Changes in bird life at the western end of Lake Erie

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Part III of III

The Urbanization Period (1890 to the present)

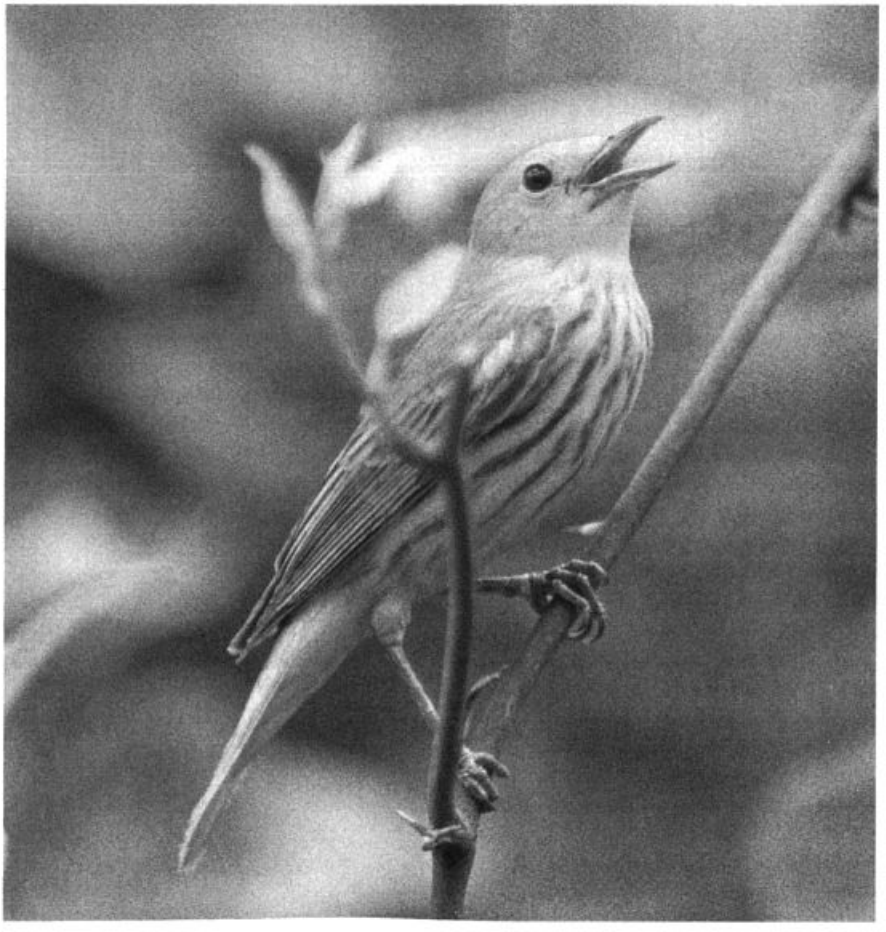
THE MODERN PERIOD HAS BROUGHT changes in farming methods and a great increase in suburban dwelling. The farmers have virtually eliminated brushy fence rows, have employed new chemicals for the control of weeds and insects, and have almost discontinued the use of the horse for farm work and along with it, pastureland. Woodlots have been trimmed and fragmented for homesites. Significant natural areas are now found mainly in parks and marshy preserves along Lake Erie.

This period has been marked by three major changes, a further decline in woodland and marsh species, a precipitous drop in recent years in birds of short grasslands, and the entry of several exotic species in this region. A mere check-list of species present does not reveal the extent of these changes, except in the additions of exotics. I have the annual list of the Toledo Bird Study Club for 1908, and in terms of species it reads like a modern list, but in terms of abundance there have been many changes in 80 years.

Birds of woodland and marsh

Particularly distressing has been the continued decline of birds that nest in large forested tracts of North America and winter in the Caribbean and Latin America—the neotropical migrants (Wilcove and Whitcomb, 1983). Although this trend was first noted a century ago, its significance was not fully grasped until recent decades. We do not fully understand the factors involved, but they involve subtle effects of the fragmentation of forest stands on North American breeding grounds and the shrinking of tropical forests on the wintering grounds.

We believe that nearly all of the warblers, vireos, and thrushes that were formerly common nesting birds in this region have declined seriously in modern times, but detailed measurements of earlier populations are usually lack-



Yellow Warbler

ing. In this region our best evidence for this century comes from the field notes of Louis W. Campbell (1974) who has recorded the number of birds seen in field trips in the oak openings since the 1920s. To measure the changes he has grouped his records into five-year periods. Some of the most striking declines from 1928–1932 to 1970–1974 are as follows: Black-and-White Warbler (100%), Yellow Warbler (85%), Cerulean Warbler (90%), Ovenbird (50%), common Yellowthroat (*Geothlypis trichas*) (80%), Yellow-breasted Chat (*Icteria virens*) (80%), and American Redstart (95%).

The extent of the marshlands along Lake Erie has been stabilized in recent years by the establishment of state and national preserves, but many birds dwelling there have become unaccountably scarce. These include the American Bittern (*Botaurus lentiginosus*), Least Bittern (*Ixobrychus exilis*), Virginia Rail and King Rail. All of these were common nesting birds up until the 1950s (Campbell 1968), and are now rare. The King Rail, which has now almost vanished, was more common than the numerous Virginia Rail before the turn of the century (Trombley 1886, Reports).

Decline in grassland birds

The birds that prospered most from the clearing of the forest and the creation of fields by the pioneers a century ago have declined precipitously in recent years (Campbell 1985). This dwindling of grassland species is more than a local phonomenon. Apparently it has been occurring at the same time over a wide area of the Midwest. Censuses were conducted broadly across Illinois in 1957 and 1958 and then repeated in 1978 and 1979 (Anon. 1983). This 20-year span revealed startling declines as follows: Bobolink (97%), meadowlark, two species (84%), Dickcissel (96%), Grasshopper Sparrow (96%), Savannah Sparrow (98%), Henslow's Sparrow (94%).

This quiet decline has proceeded almost without notice in this area and many others. Probably a major factor has been a loss of breeding habitat with the virtual elimination of the horse on farms along with their pasturelands and hay fields.

The status of the Red-shouldered Hawk (*Buteo lineatus*) and Red-tailed Hawk (*Buteo jamaicensis*), has reversed in recent decades. This change was documented by studies in Washtenaw County, near Ann Arbor, Michigan, in the 1940s (Craighead and Craighead 1956). They found the Red-shouldered outnumbering the Red-tailed about ten to one, but in a little more than a decade they found that ratio reversed. Was it because the Red-shouldered ate more reptiles, amphibians, and crayfish (Craighead and Craighead 1956), which carried a heavier load of pesticides than the mammals and larger birds consumed by the Red-tailed Hawk? Yet in this same period of time the bird-eating Cooper's Hawk (*Accipiter cooperii*) also have become rare as nesting birds here (Campbell 1968).

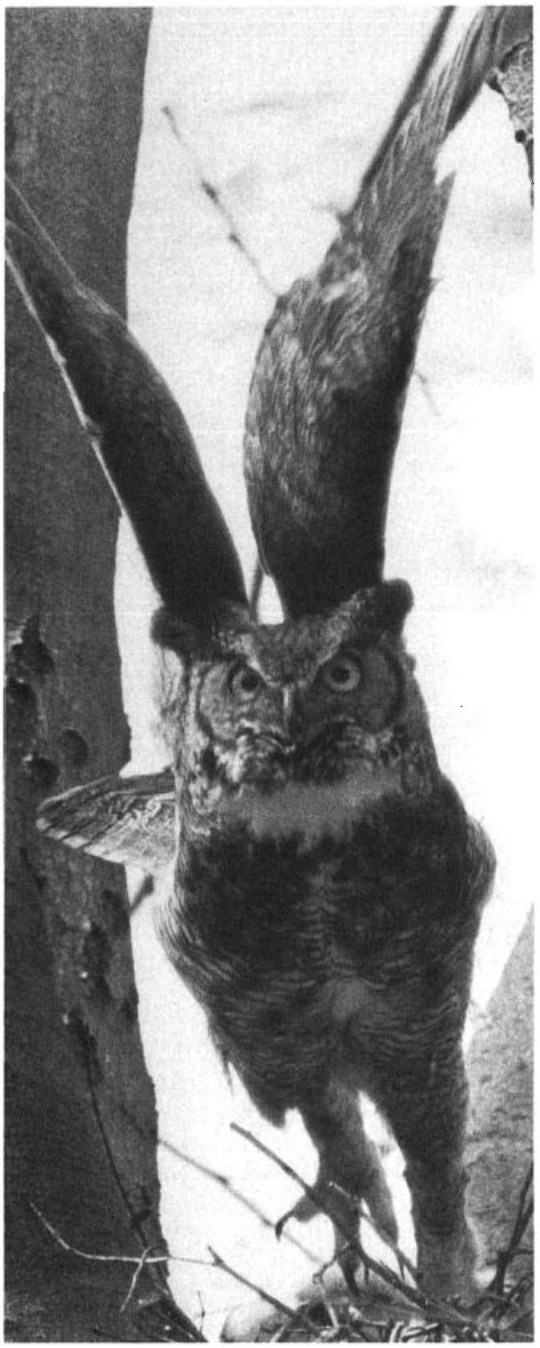
A somewhat parallel change has occurred in two of the large owls. The Barred Owl (*Strix varia*), a bird of the deep woodlands, has almost vanished, and the Great Horned Owl (*Bubo virginianus*), of the semi-open country, has thrived. Meanwhile, the Common Barn-Owl has almost disappeared (Campbell 1985).

Loggerhead Shrikes (*Lanius ludovicianus*) nested commonly here up until the 1940s but have been rare since that time (Campbell 1968; Campbell 1985). The cutting of osage-orange hedges, their favorite nesting sites, along with

Right: Red-tailed Hawk

the elimination of weedy pastures, their favorite feeding grounds, and the increased use of insecticides, may account for the disappearance of these birds locally.

American Crows are still such familiar nesting and migrant birds that many people have forgotten how much more abundant they were 40 years ago. At that time seasonal roosts sometimes held thousands of birds, and clubs were formed to hunt crows. One man claimed to have shot 6000–7000 each year (Moseley, 1947:31). More than 21,000 were reported on the 1956 Toledo Christmas Bird Count. Hunting pressures and chemicals on farmers' fields are possible causes of their decline. However, crows have increasingly learned to use wooded residential areas for their nests.



Great Horned Owl

When extensive tracts of original forest remained, the Red-bellied Woodpecker (*Melanerpes carolinus*) was common here. In southeastern Michigan it declined almost to the vanishing point between 1877 an 1897 (Trombley 1897, Reports) and was virtually absent from this region until about 1960 (Campbell 1968). Then, presumably in response to enormous numbers of dead trees suddenly available as a result of the Dutch elm disease, the Red-bellied Woodpecker had a resurgence here, and it remains a regular resident in small numbers.

Miscellaneous changes of recent decades

Some notable changes of recent times may not fit neatly into the broad patterns I have outlined.

A major event has been the population explosion among blackbirds. The Red-winged Blackbird (*Agelaius phoeniceus*), formerly regarded as a bird of the marshes, has become an abundant nester on agricultural lands and in huge flocks has become a nuisance to farmers at harvesting time. At the same time the Common Grackle (*Quiscalus quiscula*), formerly nesting mainly along streambanks where broken stubs provided platforms, now have invaded ornamental evergreens in residential neighborhoods and various manmade structures such as bridge girders. This widespread increase in blackbirds has brought problems to the South, where enormous roosts occur in winter.

Some puzzling reversals in status between related species have occurred in recent times. American Black Ducks (*Anas rubripes*), once the most numerous breeding species of duck here, have declined sharply in recent decades, and this has brought the Mallard (*Anas platyrhynchos*), into much greater prominence locally, although both species are still common at all seasons. No habitat changes are apparent here (Campbell 1985).

The Red-headed Woodpecker (*Melanerpes erythrocephalus*), according to Wheaton (1878), was the "most abundant and best known" of the woodpeckers of Ohio during the settlement period, and it was the only woodpecker Trombley (1884–1897, Reports) labeled "abundant" in southeastern Michigan It slowly declined from this status in the early part of this century but continues to be present in moderate numbers. We suspect its habit of low flight along roadsides makes it especially vulnerable to impact by high-speed automobiles

The Canada Goose (*Branta canadensis*), known here only as a migrant in the days of settlement, is now a familiar sight at all seasons near the preserves along Lake Erie, where grain is provided for winter food and nesting is encouraged by protection and artificial platforms.

Ring-billed Gulls (*Larus delawarensis*), which were rare on Lake Erie at the turn of the century (Jones 1903), have steadily increased until they outnumber the always-abundant Herring Gulls (*L. argentatus*), at all seasons Both now nest here. A newcomer from the East, the Great Black-backed Gull (*L. marinus*), arrived in the 1920s as a winter visitor (Campbell 1968). It is now common in winter, and a few remain through the summer although it has not yet been found breeding here.

Introduced species

As noted for the previous period, the first exotic bird, the House Sparrow, arrived here more than 100 years ago. The appearance of new species has accelerated in this century. The newcomers include the European Starling, Ring-necked Pheasant (*Phasianus colchicus*), Gray Partridge (*Perdix perdix*), Cattle Egret (*Bubulcus ibis*), and House Finch (*Carpodacus mexicanus*).

The most "successful" of the imports was the starling, which was brought from Europe to the Eastern Seaboard in 1890 and marched steadily westward, reaching this region in about 30 years It was first seen in Toledo in 1921 (Campbell 1968) and southeastern Michigan in 1924 (Wood 1951). It is now abundant at all seasons, nesting in cavities in trees and buildings.

Another foreign import, the Ring-necked Pheasant, had its day here until a gradual decline began in the 1950s (Campbell 1968). This bird was stocked for hunting from 1896 onward, and it was the prime game bird of this area by

1917 Wood County in northwestern Ohio had a pheasant population in excess of 175,000 in the 1930s (Moseley 1947). In recent decades it has declined sharply, and is no longer common except along the Lake marshes. Changed farming practices, with fewer hay fields and brushy fence rows, and increased use of insecticides and herbicides are possible factors.

The Gray Partridge also was introduced repeatedly for hunting. Stocking began in 1909, and the bird persisted through the drought period of the 1930s and then dwindled away (Campbell 1968). It has not been seen now for 20 years

The new bird with a most remarkable history is the Cattle Egret. It is believed to have flown from Africa to South America around the turn of the century and then to have worked its way gradually northward, reaching Florida about 1950 It found a niche for itself in the marshes and grazing lands of this continent, where it gathers large insects stirred up by horses and cattle. It was seen here for the first time in 1960 (Campbell 1968). It now occurs regularly in summer along the marshes of Lake Erie and began nesting on West Sister Island in Lake Erie in 1978.

The most recent newcomer is the House Finch. It is an abundant resident in the Far West and Southwest but did not make its way to the East until illegal shipments to New York were released on Long Island in the 1940s. To the surprise of everyone, it survived the winters and started to spread south and west (Mundinger and Hope 1982). It reached the west end of Lake Erie in 1978 and is thriving here in the evergreens and shrubs of city environments, where it promises to become the common backyard bird.

ACKNOWLEDGMENTS

I would like to express special thanks to Louis W. Campbell, John Stophlet, and Elliot J. Tramer who helped with a critical reading of this manuscript.

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