs and young. The cowbird responded to these new opportunities rapidly and spread into eastern regions so quickly that most settlers did not realize it had not always been there.

In 1838 Kirtland had not yet seen the cowbird, although he had heard about it when he wrote the first check-list of the birds of Ohio. In Michigan a year later Sager (1839) put it in the state list without comment, but a diligent observer in Ontario did not find it in 24 years of field work prior to 1840 (Snyder 1957). However, by 1853 people in Ohio had noted a "great increase" (Wheaton 1878), and by 1864 Kirtland

called it "abundant" (Christy 1936). Thus, the record shows that the cowbird increased from zero to abundant in less than 25 years in this region.

Birds benefitting from manmade structures

Some birds prospered not just from the clearing of the land but from manmade structures providing nest sites. This group includes the Common Barn-Owl (*Tyto alba*), Eastern Bluebird (*Sialia sialis*), House Wren (*Troglodytes aedon*), Barn Swallow (*Hirundo rustica*), Cliff Swallow (*H. pyrrhonota*), Purple Martin (*Progne subis*), Chimney Swift (*Chaetura pelagica*), Eastern Phoebe (*Sayornis phoebe*), and House Sparrow (*Passer domesticus*).

The bluebird probably nested in cavities on the forest edge in former times, but it found ideal nesting sites in rotting fence posts and old orchards riddled with woodpecker holes and bordered by fields and pastures. One writer in the last century said the bluebird was the one small bird every farm boy knew. This is no longer true today. The few remaining bluebirds in this region are found in the oak openings where nesting boxes have been put up for them. The absence of wood fence posts and competition for nest cavities from European Starlings, *Sturnus vulgaris*, as well as changed farming practices have contributed to the decline of bluebirds in this century.

Old-fashioned barns and barnyards were a boon to swallows. The open doors and eave spaces allowed Barn





Swallows easy access to horizontal beams to support their nests. While Barn Swallows used the interior of farm structures, Cliff Swallows used the outside. They gathered mud for their nests from the nearby barnyards and glued them under the eaves. (Once they were called "Eave Swallows.") This swallow, always abundant in the West, was first reported in Michigan in 1879 (Wood 1951) and within a few years became common throughout the state (Cook 1893) and also in Ohio (Wheaton 1878). In modern times it has declined rapidly, perhaps as a result of the general practice of painting barns, which made it difficult for the swallows to attach their nests (Campbell 1968). Similarly, wood bridges were perfect for the nests of Eastern Phoebes.

Few people realize the House Wren was not here in primeval times. It was not listed on the first check-list of the birds of Ohio (Kirtland 1838), but it moved in quickly with the settlers.

Chimney Swifts originally used hollow trees for roosting and nesting, but after the settlers brought stone chimneys, the swifts abandoned hollow trees almost completely. They are now more numerous than in wilderness days.

The House Sparrow, a bird abundant in western Europe, was released widely in the United States in the belief it would help control insect pests. Instead,

it became a pest. In Ohio it was imported to at least eight locations between 1869 and 1882 (Jones 1903). It thrived in barnyards and city streets, eating grain fed to horses and nesting in cavities in buildings. It first appeared at Kirtland's farm five miles west of Cleveland in 1876 (Christy 1936). In the period 1870-1875 it spread across southern Ontario (Snyder 1957) and Michigan, nesting at Ann Arbor in 1875 (Wood 1951). In city and farm, although abundant, its numbers have declined in this century along with the decline in horses.

Birds benefitting from increase in forest edge and brush

The settler and lumberman brought a vast increase in the amount of forest edge and brushlands. Every clearing was bordered by woodland or a brushy fence row. These habitats were favorable to birds that previously had been limited to the edges of streams and marshes, scattered openings in the forest, and the vicinity of Indian villages. Now these habitats had been multiplied many times, and the birds favored by them include the Northern Bobwhite (*Colinus virginianus*), Northern Cardinal (*Cardinalis cardinalis*), and probably a number of other birds.

The bobwhite may have thrived on the edge of the wet prairies, but found conditions even more to its liking in the gardens and fields of the settlers. About 1840 Potter (1870) saw "more than a thousand. . . . The ground was literally covered with them for several squares . . . near the foot of Elm Street [in Toledo]." This is not far from the present heart of the city. At this same time it was at its maximum in southern Ontario (Snyder 1957). The bobwhite remained abundant until about the turn of the century, when a decline began that seems to have accelerated in recent decades.

The Northern Cardinal moved into Ohio and Michigan from the South, and its progress was well noted because of its bright color and loud song. Although it had been reported in both states in the 1830's, these very early records are discounted because it was popular as a caged bird and a few escaped (Wheaton 1878; Burns 1958:19-21). It reached the western end of Lake Erie about 1880, when it was collected in Monroe County and seen regularly in succeeding years (Trombley 1884, Reports), although not in Ann Arbor until more than a decade later (Cook 1893). The first nest was found in southeastern Michigan in 1891 (Trombley 1891, Reports) and in southern Ontario in 1901 (Snyder 1957), and since that time the bird has spread steadily northward. It is now abundant in this region, perhaps helped to winter by the seeds and berries of ornamental shrubs around dwellings as well as the modern proliferation of feeding stations.

There are other birds that flourish today so much better in thickets and second growth than in dense woodlands that we suspect they must have benefited from human settlement: Black-billed Cuckoo (*Coccyzus erythrophthalmus*), Yellow-billed Cuckoo (*C. americanus*), Alder Flycatcher (*Empidonax alnorum*), Willow Flycatcher (*E. trailii*), American Robin (*Turdus migratorius*), Yellow Warbler (*Dendroica petechia*), Indigo Bunting (*Passerina cyanea*), Rufous-sided Towhee (*Pipilo erythrophthalmus*), Chipping Sparrow (*Spizella passerina*), Field Sparrow (*Spizella pusilla*), and American Goldfinch (*Carduelis tristis*).

This is the second of a three part series. Literature Cited will appear at end of Part III.