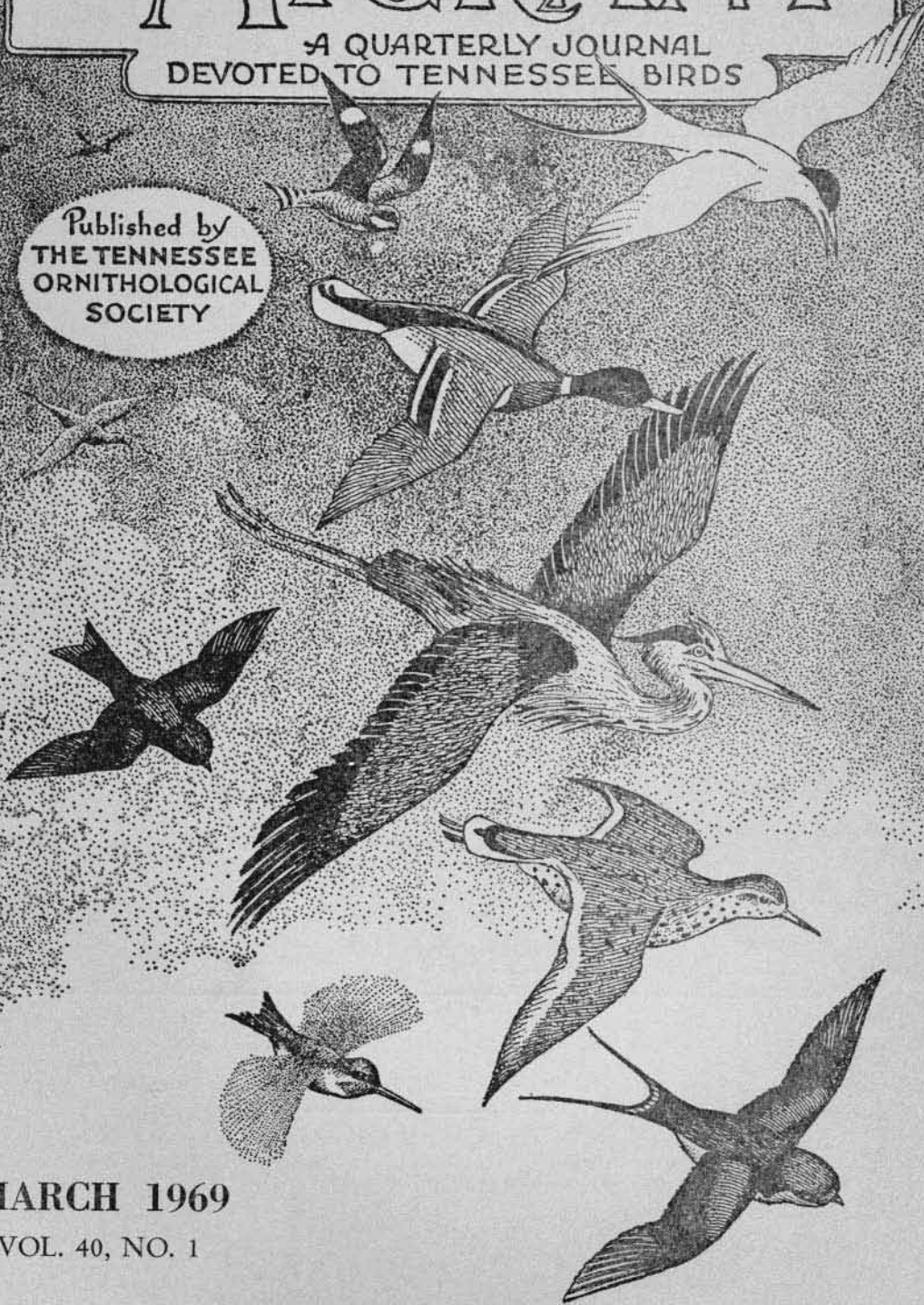


THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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EVALUATING THE CHRISTMAS COUNT RECORDS OF BOBWHITE IN TENNESSEE

BY JAMES T. TANNER AND RIES S. COLLIER

Christmas bird counts made in Tennessee have been reported in *The Migrant* since 1930. Counts were made that year in Knoxville, Nashville, and Memphis. Since then the number of areas has increased to represent most regions of the state. The Christmas counts have become one of the Tennessee Ornithological Society's major activities, a cooperative project in which the many participants have learned much about birds and while doing so have had a lot of sport. Much information about the birds of Tennessee has accumulated; for example, rare and unusual species have been found, and the fluctuations in the abundance of winter finches have been revealed by the recorded numbers.

The wealth of data in these bird counts has stimulated attempts to use the records for measuring changes in the abundance of other birds, particularly of a species like the Bobwhite (*Colinus virginianus*) in which people are especially interested. This proved to be very difficult because of the many factors affecting the number of individual birds observed and reported. Some of these factors are: numbers of observers, parties, party-hours, and party-miles; ability and accuracy of the observers; coverage of different habitats; weather. To allow for all of these in interpreting or evaluating the counts would be a very complex process. The single factor probably having the most effect on the numbers of individual birds observed is the number of party-hours spent in the field. This, however, along with the other factors, was not reported in the earlier counts and is frequently missing from some of the recent ones.

Looking for a way out of the complexities described above led to the idea of using an "index bird," a species whose observed numbers could be used as a base against which the numbers of other species would be compared. The ideal "index bird" would be easily identified, common and widespread, well dispersed and not aggregating into large flocks, and stable in numbers from year to year. If a species met all these conditions, its numbers observed on a Christmas count would be a good measure of the number of parties and the time they spent in the field, of their ability and effort in finding birds, and of the suitability of the weather for birding—all combined in one number.

The possibility of using an "index bird" to measure the abundance of Bobwhites was investigated by Ries S. Collier at The University of Tennessee and was the subject of his Master of Science thesis (Collier, 1967). He obtained the data from the Christmas count records published in *The Migrant*, and he performed all the calculations and tests described below.

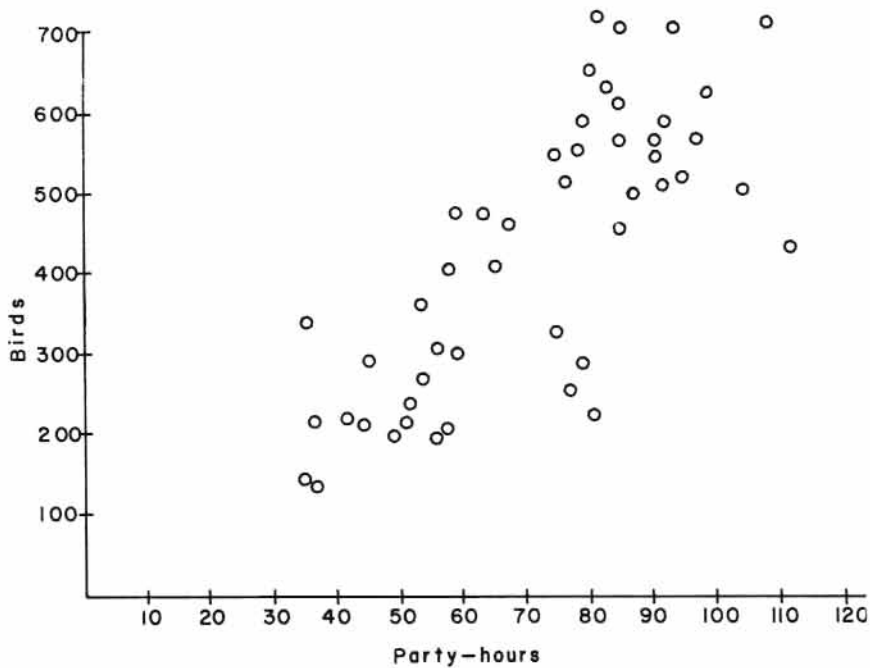


Figure 1. Number of Cardinals observed per party-hours on 49 Christmas counts in Tennessee.

Three species seemed obvious possibilities for an index because they are common birds in the habitats of Bobwhites in Tennessee; these were the Tufted Titmouse (*Parus bicolor*), Mockingbird (*Mimus polyglottos*) and Cardinal (*Richmondena cardinalis*). Graphs were prepared showing the number reported of each of these species plotted against the party-hours in the field for 26 years of Christmas counts at Memphis and 23 at Nashville. The data for the Cardinal showed the best relation in that the average number of Cardinals increased linearly with the number of party-hours at the rate of approximately 6 Cardinals per party-hour (Figure 1). The plots for the other two species showed more scatter and a much slower rate, about 1.6 birds per party-hour. So the Cardinal was chosen as the "index bird."

Two methods of assessing the abundance of Bobwhites were then compared, one being the Bobwhite per party-hour ratio and the other being the Bobwhite per Cardinal ratio.

One objective of this study was to find a way in which the abundance of Bobwhites in one area could be compared with another, or at one time with another. To make comparisons by the usual and most efficient statistical methods, it is necessary that the data be "normally distributed", i.e., that a plot of the data be bell-shaped with most points clustered symmetrically around the average value and few at either extreme. The second step in the study was to test both the Bobwhite per party-hour and the Bobwhite per Cardinal ratios, and some simple mathematical transformations of these, to see which had the

most normal distribution. The only transformations tried were the logarithms of the ratios and the square roots of the ratios, and neither of these improved the distribution. The Bobwhite per Cardinal ratio proved to be slightly better than the Bobwhite per party-hour ratio. The first had another advantage in that all Christmas counts recorded in *The Migrant* could be used, since Cardinals were seen every time, while in many cases the party-hours had not been recorded. In short, Bobwhites per Cardinal gave a slightly better test and much more data than did Bobwhites per party-hour. The remainder of this paper discusses the Bobwhite-Cardinal ratio; to simplify the figures, the ratio will be expressed as the number of Bobwhites per 100 Cardinals.

The average ratios for the three geographical regions of the state are shown in Table 1. These were calculated from the totals of all Bobwhites and Cardinals reported each year from each region. Also included in the table is the data from the one area in each region having the longest usable record. The last column of the table, the standard deviation, shows the great variation that has occurred over the years in each area. Considering the variation, there are no significant differences between the ratios of the different regions or localities. The high ratio for East Tennessee might look as though Bobwhites were relatively more common there, but as is indicated in the footnote of the table, elimination of four extremely high counts from the East Tennessee record reduces the average to 13, in line with all the others. Incidentally, the Bobwhite per party-hour ratio had standard deviations that relatively were as large as the Bobwhite per Cardinal ratio.

A method of presenting the year to year changes in each region was adopted, a method that is used in quality control in industry and is described by Tippett (1950). Figure 2 illustrates this method with the Bobwhite-Cardinal ratios from West Tennessee. The values are simply plotted in sequence, with one horizontal line showing the mean value and two horizontal lines labeled with a certain probability (1% in Figure 2). The method of calculating the location of these two lines is described in Tippett (1950), but their meaning essentially is this: based on the mean and standard deviation of the ratios, the

TABLE 1
MEANS AND STANDARD DEVIATIONS FOR BOBWHITES/100
CARDINALS

Locations and Areas	Mean	Standard Deviation
West Tennessee	15	8.8
Memphis	17	8.6
Middle Tennessee	12	6.1
Nashville	11	10.6
East Tennessee	39*	40.8
Greeneville	13	12.3

*If the four highest ratios are eliminated from the East Tennessee record, the mean is reduced to 13, and the standard deviation would be correspondingly reduced.

chances of a point falling outside these lines is 1% or less. If a point does fall outside, the chances of its being an accident are very small and there probably is a significant cause for the high or low value.

A technical but important point should be mentioned here for those interested in statistical tests of field data: the standard deviation was calculated by the method described in Tippett (1950), by the difference between successive points, a method which reduces the effect of trends or slow changes.

Examination of Figure 2 will reveal an anomaly, in that the lower 1% line is drawn below the zero line, at an impossible figure of fewer than no Bobwhites at all. This results from the fact that the variation in the data is so great that the standard deviation is large compared with the mean (see Table 1). There is, therefore, no way to recognize significantly small numbers of Bobwhites.

Charts similar to Figure 2 were prepared for each region and locality shown in Table 1, with the objective of seeing if there were any trends in Bobwhite populations or any years in which Bobwhites were unusually abundant. The results were disappointing in that few of these became apparent. The values varied greatly from year to year, as is shown for West Tennessee, almost as if they had been determined by chance. The reasons for this up and down variation are probably three-fold. First, Bobwhite populations really are variable. Second, the Cardinal is probably the best choice for an "index bird," but its numbers must also fluctuate from year to year and we have no good way of measuring this. Third, Christmas count records are influenced by many factors, some having been stated earlier, but another which is impossible to evaluate is the care and accuracy with which the observers make and record their counts. The method of using an "index bird" did prove to be slightly better than using party-hours, but was not as useful as we had hoped it would be.

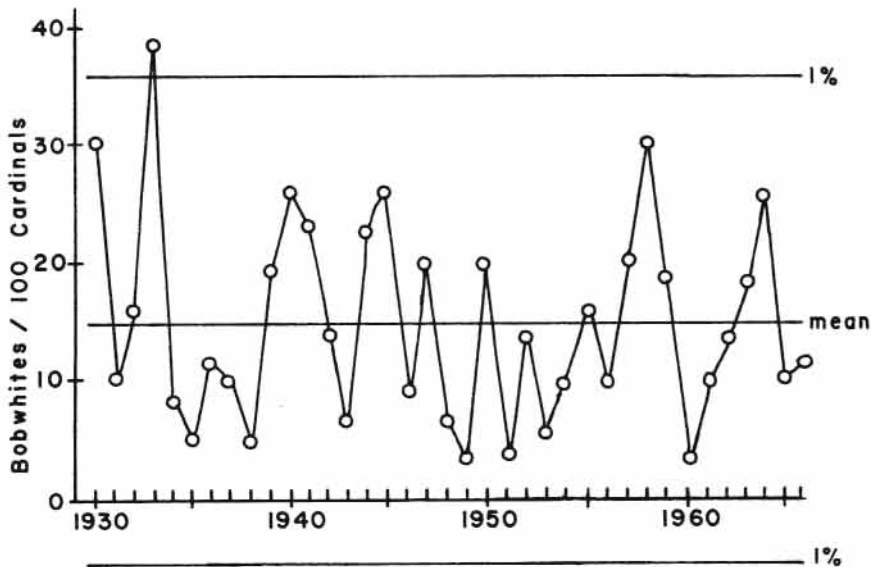


Figure 2. Number of Bobwhites per 100 Cardinals on Christmas counts in West Tennessee. See the text for the meaning of the horizontal lines.

The results of the study did, however, tell us a few things about Bobwhite populations. The following conclusions are based primarily on the Bobwhite per Cardinal ratio; the Bobwhite per party-hours supported them.

The charts, like that of Figure 2, demonstrated that Bobwhite populations fluctuate greatly from year to year. Statistical tests showed that there is little correlation between the population numbers from one year to the next. This suggests that the population size is more dependent on some environmental factor than on the population of the previous year (of course this idea cannot be carried too far, because Bobwhites can be produced only by Bobwhites). The yearly fluctuations result from the high annual mortality and the potentially high reproductive rate of Bobwhites, and the way in which these are affected by weather and other factors.

As was mentioned earlier, the figures showed no long-lasting trend either up or down in Bobwhite numbers. Extremely high ratios were found for East Tennessee in 1930, 1935, 1940, and 1943; for Middle Tennessee in 1938, 1949, and 1957; for West Tennessee in 1930, 1933, and 1958. Very little coincidence appears here.

The weather during the nesting and post-nesting season probably does have an important effect on reproductive success, but it is extremely difficult to identify the effective weather factors. We could find no correlation between high and low Bobwhite per Cardinal ratios with various combinations of temperature and rainfall during the previous May, June, or July.

It was thought that winter ice storms might reduce Bobwhite populations significantly. During the years covered by the Christmas count record, there were twelve serious ice storms in Tennessee (data from U. S. Weather Bureau: *Climatological Data: Tennessee*). These all occurred in January, February, or March. The Bobwhite per Cardinal ratio of the following Christmas count was high in one year, medium in seven, and low in four years. There apparently was no long lasting effect of the ice storms.

In reviewing the problem, we can say that the use of an "index bird" offers possibilities for evaluating the numbers recorded in Christmas counts, but is not an ideal method. Because the Christmas count records contain so much information about the abundance of birds over the years and over the country, a good method of evaluation would be very useful.

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Department of Zoology and Entomology, University of Tennessee, Knoxville.

FOUR ADDITIONS TO THE TENNESSEE STATE LIST

BY T.O.S. MEMBERS

Editor's Note: Within the last six months four species of birds, whose occurrence in the state has not been previously published, have been observed in various parts of the state. Because of their proximity to each other in time, they have been reported here in chronological order as a group. Thanks are due to those members who have submitted these significant records for our consideration and publication.

GROUND DOVE—About 10:00 a.m. 20 October 1968, Mike Patterson caught a Ground Dove (*Columbigallina passerina*) in Richard Walker's garden, near Harbert Hills Academy.

This garden was not cultivated this year, and was overgrown with weeds. The mist nets were spread in a narrow walkway between grape vines and dwarf fruit trees. Adjacent to the garden, and probably the habitat that attracted the dove, is a four thousand acre tract, formerly second-growth hardwoods, now cleared for planting in pines. The clearing was done with a large disc-cultivator drawn by a bulldozer, which cut down and crushed the trees but left them scattered throughout the area. Saplings and composites have grown up through the brush, making a rich feeding ground for many species of birds. Those species best represented near the nets that day include Bobwhite, Mourning Dove, American Goldfinch, and Chipping, Field, White-throated, Fox, and Swamp Sparrows (*Colinus virginianus*, *Zenaidura macroura*, *Spinus tristis*, *Spizella passerina*, *S. pusilla*, *Zonotrichia albicollis*, *Passerella iliaca*, *Melospiza georgiana*).

The dove had a general coloration similar to a Mourning Dove, except for the wings. Folded, the wings were grey toward the front but richly rufous middle to tip. Extended, viewed from above, the wings were rufous on the primaries and primary coverts. The entire undersurface of the wing was a slightly lighter shade of rufous, except for the tips of the outer eight primaries, which were almost white. The upper surface of the wings had round spots of iridescent purple-black, about 3 or 4 mm diameter, and also some iridescent streaks at the tips of some of the secondary coverts. The outer tail feather on each side was blackish, with a white tip. The irises were pink to lavender.



GROUND DOVE

The feathers on the flanks, belly, and breast were partially sheathed, and among them were many quills about 5 to 10 mm long. The contour plumage was dense and fluffy and came off readily as the bird was handled. The tail feathers on the left were only about half as long as their counterparts on the right side, and were partially sheathed. On 7 November, the dove was examined again, and the tail was nearly symmetrical.

The overall length of the dove was 175 mm, gently stretched; it would probably be slightly longer as a study skin. The wing chord was 85 mm. The tail, from the tip of the longest feather to its point of insertion, was 58 mm. The bill measurement was difficult, because of a rather long and shallow nostril, but could be described as 7.5 mm from the tip of the bill to the front of the nostril. The weight, taken on a torsion balance, was 38 grams.

After measuring, photographing, and banding the dove, it was released, as the species could readily be verified from the pictures. On 7 November, it was caught again in the same net at the same location, at approximately the same time of day. It had been released 20 October about one-half mile from the net.

A. C. Bent, *Life Histories of North American Gallinaceous Birds*, Dover, New York, 1963 (reprint of 1932 work), gives the range of this species as north to Montgomery, Alabama, and lists a number of casual occurrences north of the usual range, including Rogers, Arkansas, and Buncombe County, North Carolina. Frank M. Chapman, *Handbook of Birds of Eastern North America*, Dover, 1966 (reprint of 1939 edition), lists Tennessee among states with accidental records, without further details. The *A. O. U. Check-List of North American Birds*, Fifth edition, 1957, says "Breeds . . . to central Alabama, . . . Casual or accidental north to Iowa, Arkansas, northern Mississippi, northern Alabama, . . . *The Migrant* 23:3 has one mention of Ground Dove (Vaiden, 1952, three specimens from Bolivar County, Mississippi).

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill 38475.

GROOVE-BILLED ANI—On 29 November 1968, a Groove-billed Ani (*Crotophaga sulcirostris*) was observed and collected about ten miles north of Dyersburg, in northwest Tennessee. This constitutes the first record of this tropical species for the state. The *A.O.U. Check-List of North American Birds* (1957) gives its range as,

"Resident from southern Sonora, Mexico, and the lower Rio Grande Valley . . . , south through the tropical areas of Mexico . . . to Peru, . . . Casual in fall and winter in Louisiana and Mississippi, accidental in Minnesota, Nebraska, Kansas, Oklahoma, Arkansas and Florida."

A small colony of another species, the Smooth-billed Ani (*Crotophaga ani*) is resident in southern Florida. The Check-List groups the cuckoos, Roadrunner and anis together to form the family *Cuculidae*.

The bird was shot by a rabbit hunter who was hunting in a hay field, when the bird flew in and landed quite near him. It was unaccompanied by other birds and was apparently not disturbed by the presence of the hunter. Having noticed the bird's peculiar parrot-like bill and unusual flight pattern, the hunter decided that it must be a grackle with some type of deformity. He therefore collected the ani and sent it to me for examination. Having identified it, I sent the specimen in frozen condition to Albert F. Ganiar, T.O.S. Curator, for further examination and for preservation in the form of a study skin for his collection. He has reported, so far, that the bird was a male in good physical condition and that the stomach contents are being analyzed to be reported upon later.

Dr. George Lowery, in his *Louisiana Birds* (1955), says with regard to this species in that state, that, except for two records, it is seen only in the coastal



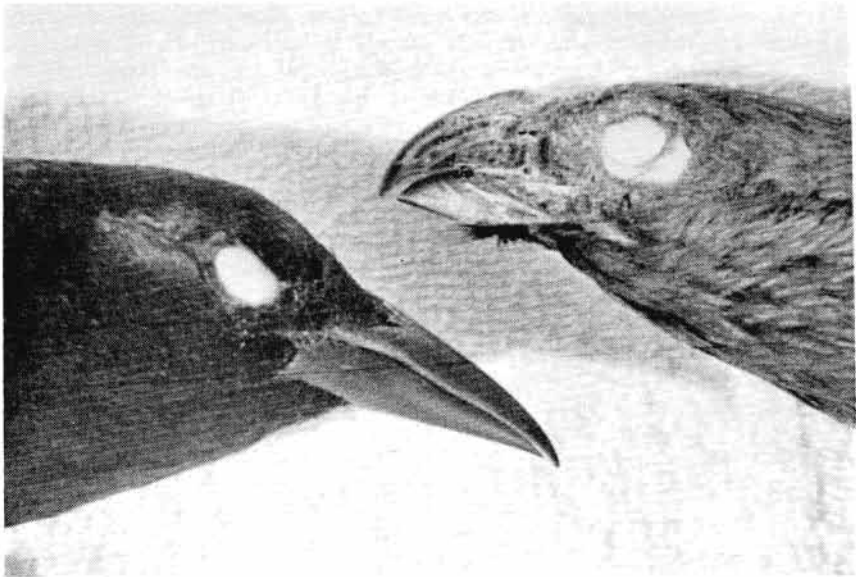
HEAD OF GROOVE-BILLED ANI

parishes (counties) of the state. He further states,

"It is typically a bird of the tropics and usually ranges (northward) only to the lower Rio Grande Valley. Hence for the species to reach southern Louisiana in fall it must travel many hundreds of miles northeastward when other migratory birds in North America are moving southward."

The possibility of this individual having been blown northward, a little at a time, might be substantiated by a review of the weather conditions prior to 29 November. According to the Weather Bureau at Memphis the weather during this period was very unusual. The wind was blowing almost continuously out of the southwest. A peak was reached on 28 November, which was Thanksgiving Day, when the wind averaged 25 mph with gusts to 44 mph. All day of 27 November, it rained from Texas to the Ohio Valley. This precipitation ended by early morning of the 28th. That night a cold front passed through the area and the winds shifted to northeast at a moderate 5-10 mph. The temperature dropped from a high of 67° F. on the 28th to 38° F. on the morning of the 29th. Just prior to the movement through this area of the cold front, a front moved into Texas out of the west bringing with it unseasonably cold weather and some snow. This type of weather combination is very unusual and could account for the appearance of this bird far out of its normal range.

Unlike the other members of their family, the anis have perceptibly iridescent plumage about their neck and upper parts. The nape of the Groove-billed Ani is streaked with silver while that of the Smooth-billed Ani is streaked with bronze, according to Chapman, *Handbook of Birds of Eastern North America* (1966). The upper mandible is not wide but is high and arched thus providing an unmistakable field mark. The accompanying photographs made by Henry Parmer show the ani and the Common Grackle for comparison.



HEADS OF ANI AND GRACKLE COMPARED

Bent, *Life Histories of North American Cuckoos etc.*, (1964) says that anis are birds of the open country, that they are primarily insectivorous and, singly or in small flocks, are prone to search near the feet of cattle or mules for insects. Also, they occasionally pluck ticks and other insects from the animals' skins. These characteristics should be kept in mind for possible future identifications when we observe domestic animals in pastures and there are apparently grackles in their vicinity.

KENNETH LEGGETT, Dyersburg 38024.

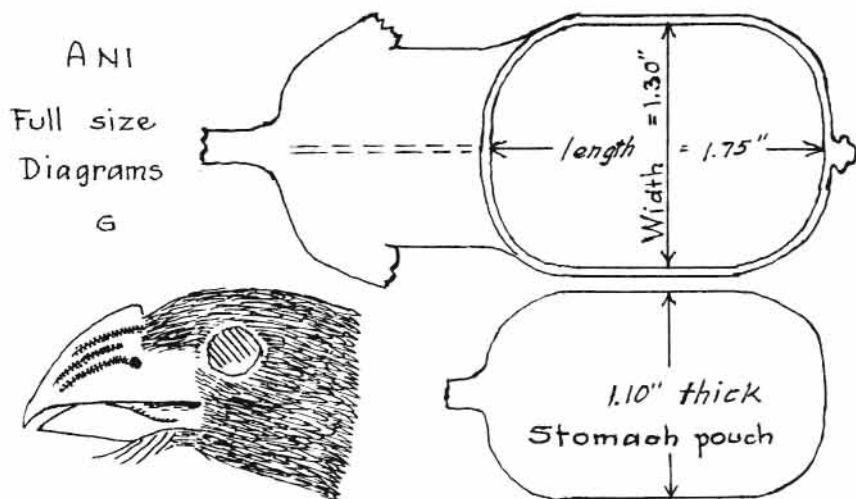
POST-MORTEM OF A GROOVE-BILLED ANI—The specimen of Groove-billed Ani (*Crotophaga sulcirostris*) recorded above by Mr. Leggett, came into my hands for further examination and for preservation as a study skin. After this had been completed, I concluded that the bird was so remarkable in many ways a further description would be of interest.

The beak, of course, is the most striking feature of its appearance, causing wonderment as to why it is so shaped for the use of an insectivorous bird. The upper mandible is no wider than that of other birds of its size but the height is abnormal and so shaped as to give strength for biting action. Since the ani is largely insectivorous, it may be assumed that a strong beak is necessary for crushing large live insects before swallowing. Such insects are then swallowed whole at once and are not picked to pieces as is the custom with most other birds. Three grooves on each side of the upper mandible, likewise add strength against lateral bending.

A less visible but nearly unique feature of the bird's appearance, is the fact that it is equipped with long eyelashes, seven in number and four millimeters long. These point downward entirely across the eye and no doubt were evolved for the purpose of protecting the eyes from nettles and grass as the bird searches under grass for its prey. The lashes may also serve to protect the eyes

from the kick of struggling grasshoppers. I do not know of any American birds that are equipped with eyelashes except the owls and the Roadrunner. Those of the owls are very short and do not point downward; those of the Roadrunner are somewhat similar to the ani but by no means so obvious.

A further striking feature of the ani is that its plumage is iridescent. The feathers of the neck, shoulders and upper back are blue-black, distinctly margined with a lighter color, thus producing a scaly appearance. The margins of the neck feathers are silver-grey. Those margined elsewhere are tipped with iridescent greyish-green, thus producing the iridescent appearance above mentioned. The plumage otherwise is of charcoal-black. The legs and feet are strong, black and scaly, while the toes are like those of the cuckoos, two extending forward and two backward. Iridescence is rare among our native birds, the most striking example being the Ruby-throated Hummingbird whose iridescent throat, viewed at the proper angle, reflects its ruby color with the brilliance of a flame.



On removing the skin from the carcass, the belly was found to be much larger than the breast, being abnormally distended with food. The bird had no "crop" for the temporary storage of food, such as that of pigeons, chickens or hawks and in place of a gizzard had a thin-walled stomach pouch into which the food passed directly thru the gullet from the mouth. On cutting open the pouch it was found to be packed with insects, mostly still intact. The contents were wet with digestive juices and the mass was brown in color. Dr. James T. Tanner, of the Department of Zoology, University of Tennessee, kindly agreed to identify the stomach contents and has reported as follows. "Contents.—Grasshoppers; Family Acrididae (Short-horned Grasshoppers), probably 3 species but not readily identifiable. 11 more-or-less whole individuals plus 14 heads (which apparently take longer to digest), making a total of 25. (There were a few other grasshopper parts, but they may have come with the heads). Spiders.—Family Lycosidae (Wolf Spiders). 3 individuals.

End of one unidentified insect, not a grasshopper. The grasshoppers and spiders are both characteristic of pastures and similar places."

The conversion of all this roughage, of wings, claws, heads and entire bodies of grasshoppers, to a consistency suitable for passing on through the lower intestinal tracts, would appear impossible for a bird not equipped with a muscular, gravel abetted gizzard such as is possessed by a turkey. Further, it was surprising that on this cold morning of 29 November, this bird could find so many insects. We know, however, that on mild days in midwinter, large grasshoppers may be flushed in grassy fields and thickets, so evidently they hibernate under leaves and thick grass and the anis have learned where to find them.

The specimen was a mature male in good physical condition with breast well filled out but no fat in evidence. Measurements of the length, wing and tail were 329, 135 and 178 millimeters respectively or 13.00, 5.32 and 7.00 expressed in inches. The long tail was in process of moult, some feathers being still partly in sheath, but one old central tail feather, still in place, enabled taking of the full tail measure. Forward pointing bristles under the lower mandible perhaps served some useful purpose. Some of the features mentioned above are shown in the accompanying drawing.

ALBERT F. GANIER, 2112 Woodlawn Dr., Nashville 37212.

BROWN-HEADED NUTHATCH—On 14 December 1968, Nat Halverson and son Mike observed a small nuthatch visiting their suet feeder, which is located inside Bradley County Line, just northeast of Collegedale, Tennessee. At first glance of this bird at feeder, it was thought to be the Red-breasted Nuthatch (*Sitta canadensis*) which is a sporadic visitor to the area.

A short time later the bird returned with a companion. The birds were studied very closely this time. The size was smaller but very close to the above mentioned species. A very noticeable brown cap and a light spot on the nape, drew much attention. It was also noted there was an absence of the supercilious line. The field marks noted, made the identification very simple. The first record for the Brown-headed Nuthatch (*Sitta pusilla*) for Tennessee had just been recorded.

Benton Basham, T.O.S. member, was called to verify the new record. The birds were seen at close range, fifteen feet, with 7x35 binoculars. All field marks were clearly seen. The author, being very familiar with this species, having seen it in the pine woods in several southern states, had no problem in substantiating the observation. Dr. C. F. Dean, a noted natural history photographer at Collegedale, was called, and excellent color pictures were gotten of our new discovery.

I have heard the un-nuthatch-like call several times since my first observation in mid-December at the Halverson home. The birds have been observed daily since their discovery over two and one half months ago. Many members of the Chattanooga Chapter of T.O.S. have had the opportunity to see, up to now, these elusive avian friends north of the Georgia Line.

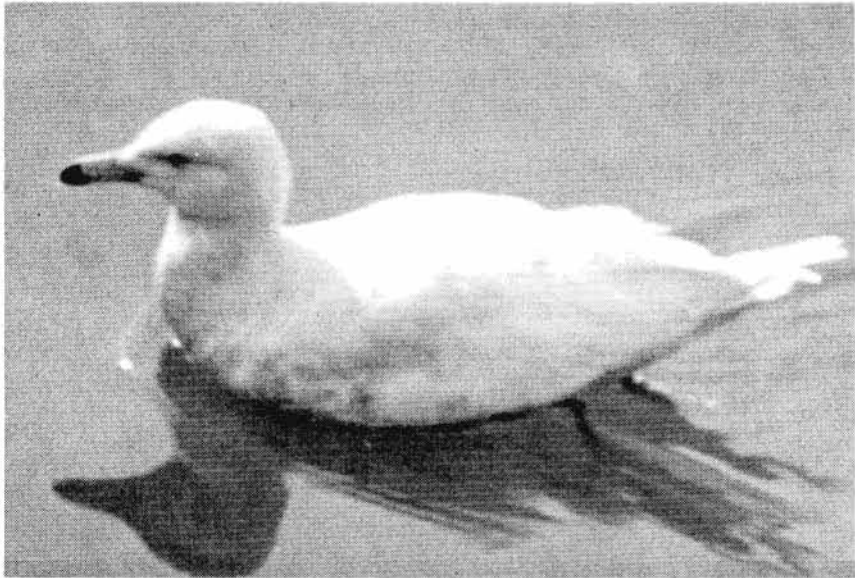
These small up-side-down birds will be followed very closely this spring, with hopes they will linger. And who knows, there might be six or more later on in the summer.

BENTON BASHAM, P. O. Box 426, Collegedale, 37315.

GLAUCOUS GULL—A Glaucous Gull (*Larus hyperboreus*), in the pure white plumage of a second year bird, was found in Old Hickory Lake, east of Nashville, in Davidson County, on 18 January 1969. It was standing on the shore near the west end of the dam, and was perceptibly larger than an immature Herring Gull (*Larus argentatus*) standing close by. On our closer approach it waded into the lake, swam away, soon flushing and flying about 200 yards to the shore at the west end of the dam.

There it proved possible to approach it within 50 feet in a car, and it was studied at leisure, comparing feature by feature with printed descriptions and illustrations. The plumage was entirely pure white, as shown in flight and when standing at close range. The feet were pale pink. A large dark mark near the end of the bill was conspicuous. Eyes were dark brown or possibly black. Head and bill were not noticeably smaller in proportion to the general appearance of gulls which we have observed hundreds of times. At home an extensive search through the literature convinced us the bird was a Glaucous Gull, which neither of us had ever seen before.

Later that day Mrs. Carol Knauth and Laurence O. Trabue separately visited the spot without finding the bird. On 19 Jan. Parmer and Trabue made an extensive search along the shores of the lake without finding the bird. On 25 Jan. we found it below the dam, in the tailwaters, swimming slowly for a



GLAUCOUS GULL.

distance of several hundred yards, close to the eastern (Sumner County) shore, back and forth, apparently feeding. On 26 Jan. we were again on the river bank, with Trabue. The gull was patrolling close to the shore, occasionally

perching on the bank. Parmer obtained both black and white and color photographs at this time. Trabue watched the gull while it found a dead minnow, tossed it aside, then retrieved it and finally swallowed it. Finally, on 2 Feb. it was again observed swimming along the eastern shore of the river, once perching on a drifted log lodged against the shore. On this occasion Mrs. Amelia R. Laskey studied the bird with a 30x scope, and Mrs. Elmore and Miss Mary C. Wood joined in the observations. This was the last observation. On 20 and 23 Feb. it could not be found.

In all of our contacts we found this big gull much less wary than the other 3 species frequenting the same area. At times it seemed tired, or ill, and occasionally closed its eyes. Only once was it seen in flight, although the other gulls present habitually foraged on the wing above the tail-waters, where the Glaucous Gull preferred to swim.

In reading, we learned this species is a very rare straggler in the interior of our country south of the Great Lakes, and this occurrence is one of the farthest south so far reported. It is new to the Nashville area, and apparently new to the state list as well.

HENRY E. PARMER, 3800 Richland Ave., Nashville 37205.

HARRY C. MONK, 406 Avoca Street, Nashville 37203.

COME TO UPPER EAST TENNESSEE
FOR THE FIFTY-FOURTH ANNUAL STATE T.O.S.
MEETING 9, 10, 11 MAY 1969,
AT EAST TENNESSEE STATE UNIVERSITY,
JOHNSON CITY, TENNESSEE

There will be a paper session on 10 May, at which papers describing original research in the area of ornithology may be presented. If you should wish to participate in this paper session, please send the title and a synopsis of your topic and an estimation of the time required for its presentation to the Editor as soon as possible.

ROUND TABLE NOTES

WOOD DUCKS NEST IN TOWN.—*The Migrant* for Sept. 1960 (31:54), I told of a pair of Wood Ducks that nested in a narrow tree-filled little valley behind my home and three blocks from the center of Dyersburg, Tenn. On 27 June of that year, they led 8 tiny ducklings through traffic toward freedom. They have continued to nest there and often the young have been captured by children and thoughtless people, while they crossed the several streets, school grounds, a used car lot, and yards of small houses, enroute to a ditch that leads to Forked Deer River, a mile away.

This year, Mr. Wm. F. Ozment who operates the used car lot, found that on 21 April an employee, in his absence, had rounded up a mother Wood Duck and her ten ducklings as they tried to cross the lot and had driven them into a closed shop building. Mr. Ozment on his return succeeded in getting them all into a crate and drove them at once to the river where he released them. A few days before, on 17 April, it was reported that another Wood Duck and 14 young were seen crossing Cedar street near the ice plant, enroute from the same nesting area to the river. This valley nesting area is about two blocks long and a block wide, well filled with large trees including old beech trees that doubtless afford suitable overhead nesting cavities in their trunks. Our newspapers have been alerted to this annual exodus in hopes of securing interested protection for the duckling's initial journey into the wild.

ROGER GANIER, Dyersburg 38024.

A WOOD DUCK ODDITY—Checking duck traps on hummocks along Long Point ditch on Reelfoot National Wildlife Refuge 7 August 1968, produced an unusual appearing female Wood Duck (*Aix sponsa*).

In handling the duck for sexing and banding, examination of the head presented a most unusual appearance. The tongue was projected downward through the soft portion of the lower mandible about three-quarters of an inch. The tongue had been in this position for some time as the appearance indicated. It was yellowish, rounded, quite firm to touch and dirty from contact with the ground while the duck was feeding. The inside of the mouth seemed quite normal; no discolorations or abrasions were noticed.

The tongue was moistened and gently pushed upward through the mandible where it lay in the mouth in an upward curving position. The duck's mouth closed normally and the hole in the lower mandible was readily visible. The tongue could be seen through the hole. This odd-appearing duck showed no sign of any other injury.

S. W. GIVENS, Reelfoot National Wildlife Refuge.

WHITE-RUMPED SANDPIPER IN SULLIVAN COUNTY—During the spring count of the Elizabethton Chapter T.O.S. on 5 May 1968, four White-rumped Sandpipers (*Erolia fuscicollis*) were sighted together at the fish hatchery near Blountville. The weather varied from cloudy to sunny with intermittent gusts of wind. The temperature ranged from 55° to 60°. Observation time was from 11:30 a.m. to 1:00 p.m.

The observers were Mrs. Harold Dillenbeck, with 6x30 Micron binoculars, Mrs. George N. Dove, with 7x35 Selsi binoculars, and Joy Dillenbeck, with 8x30 Tasco binoculars.

Though White-rumped Sandpipers are not common in East Tennessee during spring migration, the unusual aspect of this observation was four together with no other "Peep" sandpipers around.

The first small sandpiper was sighted with four Lesser Yellowlegs on the muddy bank of a partially drained pond to the right side of the road approaching the hatchery. Some of the ponds in this area had cattails growing along the edges. Cattails also fringed the edge of the creek which ran completely around the hatchery. Near a pond behind the one visited by the sandpipers were some Rusty Blackbirds. Among the cattails by the creek were Red-winged Blackbirds.

Observation of this "Peep" was from 20 to 30 minutes at a distance of nine yards to six feet. The under parts, except for the neck and breast, were a very bright white, the back quite rusty. (Peterson, *A Field Guide to the Birds*, p. 96: "In Spring it [White-rumped Sandpiper] is quite rusty; in fall, grayer than any other 'Peep'.") The white extended high on each side and appeared to go under the rear of the wings. Scale markings set off pronounced patterns on the rusty back. Some buff appeared in the markings. The sandpiper stood from one fourth to one third as high as the yellowlegs. Its body was smaller than a Robin. The tail seemed slightly notched. Both the legs and the bill were dark brown or black. This bird did not flush as did the yellowlegs. Its call sounded like a faint "peep".

The only observer with former experience with White-rumped Sandpipers was Mrs. Dillenbeck; Therefore, we consulted "Peterson" and "Robbins" (Robbins, *et. al. Birds of North America*). These were the results:

1. Not Pectoral—It has a sharp line between the breast and belly and yellow legs.
2. Not Sanderling—It runs swiftly instead of working slowly and has a white wing stripe and a stockier body.
3. Not Baird's—It is unlikely to be in this area.
4. Not Least—It has yellow legs as summer approaches, and is black along the edge of its wings.
5. Not Semipalmated—Its breast is more streaked than the bird seen.
6. Not Western—It seems to be only a fall migrant in this area and feeds in deep water, sometimes submerging its head. This bird probed in mud.
7. White-rumped?—It matched except the bird was not flushed, and the white rump was not seen.

After study and discussion, the ponds on the left of the road were checked. The third pond in the group had been drained; only puddles an inch or so deep remained here and there. In the mud were five Lesser Yellowlegs, a Greater Yellowlegs, a Short-billed Dowitcher, a Solitary Sandpiper, and four "Peeps." The Solitary was flying in and out. With careful listening the call of the "peeps" was "jeep" not "peep." Observation lasted about fifteen minutes and from a distance of eleven yards to ten feet. These birds were identical in appearance

to the "peep" spotted earlier. The other birds flushed as approached, but a clap of hands was necessary to flush the small sandpipers. All four showed solid white rumps. They flew about twenty feet across the pond and started feeding in the mud again.

One of the ponds in this group held an American Coot. Along the creek, in the woods, and on the steep bank that sloped to the ponds were swallows, Cardinals, Blue Jays, and other small birds. We did not return to the first "peep" observed, as we were satisfied it was of the same species.

MRS. GEORGE N. DOVE, 1801 Seminole Dr., Johnson City 37601.

NASHVILLE'S THIRD SAW-WHET OWL RECORD. At about 7:30 p.m., 28 October 1968, the writer found a Saw-whet Owl (*Aegolius acadicus*) in the dry gravel creek bed that is the approach to his summer camp 20 miles west of Nashville. Apparently, the bird flushed as it was touched by the car's headlights. It flew across the creek bed and was lost in an instant as the writer said to his companion, H. C. Brehm, "Why that looked like a Woodcock!" The car stopped and Brehm managed to keep the bird in sight and in a few seconds pointed a very bright flashlight out the left window. There, just about 5 feet from the window was a tiny owl perched on a small limb. Instantly it was realized that it was not a Screech Owl, due to the distinctive face pattern, large amount of white on the sides of the neck and chin, and the broad vertical red stripes on a white background for its breast and abdomen. The bird remained perched for about one minute in the bright light.

The next day a search was made of available literature, and a specimen in A. F. Ganier's collection was checked. The plumage proved to be that of an adult bird and very close to that of a photograph on page 431 of *Water, Prey, and Game Birds of North America*.

HENRY E. PARMER, 3800 Richland Ave., Nashville 37205.

PIGEON HAWK NEAR REELFOOT—On 10 November 1968, Janice and I spent the day at Reelfoot Lake. We were looking for birds of prey including any Bald Eagles that might have arrived for the winter. The weather was cloudy and cool and a weak cold front was forecast to pass through the area that night, bringing with it a chance of snow.

About 2:00 p.m., we were driving just east of Tiptonville. As we passed a light pole I spotted a small hawk perched on top. I barely got a glimpse of him but he looked different from the numerous Sparrow Hawks that we had been seeing. I turned around and drove back near the pole on which he was perched.

The most distinct feature of the hawk was a long barred tail. He appeared larger than a Sparrow Hawk and the upper portion of his body was a bluish-gray. He was engaged in eating a small animal and he seemed unaware of the passing traffic until a horn was sounded by a passing car. This caused him to leave his prey and fly in a small circle, returning to the same pole. While he was flying his pointed wings confirmed our identification. This bird was a male Pigeon Hawk (*Falco columbarius*).

The traffic was so heavy that I was forced to move down and park in a nearby driveway. As I walked back to the vicinity of the hawk, he spotted me and flew down to the next pole with his prey. I was able to see the prey well enough to tell it was a small bird. He seemed unusually tame and allowed me to approach fairly close. By the way he ate the bird he seemed to be hungry.

I continued to observe him for about twenty minutes thru 9 X 36 binoculars. When we left the area he was still perched on the pole. However, when we returned about two hours later with other members of the Reelfoot Chapter, we were unable to locate him. This is the second time that I have seen a Pigeon Hawk. On 22 October 1967, I was with Mr. and Mrs. Ben Coffey, Jr. and other members of the Memphis Chapter when one was sighted on the new airport at Reelfoot Lake (*The Migrant* 38:94). We were able to observe this bird fairly well but he was not as tame as the one mentioned above.

Since 1962, there have been ten other records of Pigeon Hawks published in *The Migrant*. One was at Nashville, three were in Knox County, three were near Chattanooga and three were reported on the Annual Fall Hawk Count in East Tennessee.

KENNETH LEGGETT, Dyersburg 38024.

VERMILION FLYCATCHER AGAIN RECORDED AT REELFOOT—About noon on 23 November 1968, Janice and I observed a male Vermilion Flycatcher (*Pyrocephalus rubinus*) near the new airport at Reelfoot. We observed the bird for about twenty minutes through 9 X 36 binoculars as he flew around in a cypress on the edge of the water.

The flycatcher actions of the bird coupled with its brilliant red sides and head; black back and wings make it easy to identify. It also has a black stripe running through its eye.

The weather was unusual. The temperature was 70° F. and the wind out of the southwest at 18-22 knots with gusts to 26 knots. That night a weak cold front passed through the area.

I informed Betty Sumara of Tiptonville about seeing the bird and on 25 November she and Jean Markam went to the site and found a male Vermilion Flycatcher.

I have checked a number of sources and all give the range of the Vermilion Flycatcher as being in the southwestern United States and northern Mexico, casual in winter along the Gulf Coast to Florida. There is no mention of it ranging this far northeast.

There are two other published observations in *The Migrant* of Vermilion Flycatchers at Reelfoot. Mr. Arlo Smith in his observation (*The Migrant* 36:14) reported seeing at least two male Vermilion Flycatchers on 15 October 1961. Guy Hogg also reported one 27 December 1967 (*The Migrant* 39:12). Through personal contact, John DeLime at Samburg reported to me, that he had seen one in December 1961 and one in December 1966. Mrs. John Lamb of Dyersburg reported that she had seen one on 14 May 1960 while boating at Reelfoot Lake.

I am inclined to think that the Vermilion Flycatcher may be a more common fall visitor at Reelfoot than has been generally believed.

KENNETH LEGGETT, Dyersburg 38024.

THE SEASON



CHARLES R. SMITH, *Editor*

The months of November, December, and January were characterized by cold, dry weather across most of the state. Four inches of snow was reported from the Ridge and Valley and Mountain Regions for the first week of January.

It was the general impression of many observers that the populations of small land birds, such as sparrows, were reduced this winter. Though such trends are difficult to evaluate quantitatively, the writer has noted a definite scarcity of such species as the Rufous-sided Towhee and White-throated Sparrow. Waterfowl populations on the TVA lakes also appeared to be somewhat reduced.

Northern finches were represented across the state primarily by the Evening Grosbeak, with all regions reporting their occurrence regularly and in fair numbers. Reports of the Pine Siskin and Purple Finch were sporadic, with these species occurring in only small numbers across the state. Red Crossbills were reported only from the Bristol area of the Ridge and Valley Region and from the Mountain Region.

Outstanding records for the period include the Ground Dove at Savannah, Groove-billed Ani at Dyersburg, Glaucous Gull at Old Hickory Lake, and Brown-headed Nuthatch at Chattanooga. Each of these observations represented a new state record. Further details of these observations may be found in articles elsewhere in this issue.

Other records of interest include the Vermilion Flycatcher at Reelfoot, Surf Scoter at Nashville, White-winged Scoter at Chattanooga, Harris' Sparrow at Nashville, and Western Sandpiper at Cherokee Lake. Sandhill Cranes were reported from the Plateau and Basin and Ridge and Valley Regions. Summer species wintering in the state included the Brown Thrasher in the Ridge and Valley Region, Baltimore Oriole at Dyersburg, and Yellow-breasted Chat at Memphis. Details of the above observations may be found in the reports which follow.

WESTERN COASTAL PLAIN REGION—*Loon-Hawks*: Common Loon: 1 Jan. (1) S. Canada Goose: 23 Nov. (500) R. Gadwall: 23 Nov. (300) R. American Widgeon: 23 Nov. (1500) R. Shoveler: 23 Nov. (150) R. Common Goldeneye: 1 Jan. (40) S. Bufflehead: 1 Jan. (36) S. Sharp-shinned Hawk: 23 Nov. (2) R, 13 Jan. (1) S. Cooper's Hawk: 23 Nov. (1) R. Bald Eagle: 22 Nov. (7), 11 Jan. (19) R. Marsh Hawk: 10 Nov. (2) R, 19 Jan. (3) S. Pigeon Hawk: 10 Nov. (1) R (KL).

Killdeer-Oriole: Killdeer: 10 Nov. (95) R, 23 Nov. (93) R. American Woodcock: beginning 4 Feb. (2) singing, compared to (16) all winter last year. S. Ground Dove: 7 Nov. (1), retrap of October banding. S. Groove-billed Ani: 29 Nov. (1) D (KL), now in Ganier collection. Whip-poor-will: 25 Nov. (1) freshly dead downtown M (VJ, BC, LC). Ruby-throated Hummingbird: 4 Nov. (1) R (EC). Vermilion Flycatcher: 23 Nov. (1), 8 Dec. (1) R (KL, JL). Red-breasted Nuthatch: reports throughout season and region. House Wren: 12 Jan. (1) Clarkdale, Ark. (BC). Hermit Thrush: 18 Jan. (1) D. Yellow-breasted Chat: 12-16 Dec. (1) downtown bank holly hedge in M (VJ), 24 Dec.-5 Jan. (1) M (LC), third winter record. Baltimore Oriole: all winter in yard (1, female) D (JT).

Grosbeak-Longspurs: Evening Grosbeak: 23 Nov. (11) Henderson (EdC), (2) R (KL); 26 Nov.-2 Dec. (8) Jackson (EdC); 24 Dec. (4) Brownsville (ER); 31 Dec. (2) D (JH); 6 Jan. (2) D; 12 Jan. (2) Humboldt; remaining grosbeak observations are from Shelby County and are their first records ever from each location: 24 Nov. (7) Whitehaven, 6 Dec. (9) Bartlett, 5 Jan. (15) Millington (OWs), 8 Jan. (18) Arlington, 30 Jan. (40) Ellendale (JS), 30 Jan. (12) Germantown (HDs), first Memphis record 25 Dec. (1), 26 Dec. (13) (WLW), up to 22 at 4 other M localities in Jan. and later, 16 banded (WLW). Purple Finch: Dec. and Jan. (100) D (AB), common M. Pine Siskin: 23 Nov. (3) D (CH). Longspurs: none seen in four-county area near M.

Locations: D—Dyersburg, M—Memphis, R—Reelfoot Lake, S—Savannah.

Observers: AB—Ann Brigham, BC—Ben B. Coffey, Jr., LC—Lula Coffey, CC—Charlie Cox, EdC—Mrs. Ed Carpenter, EC—Eugene Cypert, CH—Celia Hudson, JH—Mrs. Jack Hudson, VJ—Victor Julia, JL—Janice Leggett, KL—Kenneth Leggett, DP—David Patterson, ER—Ella Ragland, JS—Mrs. Albert Sabatier, JT—Judy Taylor, OWs—Mr. and Mrs. Orrin Williams, WLW—Dr. W. L. Whittemore.

DAVID E. PATTERSON, Harbert Hills Academy, Savannah 38372.

CENTRAL PLATEAU AND BASIN REGIONS—*Loons-Ducks*: Common Loon: 17 Nov. (4) WR (KD, FW), 7 Dec. (1) BL (HCM, HEP), 2 Jan. (2) WR (KD, RTB). Horned Grebe: 4 Nov. (1) RL (MCW), from 17 Nov. (1) to a peak of (16) 9 Jan. WR (KD), 19 Jan. (32) OHL (LOT, HEP). Pied-billed Grebe: from 17 Nov. (3) to a peak of (28) 26 Dec. WR (KD), an occasional record NA and CV. Great Blue Heron: 17, 26 Dec. (1) LD (RTH), 2 Jan. (2) WR (KD, RTB), 22 Jan. (2) OHL (MCW). Canada Goose: 16 Nov. (4000) DRR (NC), from 17 Nov. (20) to a peak of (104) 26 Dec. WR (KD), scarce NA with 16 Nov. (1) and 22 Jan. (6), both OHL (MCW). Blue Goose: 16 Nov. (12) DRR (NC). Mallard: 16 Nov. (8000) DRR (NC), from 17 Nov. (250) to a peak of (800) 8 Dec. WR (KD), scarce NA with 31 Dec. (1) BL (HEP) being only record there, and 16 Nov. (8) OHL (LOT) being peak there. Black Duck: only duck near normal NA; 16 Jan. (40) OHL (LOT), 18 Jan. (76) BL (HCM, HEP), 9 Jan. peak (150) WR (KD). Gadwall: 28 Oct. (105) down to 9 Jan. (1) WR (KD) only report. Pintail: 16 Nov. (200) DRR (NC), a peak (13) 8 Dec. WR (KD), none NA. Green-winged Teal: 8 Dec. (3), 26 Dec. (1) WR (KD). American Widgeon: 16 Nov. (500) DRR (NC), 2 Jan. a peak of

(44) WR (KD), no reports NA. Redhead: 26 Dec. (7), 2 Jan. (12) WR (KD), (2) occasionally during period RL (MCW). Ring-necked Duck: 25 Nov. (175) down to (40) 31 Jan. RL (MCW); 8 Dec. (31), up to (165) 2 Jan., then down to (5) 9 Jan. WR (KD); very few seen elsewhere. Canvasback: 5 Dec. a peak of (8) RL (MCW), 25 Jan. (2) OHL (HCM, HEP), 8 Dec. a peak of (23) WR (KD). Lesser Scaup: 2 Nov. (125) ML, WB (MCW), 18 Jan. (22) BL (HEP), only record there; end of period (30) RL (MCW), far below normal. A peak of only (7) 26 Dec. WR (KD). Common Goldeneye: 5 Dec. (12) RL (MCW) and about that number during remainder of period; 26 Dec. a peak of (19) WR (KD); 19 Jan. about (100) OHL (LOT, HEP). Bufflehead: from 21 Nov. (2) to a peak of (6) 9 Jan. RL (MCW); 8 Dec. a peak of (8) WR (KD); 19 Jan. (11) OHL (LOT, HEP). Surf Scoter: from 11 Nov. occasionally to 26 Dec. (1) RL, at times by (MCW, EE, MB). Hooded Merganser: 14 Nov. (2), 20 Nov. (9), 9 Dec. (1) BL (HEP), 2 Dec. (9) RL (LOT), 2 Jan. a peak of (40) WR (KD). Common Merganser: 9 Jan. (3) RL (MCW) only report. Red-breasted Merganser: 17 Nov. (1), 2 Jan. (2) WR (KD). No reports of ducks not listed.

Vultures-Gulls: Black Vulture: 27 Nov. (87) MC (LOT), probably a roost. Golden Eagle: about 10 Dec. (1) WB (HC *vide* MCW). Bald Eagle: 16 Nov. (1) DRR (NC), most unusual was one to five during Jan. and Feb. LD (RTH); peaks were 12 Dec. (5) and 20 Jan. (4). Marsh Hawk: 16 Nov. (2) DRR (NC), 18 Nov. (1) BL (HEP). Osprey: 4 Dec. (1) LD (RTH) (only second Dec. date known to writer for Tenn). Sandhill Crane: 6 Nov. (3) TF (HOT) (third middle Tenn. record). American Coot: 20 Nov. (200) to 31 Jan. (150) RL (MCW); 17 Nov. (2300) to 9 Jan. (230) WR (KD); scarce OHL Common Snipe: 22 Nov. (1) BL (HEP), 11 Jan. (1) WB (MCW). Least Sandpiper: 7 Dec. (3) PPL (HCM, HEP), 16 Nov. (43) DRR (NC). Glaucous Gull: 18 Jan. (1) in 2nd year plumage OHL (HCM, HEP), again 25 Jan. (HCM, HEP) and 26 Jan. with (LOT). Herring Gull: 19 Jan. (6) (LOT, HEP); peak OHL 2 Jan. (8); peak WR (KD). Ring-billed Gull: 13 Dec. (73) BL (HEP); peak OHL 18 Jan. (100) (HCM, HEP); peak WR 9 Jan. (80) (KD). Bonaparte's Gull: 16 Nov. (25) OHL (LOT) down to (3) 19 Jan. (LOT, HEP).

Owls-Cowbirds: Great Horned Owl: 4 Dec. (3) LD (RTH), (2) near H all period (SB). Belted Kingfisher: 3 Jan. (17) RR-WB (MCW). Eastern Phoebe: (1) most Dec. and 6 Feb. LD (RTH), no reports elsewhere. Horned Lark: (50) near dam OHL all period (NC), 7 Jan. (1) LD (RTH). White-breasted Nuthatch: several reports suburban yards NA where never previously seen; (ARL) (1) H, first in 40 years there! Red-breasted Nuthatch: scattered reports NA over period. Wrens: all seem scarce NA. Robin: scarce NA, absent CV. Eastern Bluebird: scarce NA. Golden-crowned Kinglet: 1-3 during Dec. LD (RTH). Cedar Waxwing: 8 Nov. (100) NA (SB), 5 Dec. (15), 26 Jan. (14) LD (RTH). Myrtle Warbler: almost absent NA, 11 Jan. (1) LD (RTH). Baltimore Oriole: 8 Nov. (1) male bathing H (ES). Rusty Blackbird: 14 Nov. (5) H (JOE), 7 Dec. (10) BV (HCM, HEP), 27 Dec. (21) TJ (HCM, LOT, HEP). Common Grackle: 18 Jan. (100,000) WB (MCW), almost absent NA. Brown-headed Cowbird: 28 Nov. flock (250) CC (MCW).

Dickcissel-Sparrows: Dickcissel: 7 Dec. (1) H (HH). Evening Grosbeak:

NA's largest invasion; first was 21 Nov. (1) H (JW), then several reports (1-3); largest numbers were at H (GRM) with (1) 21 Dec., then daily from 28 Dec. (1) up to a peak of (42) 29 Jan; some other reports are: 25 Nov. (27) WB, H (HB), 11 Jan. (11) WB (MCW), 27 Jan. (12) CV, H (TT). Purple Finch: widely distributed NA, but in smaller flocks than usual. (1-8) during Dec., Jan. LD (RTH). Pine Siskin: only report from (KAG), NA. 28 Nov. (6), 30 Nov. (10), both BS, and 10 Jan. (1), 27 Jan. (3), both H. American Goldfinch: larger numbers than usual NA, to (85) LD (RTH). Slate-colored Junco: numbers below normal NA. Field Sparrow: only sparrow that may be holding its own NA. Harris' Sparrow: 10 Dec. (1) H (HCM), 12 Dec. (1) H (HH), 6, 7 Jan. (1) H. (EC), 16 Jan. (1) MR, NA (FM, ABH). White-throated Sparrow: very scarce NA. Swamp Sparrow: very scarce NA. Song Sparrow: well below normal NA.

Locations: BL—Bush Lake, BS—Basin Springs, BV—Buena Vista, CC—Coffey County, CV—Cookeville, DRR—Duck River Refuge, Hustburg section, H—home area, LD—Lilydale area, MC—Marshall County, ML—Morton Lake, Woodbury, MR—Moran Road, Nashville, NA—Nashville Area, OHL—Old Hickory Lake, PPL—Percy Priest Lake, RL—Radnor Lake, RR—River Road, Woodbury, TF—Todd Farm, Murfreesboro, TJ—Two Jays Sanctuary, WB—Woodbury, WR—Woods Reservoir.

Observers: MB—Mike Bierly, SB—Sue Bell, HB—Mrs. Henry Bratton, RTB—Ralph T. Bullard Jr., HC—Howard Campbell, NC—Nashville Chapter T.O.S., EC—Elizabeth C. Collins, KD—Kenneth Dubke, JOE—John O. Ellis, EE—Erlene Elmore, LF—Louis Farrell, Jr., HH—Helen Hodgson, ABH—Mrs. A. B. Herron, RTH—Roy T. Hines, ARL—Amelia R. Laskey, GRM—Mr. and Mrs. G. R. Miller, HCM—Harry C. Monk, FM—Fanny Murphy, HEP—Henry E. Parmer, ES—Ellen Stringer, TT—Thelma Tinnon, HOT—Henry O. Todd, LO Lourencia O. Trabue, JW—Jesse Wills, FW—Frank Ward, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville 37205.

EASTERN RIDGE AND VALLEY REGION—*Loons-Geese:* Common Loon: regular in small numbers, max. 7 Dec. (20) BWP (KD), 11 Jan. (13) CkL (TK), 13 Nov. (15) SHL (WC). Pied-billed Grebe: regular in varying numbers, max. 10 Nov. (37) BL (CRS, JBS). Double-crested Cormorant: 14 Dec. to 9 Jan. (3-regularly) BWP (KD, JD, *et. al.*), 15 Dec. (1) CkL (TK). Great Blue Heron: regular, max. 7 Dec. (77) HRA (KD), 30 Nov. (15) HR (RH), 18 Jan. (15) HR (RN, RH), 25 Jan. (33) PHL (LRH, CRS), 14 Nov. (14) SHL (WC, JW). Green Heron: 4 Nov. (1 appeared sick or injured) BWP (KD). Black-crowned Night Heron: 9 Nov. (4) HR (RH), 16 Nov. (1) HC (TK), 16 Nov. (12) HR (RH), 24 Nov. (3) HR (RH), 30 Nov. (4) HR (RH), 14 Dec. (1) TRG (JD). Canada Goose: a few scattered, (1000 to 3000) during Nov. Dec. Jan. at HRA (KD). Snow Goose: 10 Nov. (2) HRA (KD). 4 Nov. (9) HRA (KD), 10 Nov. (1) HRA (KD).

Ducks-Vultures: Mallard: regular, Max. 11 Jan. (240) CkL (TK). Black Duck: regular, max. 14 Dec. (685) HRA and BWP (KD). Gadwall: regular in small numbers, max. 17 Nov. (270) PHL (WC). Pintail: 9 Nov. (8) HR (RH), 14 Dec. (2) TRG (JD), 15 Dec. (2) WBL (JD), max. 16 Jan. (43)

HRA (KD). Green-winged Teal: Chattanooga area only, 20 Dec. (7) BWP (KD), 14 Dec. (6) TRG (JD), max. 4 Nov. (32) HRA and SB (KD), 16 Jan. (1) HRA (KD). American Widgeon: regular, max. 11 Jan. (220) CkL (TK), 15 Nov. (212) BL (GD, HD). Shoveler: 24 Nov. (4) HR (RH), 30 Nov. (40) HR (RH) only records. Wood Duck: few, 6 Nov. (1) PHL (GD, HD), 16 Nov. (3) HR (RH), 23 Jan. (2) MP (KD). Red-head: 4 Nov. (44) SB, BWP, HRA (KD), max. 13 Nov. (54) SHL (WC), 7 Dec. (12) BWP (KD), 16 Jan. (1) BWP (KD). Ring-necked Duck: scattered records during period, max. 11 Jan. (400) CkL (TK). Canvasback: only 7 Dec. (4) BWP (KD). Greater Scaup: reported only in lower portion of region, first 7 Dec. and max. 16 Jan. (88) BWP (KD). Lesser Scaup: few during period in most areas, max. 13 Nov. (221) SHL (WC). Common Goldeneye: from 13 Nov. (3) SHL (WC) to 16 Jan. (8) BWP (KD), max. 25 Jan. (65) BL (LRH, CRS). White-winged Scoter: only 5 Jan. (1-shot) ChL (Ann Farmer *vide* JD). Bufflehead: a few regular, max. 11 Jan. (130) CkL (TK). Ruddy Duck: 2 Nov. (7) BL (GD, HD), 4 Nov. (5) SB (KD), 10 Nov. (6) HR (RH), max. 13 Nov. (31) SHL (WC), 16 Nov. (10) HR (RH), 7 Dec. (2) BWP (KD). Hooded Merganser: 2 Nov. (3) BL (GD, HD), 14 Nov. (22) SHL (WC, JW), regular in Chattanooga area, max. 24 Nov. (45) BWP (JD). Common Merganser: only 10 Nov. (1) BWP (KD) and 7 Dec. (1) HRA (KD). Red-breasted Merganser: 13 Nov. (4) SHL (WC), 14 Nov. (2) SHL (WC, JW), 20 Dec. (1) BWP (KD). Black Vulture: regularly (4-5) between Col and PV (BB), 13 Nov. (5) SHL (WC), 5 Dec. (3) SHL (WC).

Hawks-Plovers: Sharp-shinned Hawk: 3 Nov. (1) SHL (WC), 1 Dec. (1) SHL (WC), 3 Jan. (1) MP (KD, RTB). Cooper's Hawk: 13 Nov. (1) SHL (WC), 1 Dec. (2) SHL (WC), 19 Jan. (1) KC (TK). Red-tailed Hawk: few regularly, max. 2 Jan. (15) BC (KD, RTB). Red-shouldered Hawk: 24 Dec. (1) WBL (JD), 4 Nov. (1) SB (KD), 20 Dec. (1) HRA (KD), 16 Jan. (1) BWP (KD), 23 Jan. (1) MP (KD). Bald Eagle: 16 Nov. (1) HR (RH), 24 Dec. (2) WBL (JD), 31 Dec. (1) WBL (JD). Marsh Hawk: 9 Nov. (1) HR (RH), 16 Nov. (2) HR (RH), 7 Dec. (1) HRA (JD), 15 Dec. (1) WBL (JD), 31 Dec. (1) WBL (JD). Osprey: only record, last 6 Nov. (1) BL (GD, HD). Sandhill Crane: 10 Nov. (3) SB (ML), 10 Nov. (276) ChL (JD). American Coot: regular, significant numbers: 9 Nov. (2000) HR (RH), 13 Nov. (550) SHL (WC), 16 Nov. (500) HR (RH), max. 14 Dec. (6800) TRG (JD). Killdeer: small numbers regularly, max. 10 Nov. (590) HRA and SB (KD). American Golden Plover: 12 Nov. (3) HRA (KD). Black-bellied Plover: 4, 10 Nov. (1) SB (KD).

Woodcock-Gulls: American Woodcock singing regularly at AM since 27 Dec. (KD, *et. al.*). Common Snipe: regular, max. 12 Nov. (108) SB (KD). Lesser Yellowlegs: 4 Nov. (3) HRA (KD), 10 Nov. (1) SB (KD). Pectoral Sandpiper: 10 Nov. (1) SB (KD), 7 Dec. (1-injured) SB (KD). Least Sandpiper: 28 Nov. (2) CkL (TK), regular in Chattanooga area, max. 16 Jan. (43) HRA (KD). Dunlin: regular in Chattanooga area, max. 12 Nov. (125) HRA (KD), 16 Nov. (10) CkL (TK), 23 Nov. (8) CkL (TK), 28 Nov. (1) CkL (TK). Semipalmated Sandpiper: 23 Nov. (28) CkL (TK), 28 Nov. (3) CkL (TK). Western Sandpiper: 23 Nov. (2) CkL (TK). Herring Gull: regularly in small numbers, max. 14 Nov. (8) SHL (WC, JW). Ring-billed

Gull: regular, significant numbers: 14 Nov. (89) SHL (WC, JW), 6 Jan. (250) BWP (JD), Dec. and Jan. (1000) CkL (TK). Bonaparte's Gull: 13 Nov. (3) SHL (WC), 15 Dec. (28) CkL (TK), 20 Dec. (3) HRA (KD).

Owls-Swallows: Barn Owl: regular at a.m. (KD, JD) and during Nov. and Dec. G (RN). Great Horned Owl: regular G (RN) during Nov. and Dec., 7 Dec. (1) HRA (JD), 2 Jan. (1) SHL (WC, TMH). Barred Owl: 3 Dec. (1) HRA (JD), 7 Dec. (1) HRA (JD). Red-headed Woodpecker: 3 Nov. (1) SHL (WC). Tree Swallow: 9 Nov. (1) HR (RH), 16 Nov. (1) HR (RH).

Nuthatches-Warblers: Red-breasted Nuthatch: reported regularly in small numbers over the region. Brown-headed Nuthatch: two regularly since Dec. in Chattanooga area (see article, this issue) (KD). Winter Wren: few records, 2 Nov. (2) G (RN), 13 Nov. (1) G (RN), 15 Dec. (1) WBL (JD), 29 Dec. (2) SHL (WC). Brown Thrasher: 24 Nov. (1) HR (RH), 13 Jan. (1) JC (KJ), one daily at G during Nov., Dec. and Jan. (ED). Hermit Thrush: 4 Nov. (1) SHL (WC), 29 Dec. (1) SHL (WC). Water Pipit: regular (1 to 25) HRA and SB (KD) during period. Cedar Waxwing: regular in good numbers in Chattanooga area with max. (300) Col. (BB), not mentioned in other reports. Pine Warbler: two during period at Col (BB, *et al.*). Palm Warbler: 17 Nov. (1) BWP (JD).

Finches: Evening Grosbeak: first 9 Nov. (7) Col (RS) then regular in Chattanooga area with max. of 50 (BB); 15 Nov. (5) B (CJL) with numerous small flocks in Bristol area up to 50 birds; 29 Nov. (10) G (RN) and during months of Dec. and Jan. numerous flocks of 10 to 20 or more at feeders in Greeneville area; 18 Dec. (40) JC, smaller numbers throughout the period at Elizabethton; 5 Jan. (12) Blount County (TK). Purple Finch: in limited numbers from most areas during period. Pine Siskin: noted only from Chattanooga with report: "regular in small numbers 1-5 (JD, KD, BB, *et al.*)." Red Crossbill: 29 Dec. (17) SHL (WC), 19 Jan. (19) SHL (WC, TMH). Grasshopper Sparrow: 10 Nov. (1) BL (CRS, JBS), 15 Dec. (1) "banded" Col (ML, RS). Vesper Sparrow: 4 Nov. (10) SB (KD), 10 Nov. (25) AM (KD), 13 Nov. (1) SHL (WC). Chipping Sparrow: 15 Nov. (1) BL (GD, HD), 4 Jan. (1) Col (BB). Fox Sparrow: reported in small numbers and irregularly throughout region.

Locations: B—Bristol, BWP—Booker Washington State Park, BL—Boone Lake, BC—Blount County, ChL—Chickamauga Lake, CkL—Cherokee Lake, Col—Collegedale, G—Greeneville, HR—Holston River near Rogersville, HRA—Hiwassee River Area, HC—Hamblen County, JC—Johnson City, KC—Knox County, MP—Morse Pond, Georgia, PHL—Patrick Henry Lake, PV—Pikeville, SB—Savannah Bay, SHL—South Holston Lake, TRG—Tenn. River Gorge, WBL—Watts Barr Lake.

Observers: FA—Fred Alsop, BB—Benton Basham, RTB—Ralph T. Bullard, WiC—Wilford Caraway, WC—Wallace Coffey, ED—Elva (Mrs. Chester) Darnell, JD—Jon DeVore, HD—Mrs. Harold Dillenbeck, GD—Mrs. George Dove, KD—Kenneth H. Dubke, HCE—H. C. Epperson, TMH—Tim M. Hawk, LRH—Lee R. Herndon, RH—Robert Holt, RHu—Richard Hughes, KJ—Katherine Jones, TK—Tom Koella, ML—Mike Lilly, CJL—Mrs. Charles

J. Lowery, FO—Frances (Mrs. Earl) Olson, JWa—Jack Wagner, MW—Mark Wagner, GWW—Geo. W. Wallace, JBS—James B. Shepherd, CRS—Charles R. Smith, RS—Roger Swanson, JTT—James T. Tanner, JWa—Jack Wagner, MW—Mark Wagner, GWW—Geo. W. Wallace, JW—Johnny Wood, BY—Bill Yambert.

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EASTERN MOUNTAIN REGION—*Loons-Sparrows*: Common Loon: 9 Nov. (2) WaL (CRS). Pied-billed Grebe: 17 Dec. (3) LL (FA, JMC). Mallard: 9 Nov. (1) WaL, 24 Jan. (14) WaL, (CRS). Lesser Scaup: (6-8) throughout period on WiL (CRS). Common Goldeneye: 17 Dec. (1) LL (FA, JMC). Bufflehead: (6-30) throughout period on WiL (CRS); 17 Dec. (1) LL (FA, JMC). Ruddy Duck: 17 Dec. (2) LL (FA, JMC). Hooded Merganser: 17 Dec. (1) LL (FA, JMC). Ruffed Grouse: 17 Dec. (2) SF (FA, JMC), 1 Nov. (2) CNF (RE, TL), 9 Nov. (1) CCG (RN). Turkey: 17 Dec. (3) CC (FA, JMC), 1 Nov. (4) CNF (RE, TL). American Woodcock: 31 Jan. (1) singing MC (CRS). Screech Owl: 1 Nov. (2) CNF (RE, TL). Phoebe: 17 Dec. (2) CC (FA, JMC). Red-breasted Nuthatch: (12-50) throughout period on RM (FWB); only scattered records of individual birds at lower elevations; 1 Nov. (4) CNF (RE, TL). Winter Wren: 9 Nov. (1) CLG (RN) Robin: flock of (250) 10 Nov. EGC (LRH). Myrtle Warbler: 17 Dec. (1) CC (FA, JMC). Cedar Waxwing: 12 Nov. (20) MC (CRS). Rusty Blackbird: 9 Nov. (1) EGC (LRH). Evening Grosbeak: throughout the period in E; max. 30 Nov. (100) E (RDM); 3 Nov. small flock in G, first of season (JMC). Pine Siskin: 3 Nov. (70) RM (FWB). Red Crossbill: 3 Nov. (6) RM (FWB), 17 Nov. (1) RM (FWB), 18 Dec. (3) MC (CRS); small flock seen throughout period G (AS). Fox Sparrow: 3 Nov. (4) RM (FWB).

Locations: CC—Cades Cove, CCG—Casi Creek, Greeneville, CLG—Clark's Creek, Greeneville, CNF—Cherokee National Forest, E—Elizabethton, EGC—Elizabethton Golf Course, G—Gatlinburg, LL—Laurel Lake, MC—Milligan College, RM—Roan Mountain, SF—Spence Field GSMNP, WaL—Watauga Lake, WiL—Wilbur Lake.

Observers: FA—Fred Alsop, FWB—Fred W. Behrend, JMC—James M. Campbell, RE—Danny Ellis, LRH—Lee R. Herndon, TL—Tom Lane, RDM—Roby D. May, CRS—Charles R. Smith, AS—Arthur Stupka.

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NOTICE TO MEMBERSHIP

It has been requested by our Secretary, Helen B. Dinkelspiel, that all members review the minutes of the "T.O.S. Annual Meeting, 1968" as recorded in *The Migrant* 39:36-39. Special attention should be paid to both the Board of Directors' Meeting and the General Business Meeting, so that we will be familiar with them at the next Annual Meeting this May.

PREPARATION OF COPY FOR PUBLICATION

The purpose of *The Migrant* is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders. Articles for publication originate almost exclusively from T.O.S. members.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

Some suggestions to authors for the preparation of papers for publication are given herewith.

MATERIAL: The subject matter should relate to some phase of Tennessee Ornithology. It should be original, factual, concise, scientifically accurate, and not submitted for publication elsewhere.

TITLE: The title should be concise, specific, and descriptive.

STYLE: Recent issues of *The Migrant* should be used as a guide in the preparation of manuscripts. Where more detail is needed reference should be made to the *Style Manual for Biological Journals* available from the American Institute of Biological Sciences, 3900 Wisconsin Avenue N.W., Washington, D. C. 20016.

COPY: Manuscripts should be typed double spaced on 8½ x 11" paper with adequate margins, for editorial notations, and should contain only entries intended for setting in type, except the serial page number. Tabular data should be entered on separate sheets with appropriate title and column headings. Photographs intended for reproduction should be sharp with good contrast on glossy white paper in black and white (not in color). Instructions to the editors should be given on a separate sheet. Weights and measurements should be in metric units. Dating should be in "continental" form (e.g., 7 March 1968).

NOMENCLATURE: Common names should be capitalized followed by binomial scientific name in italics only after the first occurrence in the text for both regular articles and "Round Table Notes", and should conform to the A.O.U. Check-list 5th edition, 1957. Trinomial should be used only after the specimen has been measured or compared with typical specimens.

BIBLIOGRAPHY: When there are more than five references in an article, they should be placed at the end of the article, otherwise they should be appropriately included in the text.

SUMMARY: Articles of five or more pages in length should be summarized briefly, drawing attention to the main conclusions resulting from the work performed.

IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

REPRINTS: Reprints are available on request. Reprint requests should accompany article at the time of submission. Billing to authors will be through the state T.O.S. Treasurer.

Books for review and articles for publication should be submitted to the editor. Seasonal reports and items should be forwarded to the appropriate departmental editor whose name and address will be found on the inside front cover.

CONTENTS

EVALUATING THE CHRISTMAS COUNT RECORDS OF BOBWHITE IN TENNESSEE <i>James T. Tanner and Ries Collier</i>	1
FOUR ADDITIONS TO THE TENNESSEE STATE LIST. T.O.S. Members.....	6
Ground Dove. <i>David E. Patterson</i>	6
Groove-billed Ani. <i>Kenneth Leggett</i>	7
Post-mortem of a Groove-billed Ani. <i>Albert F. Ganier</i>	9
Brown-headed Nuthatch. <i>Benton Basham</i>	11
Glaucous Gull. <i>Henry E. Parmer and Harry C. Monk</i>	12
ROUND TABLE NOTES	
Wood Duck Nest in Town. <i>Roger Ganier</i>	14
A Wood Duck Oddity. <i>S. W. Givens</i>	14
White-rumped Sandpiper in Sullivan County. <i>Mrs. George N. Dove</i>	14
Nashville's Third Saw-whet Owl Record. <i>Henry E. Parmer</i>	16
Pigeon Hawk Near Reelfoot. <i>Kenneth Leggett</i>	16
Vermilion Flycatcher Again Recorded at Reelfoot. <i>Kenneth Leggett</i>	17
THE SEASON. Edited by <i>Charles R. Smith</i>	18
Western Coastal Plain Region. <i>David E. Patterson</i>	18
Central Plateau and Basin Region. <i>Henry E. Parmer</i>	19
Eastern Ridge and Valley Region. <i>J. Wallace Coffey</i>	21
Eastern Mountain Region. <i>Danny Ellis</i>	24