OBERVATIONS ON SUMMER BIRDS OF WINONA LAKE, WITH A LIST OF SPECIES.

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Winona Lake in Kosciusko County with its diversified environment of water, woods, swamps and open fields furnishes unusual opportunities for bird studies.

The observations here recorded were made during the summers of 1923 and 1924, mostly between June 15 and August 25, and so, in almost all cases, are those of nesting birds. The list of 80 species includes only those seen by the observers but appended is a list of seven reported by others and in most cases, at least, the report is probably correct. One of the surprising features was the small number of water and shore birds seen, the absence of the latter probably being due to the fact that Winona Lake has very little exposed shore line.

The notes for 1923 were made by one observer only but in this year three birds were noted which were not seen in 1924 though several new ones were added to the original list in the latter year.

The following list includes all species seen both years at Winona Lake and in the country within a few miles of the lake.

Podilymbus podiceps. Pied billed grebe. Rare. Seen at Lake Wawasee July 26, 1924, but not at Winona Lake.

Hydrochelidon nigra surinamensis. Black tern. Not uncommon. Seen only towards the middle or last of August flying over the lake. Common at Lake Wawasee July 26, 1924.

Ixobrychus exilis. Least bittern. Seen during summer of 1924 in the marshes on the west side of the lake.

Botaurus lentiginosus. American bittern. Not common. Seen two or three times on west side of lake in 1924.

Ardea herodias herodias. Great blue heron. Not common. Seen mostly towards south end of Winona lake or flying over. No record of its nesting.

Butorides virescens virescens. Green heron. Rare; but one record for the two years. Seems as if it should be common, as several were seen from the interurban on the trip from Lafayette to Winona Lake.

Nycticorax nycticorax noevius. Black-crowned night heron. Rare. One seen at Chapman's Lake July 17, 1924.

Rallus elegans. King rail. Common along the marshy shores. Old with young frequently seen near Kosciusko Lodge.

Fulica americana. American coot. Rare. Seen once during 1924. Gallinago delicata. Wilson's snipe. Rare. Seen once during 1923.

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Philohela minor. American woodcock. Common. Found in marshy ground near Boys City.

Pisobia maculata. Pectorial sandpiper. Seen once during 1924 with spotted sandpipers near Biological Station.

Actitis macularia. Spotted sandpiper. Common. Evidently nested near the Biological Station.

Oxyechus vociferus. Kildeer. Abundant. Always seen along the ponds in the gravel pits where it apparently nested.

Colinus virginianus. Quail. Common. Often seen in the woods as well as the fields.

Zenaidura macroura carolinensis. Mourning dove. Abundant everywhere and a number of nests were found. At least three broods were raised by one pair in a season.

Catharates aura septentrionalis. Turkey vulture. Not common. Occasionally seen southeast of Boys City. Probably nests.

Circus hudsonius. Marsh hawk. Not uncommon. Nest and four young able to care for themselves seen August 2, 1924 in a marsh on the west side of the lake.

Accipiter velox. Sharp-shinned hawk. Seen several times and nest found in woods about a mile east of Winona Lake.

Accipiter cooperi. Cooper's hawk. Seen only by Mr. Esten on way to Lake Tippecanoe July 26, 1924.

Buteo hiretus. Red-shouldered hawk. Only record is of one which had been killed by a farmer about four miles from Winona Lake and was seen August 9, 1924, by Carl Gilpin and Fred Test.

Buteo latissimus. Broad-winged hawk. Not common but recorded each year.

Falco sparverius. Sparrow hawk. Rare. Seen only once August 12, 1924.

Syrnium nebulosum. Barred owl. Common in woods towards Boys City. Frequently heard. Mr. Van Dyke's boys took two young in the spring of 1924 from a nest in a large sycamore and kept one all summer.

Otus asio asio. Screech owl. Apparently not common. Heard only a few times, but a family of young was reported in 1924 on the hill-side near the tabernacle.

Coccyzus americanus. Yellow-billed cuckoo. Common. Seen frequently in all parts of the park.

Coccyzus erythrophthalmus. Black-billed cuckoo. Seen occasionally though not nearly so common as the former.

Ceryle alceyon. Belted kingfisher. Common. Three young able to fly were taken from a nest hole in the gravel bank at the foot of Chestnut street, and banded July 5, 1924.

Dryobates villosus. Hairy woodpecker. Rare. Seen only once or twice in the two seasons.

Dryobates pubescens. Downy woodpecker. Common. Seems to nest commonly though no occupied nests were found.

Melanerpes erythrocephalus. Red-headed woodpecker. Common, particularly in the town where they nest in the white oaks.

Colaptes auratus. Flicker. Abundant throughout the region and found commonly in the mulberry trees.

Antrostomus vociferus. Whip-poor-will. Not very common. Heard both years but only occasionally and seemed more plentiful on the west and south side of the lake than on the east side.

Chordeiles virginianus. Nighthawk. Rare. Probably does not nest. Was seen only once each year and then late in August flying over the lake.

Choctura pelogica. Chimney swift. Common but can hardly be called abundant. Often seen flying around the ventilating shafts of the Summer School Building but no nests were found when these were examined.

Archilochus colubris. Ruby-throated hummingbird. Common. Five nests were found in 1924, the first with fresh eggs about June 20. Another was under construction July 16 and the last apparently with eggs about August 1. One nest was on a limb about ten feet above a much traveled street of the town.

 $\it Tyrannus\ tyrannus.$ Kingbird. Fairly common. Nest with young found.

Myiarchus crinitus. Crested flycatcher. Not uncommon in woods east of Boys City. In 1924 a pair took possession of a martin box near a house. The box had been occupied by sparrows but they drove the sparrows away making their own nest and rearing their young.

Sayornis phoebe. Phoebe. Common. Found nesting under the porches of summer cottages. The nest of one was observed from a blind, the nest being placed on the porch floor for observation where the old birds fed their young as usual.

Myiochanes virens. Wood pewee. Abundant everywhere; in the woods and in the town. At least ten occupied nests were found in 1924. Some were in thick woods and others in open woods or trees around houses. One of the most characteristic of the summer birds.

Empidonax virescens. Acadian flycatcher. Not very common. Seen and heard occasionally in the deep woods between Boys City and the lake. Two nests were found in 1924.

Empidonax minimus. Least flycatcher. Not common. A few were seen and heard in the thick woods but no nests were found.

Otocoris alpestris. Horned lark. Rare. Seen only twice, once each year.

Cyanocitta cristata. Blue jay. Common, particularly in the large oaks in the town. Nests and young were found.

Corvus brachyrhynchos. Crow. Common. Heard on practically all trips. Nests were also found.

Dolichonyx oryzivorus. Bobolink. Rather rare. Seen each year at Chapmans Lake. In 1923 a small flock was seen after nesting season and in 1924 a single male July 18. A small flock was seen over a marsh on the west side of Winona Lake August 15, 1924.

Molothrus ater. Cowbird. Abundant everywhere and eggs were found in a number of nests.

Agelaius phoenicens. Red-winged blackbird. Common. Nests in the marshes. Very common up to the middle of July after which time it became much less common and on a number of trips was not seen at all.

Sturnella magna. Meadowlark. Common but not abundant. A nest was found on the Summer School campus and studied extensively from a blind.

Icterus spurius. Orchard oriole. Rare. Seen only once each year. Icterus galbula. Baltimore oriole. Very abundant and found everywhere throughout the region, at least seven occupied nests being found, mostly near houses. Were very abundant during June and the early part of July but seemed to be almost absent during the last half of July. Whether they were absent or only silent was not determined but almost none were noted. Early in August they became common again though the songs were not as frequent as a month earlier.

Quiscalus quiscula aeneus. Bronzed grackle. Common, though no nests were found.

Astragalinus tristis. Goldfinch. Quite common, nesting from July on. A few nests were found. One nest under construction found July 15, 1924.

Passer domesticus. English sparrow. Abundant everywhere as might be expected.

Pooceetes gramineus. Vesper sparrow. Not common, but a few were seen and heard in the fields each year.

Spizella passerina. Chipping sparrow. Common. Several occupied nests were found and one young was banded.

Spizella pusilla. Field sparrow. Abundant. Heard almost everywhere. A few nests were found.

Melospiza melodia. Song sparrow. Quite common. A nest from which young were hatched was built only a few feet from the Indiana University Biological Station and was often visited.

Pipilo erythrophthalmus. Towhee. Abundant. Found everywhere in the woods and three nests were found, one being observed from a blind.

Cardinalis cardinalis. Cardinal. Quite common and at least two nests were found. This seems rather far north for the bird to be so abundant.

Zamelodia ludoviciana. Rose-breasted grosbeak. Quite common, nesting in thickets and even in bushes in the town. One nest was observed from a blind and later one of the young was banded.

Passerina cyanea. Indigo bunting. Common. More frequently observed east of the lake. At least two occupied nests were found and three young from one of them banded.

Spiza americana. Dickcissel. Not common, though frequently heard a few miles northeast of town towards Chapman's Lake. None were observed near Winona Lake.

Piranga erythromelas. Scarlet tanager. Common. Males often heard and seen. Though no nests were found there evidently were a few pairs breeding in the thick woods.

Progne subis. Purple martin. Abundant. One of the most characteristic of Winona birds. Many martin houses throughout the town have attracted them in large numbers and most of the houses are occupied except where the English sparrows have taken possession.

Hirundo erythrogastra. Barn swallow. Fairly common in the surrounding country where there are old barns.

Riparia riparia. Bank swallow. Very abundant. A characteristic bird of Winona Lake. Nests by the hundreds in the gravel pits.

Stelgidopteryx serripennis. Rough-winged swallow. Apparently rare. Noted only once or twice in 1924 in company with the bank swallows.

Bombycilla cedrorum. Cedar waxwing. Fairly common. Frequents the region of the mulberry trees. One nest was found and several young seen. One young caught in one of the buildings and was kept captive for over a month. It became very tame and some of its feeding habits were noted. It seemed to prefer soft fruits, particularly mulberries, but ate a number of insects preferring small moths and crickets. One day it was fed 19 times at intervals of 15 to 60 minutes. The food during this time consisted of 10 blackberries, 41 mulberries, 15 moths and 11 crickets. The total weight of food consumed was about 60 grams while the bird weighed 37 grams. It was banded and later released at Lafayette, Indiana.

Lanius ludovicianus. Loggerhead shrike. Apparently rare. Observed only once in the summer of 1923, but reported to us by others, once in 1924.

Vireosylva olivacea. Red-eyed vireo. Mcderately common in the thick woods. No nests were found.

Vireosylva gilva. Warbling vireo. One of the most abundant of the summer birds nesting everywhere in the town yards and woods. Sings all summer. A number of nests were found.

Dendroica aestiva. Yellow warbler. Not particularly common but three nests were found and the birds were seen each year.

Geothlypis trichas. Maryland yellow-throat. Common almost everywhere especially near the lake. No nests were found.

Icteria virens. Yellow-breasted chat. Not very common. Found only in the thickets. No nests were found.

Setophaga ruticilla. Redstart. Common. Seen often in the woods near Chicago Hill during June and July. Three nests were found.

Dumetella carolinensis. Catbird. Very abundant. One of the commonest birds of Winona Lake. Several nests were found and four young ones banded.

Toxostoma rufum. Brown thrasher. Not very common. A few were usually found around certain mulberry trees but they were rarely seen elsewhere. No nests were found.

Troglodytes aedon. House wren. Abundant. One of the characteristic birds of Winona Lake. Many wren houses have been put up and all of them seemed to be occupied.

Telmatodytes palustris. Long-billed marsh wren. Rare. The few birds seen were probably this species. One was seen on the west side of the lake July 4, 1923, and three or four at Lake Wawasee July 26, 1924. It was reported that there were a few pairs in a marsh on the east side of the lake early in the summer of 1924. No nests were found.

Sitta carolinensis. White-breasted nuthatch. Not common. The birds were found pretty well distributed throughout the region but no nests were found.

Boeolophus bicolor. Tufted titmouse. Common. Heard and seen frequently in the woods on the east shore of the lake. No nests were found.

Penthestes atricapillus. Black-capped chickadee. Not uncommon. Several families were seen near Boys City and one nest was found. None were seen in 1923.

Hylocichta mustelina. Wood thrush. Abundant. One of the characteristic birds of the region. Found both in the woods and in town. Seven nests were found and two young birds banded.

Planesticus migratorius. Robin. Abundant as might be expected. Over 30 nests were found. An interesting occurrence of an albino robin was reported from Webster Lake and a photograph of the bird was shown. It appeared pure white. On July 18, 1924, a pronounced case of melanism was observed in a young robin which spent several hours on the assembly grounds. It was almost black.

Sialia sialis. Bluebird. Only moderately common. A young one was caught in the Summer School Building and one nest was found.

Supplementary List of Birds Reported by Others But Not Seen by Us.

Ardea caerulea. Little blue heron. Reported in 1924 by Wilson. Considering the range of the species the record seems very doubtful.

Rallus virginianus. Virginia rail. Reported by Wilson and Bennett. Possibly confused with the king rail.

Bubo virginianus. Great horned owl. Seen by Henry Oldys in deep woods five miles northeast of Warsaw about July 18, 1924.

Petrochelidon lunifrons. Cliff swallow. Not common. Observed only once by Fred Test and Carl Gilpin.

Lanivirea flavifrons. Yellow-throated vireo. Reported by Mrs. Funk but may have been confused with the female scarlet tanager.

Dendroica caerulea. Cerulian warbler. Reported as having been seen two or three times by Carl Gilpin and Fred Test. Is quite probable.

Protonotaria citrea. Prothonotary warbler. Reported as seen July 25th by Fred Test and Carl Gilpin. Seems quite probable.