

As the breeding-season drew near, the Nuthatch's roosting-hole became an attraction for a pair of Bluebirds and numerous House Sparrows. The male Nuthatch paid little attention to these invaders during the daytime, but toward sunset he remained near the hole and asserted his rights by excited "quanking." On April 16th, 1914, a cold, dark day, with snow blowing in from the East in the afternoon, an amusing incident occurred. The female Nuthatch retired to the hole soon after four o'clock. Half an hour later the male bird came to the shelf and, after eating plentifully of the nuts, as was his custom before retiring, flew to the hole. He looked in and, seeing the female, evidently, did not enter, but climbed about the branches near and scolded, acting as he did when the Bluebirds appeared. He soon moved off and did not return until the next day. Lack of room could not have prevented his entering, for this same cavity accommodated a brood of Bluebirds later in the season.

During the next week the great ash tree was taken down; its trunk was so far decayed that the tree was in danger of being blown down by the wind. The loss of this tree and the subsequent cutting away of other trees and shrubs in the vicinity were evidently not to the Nuthatch's liking, for during the following autumn he visited us rarely. That the pair of Nuthatches bred in the neighborhood is probable, however, for Mrs. Tyler saw on July 30th, 1914, an adult bird on the cherry tree feeding two young ones.

Lexington, Mass.

NOVEMBER BIRD-LIFE AT REELFOOT LAKE, TENN.

BY A. F. GANIER.

THANKSGIVING, 1915, and the three days following, November 26, 27 and 28, were spent at Reelfoot Lake, Tenn., by Prof. A. C. Webb, Dr. Geo. R. Mayfield, and the writer. The exact location of our headquarters was two miles east of Phillippy, the R. R. station, on the west bank of the lake, about ten miles south of the Kentucky line.

The object of the trip was to determine the status of the bird-life of the region at this season in connection with the work of listing the birds of the state being done by the Tennessee Ornithological Society. The results of the trip were very satisfactory, a total of 59 species being observed, besides a collection of 35 skins was made up, among which are represented most of the species not commonly found. The season was well advanced and the birds noted were no doubt typical of what can be found there throughout the winter. The only disappointing feature of the trip was the fact that most of the ducks had left the lake, or as the natives put it, the "first flight" had just left and the second had not come in. We were told that ten days before our arrival hundreds of flocks of ducks and geese had visited the lake; during our stay we saw only about twenty flocks of the former. The weather was temperate, with a bit of wind and rain, but not enough of the latter to interfere with field work.

Reelfoot Lake is located in the extreme northwest corner of Tennessee, the northern end extending across the Kentucky line and its western margin lying about five miles from the Mississippi river. The lake proper is from two to three miles wide and about twenty miles long, although its marshes and sloughs extended over a considerably larger area. This fine body of water is the result of an earthquake which occurred in 1811, and the thousands of submerged and partly submerged cypress snags still stand mute witness to this fact. The depth of the water at some points is thirty feet or more, and where such depths are met the surface is free from snags. The entire lake is bordered with "saw grass," in fact it is encountered wherever a depth of three feet or less is met. Since many of the arms of the lake are shallow, this grass is found in immense areas and it affords fine shelter for water birds. Hill country comes to within a half mile of the east shore of the lake, being separated by low damp woods. The country on the west bank, extending to the Mississippi river, is low swampy woodland, a comparatively small portion of which has recently been cleared up and put into cultivation. The timber is of great variety, sweet gum, oak,

elm and cypress predominating, with a considerable growth of switch cane and vines. In spite of the latter, however, the woods are fairly open. At this season of the year bird-life fairly teems in this woodland, due doubtless to plentiful food supply and the protection the extensive forests afford against the winds.

Before going into the annotated list a few general observations may prove of interest.

The fact that Brown Thrashers, Red-headed Woodpeckers and Florida Gallinule were present was a matter of some surprise. The last named is not regularly found in middle Tennessee, but the two preceding species had migrated from that region six weeks before. This probably is due to the fact that the Reelfoot region is typically Austroriparian, while middle Tennessee is of the Carolinian fauna.

The unlooked-for species were of no more interest than those we expected to find, but did not. Of the latter class the most notable absences were the Hairy Woodpecker, Towhee, and Bewick's Wren, and to a lesser degree, the Screech Owl and White-crowned Sparrow. Other species which were probably present, but were not found on account of their scarcity or inaccessibility, were King and Sora Rails, Woodcock, Wilson's Snipe, Wild Turkey, Marsh Hawk and Long-eared Owl. The hill country adjoining the lake would probably have shown some of these; also the Bob-white and Killdeer but we did not include these hills in our tramps. The scarcity of the following species was a matter of comment: all Ducks, Geese, Dove, Black Vulture, all Hawks, Kingfisher and Song Sparrow.

Below follows the annotated list of species observed, those marked with an asterisk being represented by specimens in the collection made.

ANNOTATED LIST.

(1) Pied-billed Grebe* (*Podilymbus podiceps*). Common, feeding from the edge of saw-grass out into deep water among the snags. If closely pursued it dives and on returning to the surface shows only its head above the water.

(2) Double-crested Cormorant* (*Phalacrocorax auritus auritus*).

A flock of about one hundred remained on the deep water or perched themselves on the dead trees and snags in the lake. They frequently fly for long distances just a foot or two above the water's surface.

(3) Mallard (*Anas platyrhynchos*). Eight were noted which had been killed by hunters who claim this to be the commonest duck on the lake. About twenty flocks of ducks in flight were noted, but identity of course was impossible.

(4) Black Duck (*Anas rubripes*). Two specimens killed by hunters during our stay.

(5) Pintail (*Dafila Acuta*). One specimen killed.

(6) Lesser Scaup (*Marila affinis*). One specimen killed.

(7) Canada Goose (*Branta c. canadensis*). A flock of twenty seen on the Mississippi river at Hickman, a few miles from the lake.

(8) Florida Gallinule* (*Gallinula g. galeata*). Two specimens caught in steel traps were brought in.

(9) Coot* (*Fulica americana*). Two noted on the lake swimming at edge of the reeds. A number of dead ones noted on bank which had been killed and cut up for bait.

(10) Mourning Dove (*Zenaidura macroura carolinensis*). A few seen in a clearing near the lake.

(11) Turkey Vultures (*Cathartes aura septentrionalis*). Fairly common. Nine seen together on one occasion.

(12) Black Vulture (*Catharista u. uruba*). One only was noted.

(13) Sharp-shinned Hawk (*Accipiter velox*). A small hawk, which bore every evidence of being this species, was noted.

(14) Large Hawk (*Species ?*). Two noted, not able to secure or make satisfactory identification.

(15) Sparrow Hawk (*Falco s. sparverius*). Several seen in clearings near the lake.

(16) Bald Eagle (*Haliaeetus l. leucocephalus*). Two or three were noted every day on the lake and flying over the adjoining forests. Two were mature and one was still in the black phase. They frequently perched on the dead trees or snags out in the lake. Hunters state that owing to their wariness, none have been shot in several years. We were further told that they made their nests a mile or more from the lake in the dense woods.

(17) Great Horned Owl* (*Bubo v. virginianus*). A female, caught in a steel trap, was brought to us on November 28th.

(18) Barred Owl (*Strix v. varia*). One noted near the lake on November 28th. Heard calling on two other occasions.

(19) Belted Kingfisher (*Ceryle alcyon*). One seen November 27th, feeding on a small tributary stream at the lake's edge.

(20) Southern Downy Woodpecker* (*Dryobates p. pubescens*).

Common. Four specimens taken appear to be intermediate between this and the northern form.

(21) Yellow-bellied Sapsucker * (*Sphyrapicus v. varius*). Common.

(22) Red-headed Woodpecker * (*Melanerpes erythrocephalus*). Six noted, in clearings among deadened trees.

(23) Pileated Woodpecker * (*Phlæotomus p. pileatus*). Ten noted and four skins secured. Probably fairly common in the vicinity, which is well suited to its habits. Those we saw were comparatively unsuspecting.

(24) Red-bellied Woodpecker * (*Centurus carolinus*). Abundant. As usual was busy hoarding away his winter supply of nuts.

(25) Flicker (*Colaptes a. auratus*). Fairly common. Noted chiefly in the clearings. No specimens were secured from which to positively identify this as the southern form.

(26) Phoebe (*Sayornis phæbe*). Three noted; one on the lake.

(27) Blue Jay (*Cyanocitta c. cristata*). Fairly common.

(28) Crow (*Corvus b. brachyrhynchus*). A flock of one hundred and several smaller flocks were noted.

(29) Meadow Lark (*Sturnella m. magna*). Several seen on an alfalfa meadow near the lake. It is not improbable that these were the southern form.

(30) Cowbird * (*Molothrus a. ater*). Abundant, roosting in the saw-grass with other blackbirds.

(31) Redwing * (*Agelaius p. phæniceus*). Flocks feeding in the clearings. Millions roosting in the saw-grass at night.

(32) Rusty Blackbird * (*Euphagus carolinus*). Several noted feeding at the lake's edge among the bushes. Of twelve blackbirds shot at random, from among the mixed flocks flying to roost at dusk, three were of this species, three were cowbirds, and six were redwings.

(33) Bronzed Grackle * (*Quiscalus g. aneus*). Millions passed by to their roosting place every evening, gathering, doubtless, from a radius of many miles.

(34) Purple Finch * (*Carpodacus p. purpureus*). Two small flocks noted and a male secured; others heard.

(35) English Sparrow (*Passer d. domesticus*). A few noted at the railroad station two miles from the lake.

(36) Goldfinch (*Astragalinus t. tristis*). Several flocks seen and others heard.

(37) White-throated Sparrow * (*Zonotrichia albicollis*). Very abundant, forming the bulk of the flocks of small birds noted in the woods.

(38) Field Sparrow (*Spizella p. pusilla*). A few noted in a clearing some distance from the lake.

(39) Slate-colored Junco (*Junco h. hyemalis*). Common, always associated with the white-throats.

(40) Song Sparrow (*Melospiza m. melodia*). A few noted along the lake's edge and on ditches in the clearings.

(41) Swamp Sparrow* (*Melospiza georgiana*). Common, frequenting chiefly the lake's edge and low wet places.

(42) Fox Sparrow* (*Passerella i. iliaca*). Fairly common in the woods, frequenting the brush piles and fallen trees.

(43) Cardinal (*Cardinalis c. cardinalis*). Common, mostly along the lake's edge.

(44) Cedar Waxwing* (*Bombycilla cedrorum*). A number of small flocks noted in the woods, keeping to the tree tops.

(45) Migrant Shrike (*Lanius ludovicianus migrans*). Two noted among cultivated fields a few miles from the lake.

(46) Myrtle Warbler* (*Dendroica coronata*). Abundant, feeding from the ground to the tops of the trees in the woods, and among the bushes along the lake just above the water.

(47) Mockingbird (*Mimus p. polyglottos*). One noted at the lake and two at the railroad station, two miles west.

(48) Brown Thrasher (*Toxostoma rufum*). Two noted in brush at edge of lake and another among briars at edge of a clearing.

(49) Carolina Wren (*Thryothorus l. ludovicianus*). Common everywhere.

(50) Winter Wren* (*Hannus h. hiemalis*). Common, found on the logs in the woods.

(51) Brown Creeper* (*Certhia familiaris americana*). Fairly common, a half dozen could be seen in an hour's walk.

(52) White-breasted Nuthatch* (*Sitta c. carolinensis*). Perhaps a dozen noted in all.

(53) Carolina Chickadee (*Penthestes c. carolinensis*). Common, always associated with the kinglets, myrtle warblers and woodpeckers.

(54) Tufted Titmouse (*Bæolophus bicolor*). About a dozen in all were noted.

(55) Golden-crowned Kinglet* (*Regulus s. satrapa*). Abundant.

(56) Ruby-crowned Kinglet (*Regulus c. calendula*). Common, but apparently outnumbered four to one by the preceding species.

(57) Hermit Thrush* (*Hylocichla guttata pallasi*). Fairly common, the fallen trees and thick brush piles offering ideal winter quarters.

(58) Robin* (*Planesticus m. migratorius*). Common, in large and small flocks, feeding chiefly in the tree tops.

(59) Bluebird (*Sialia s. sialis*). Perhaps half a dozen flocks were noted in the woodland.

Nashville, Tenn.