

THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY



DECEMBER 1965

THE MIGRANT

A quarterly journal devoted to Tennessee birds
Published by The Tennessee Ornithological Society
Sent to all members in good standing
Second class postage paid at Elizabethton, Tenn.

LEE R. HERNDON, Editor,

Route 6, Elizabethton, Tenn.

All articles for publication should be sent to the Editor
See suggestions at the bottom of this page.

THE TENNESSEE ORNITHOLOGICAL SOCIETY

Founded at Nashville, Tenn., October 7, 1915

To encourage and record the study of Tennessee birds.

A non-profit educational, scientific and conservation organization.

OFFICERS FOR 1965-1966

President	Mrs. H. C. Garlinghouse 2012 Cedar Drive, Knoxville 18
Vice-President East Tenn.	James M. Campbell 15 Hedgewood Dr., Knoxville
Vice-President Middle Tenn.	Paul Hollister 1228 Virginia Ave., Cookeville
Vice-President West Tenn.	Mrs. Rose N. Wooldridge 2042 Cowden Ave., Memphis 4
Curator	Albert F. Ganier 2112 Woodlawn Dr., Nashville 12
Secretary	Mrs. Thos. C. Swindell 3921 Sullivan Road, Knoxville 37921
Treasurer	C. E. Wilmeth 606 So. Graham St., Memphis 38111

Annual dues, \$2.50; Sustaining, \$5.00; Life, \$100.00; Student \$1.00.

(Chapters may collect additional fees to cover local expenses)

Corresponding membership (out of State), Libraries and Subscribers \$2.00

No discount to agencies. Bank numbers may be had from the Curator.

Please notify the Treasurer or Secretary of a change in address.

PREPARATION OF COPY FOR PUBLICATION

Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

THE MIGRANT

Published by the Tennessee Ornithological Society, to Record and
Encourage the Study of Birds in Tennessee.
Issued in March, June, September and December.

VOL. 36

DECEMBER 1965

NO. 4

GREEN HERONS NEST AT BASIN SPRING

Larry E. Douglass, Michael L. Bierly, Katherine A. Goodpasture

Green Herons (*Butorides virescens*) were observed to nest in Virginia pines (*Pinus virginiana*) growing in the graveyard at Basin Spring from 1952 through 1955, during which time only casual observations were made. (1) Sometime between 1955 and 1960, the cemetery site was abandoned. A new location was not found until the spring of 1965, when three concurrent nests were located in a cedar grove about a quarter of a mile south of the previous nesting area. The following is a report of more careful observations on this small colony of Green Herons.

OBSERVATIONS

The nesting site was located in a small cedar thicket surrounded by deciduous woodland about a quarter of a mile from a creek which had been dammed to form a small lake. The three nests were in separate cedars, about 15 feet apart, at heights of approximately 12, 20, and 25 feet. The unlined nests were platforms of branches, many recognizable as cedar, which were estimated to be up to 1 cm. thick. A bagworm hung from one of the branches. The presence of much whitewash on the ground at the bases of the trees made the nest-trees easily recognizable. After the eggs hatched, bluish-green shell fragments as large as half an entire egg shell were found on the ground beneath each nest. Branches and trunks of the nest-trees eventually became covered with whitewash.

Two of the nests were found on 12 May, at which time each contained four recently hatched nestlings. One nest contained an addled or infertile egg. The nestlings in this nest weighed 36, 64, 84, and 93 grams, respectively. Subsequent comparison with the weights of developing herons (Table 1) indicated that the first egg had hatched approximately five days previously. The four nestlings in the second nest were even further developed and were able to climb well enough to escape capture. The nest was not examined for fear of possible harm to the nestlings which were scrambling among the near-by branches.

At this time, 12 May, the third nest contained five eggs, which remained unhatched until 15 May. Thus hatching occurred in one nest well over a week before it occurred in the third nest of the colony. This third nest had been under observation for some time and will be discussed in some detail.

This last mentioned nest was discovered 28 April when an adult Green Heron was flushed from it. When the nest was next visited four days later, 2 May, an adult was again flushed. The nest was examined for the first time and was found to contain five warm eggs. This status remained unchanged until 15 May, seventeen days after the nest was first discovered. During the ten hour interval between 6 A.M. and 4 P.M. on 15 May, three eggs hatched. Twenty-four hours later, one of the two remaining eggs had hatched. The following day, 17 May, the fifth egg was still intact. The

TABLE 1
Daily Weights (In Grams) of Five Nestling Green Herons

Age	Nestling number					
	1	2	3	4	5	
0-10 Hours		(16, 17, or 19) *			18	13
1 day		(22, 22, or 24) *			22	19
2 days	33	34	34	32	24	
3 days	42	42	42	50	37	
4 days	65	69	67	63	54	
5 days	80	80	82	76	61	
6 days	101	89	105	102	—	
7 days	113	108	118	102	—	
8 days	117	120	121	—	—	

* Individual weights were recorded within 10 hours of hatching, but the birds were not banded until the second day.

next day, 72 hours after the first three chicks hatched, a nestling was found to have hatched from the fifth egg. The down on this fifth bird was wet and matted at 2 P.M. on 18 May. The down on day old herons was dry and thin.

The nestlings were opening their eyes when first seen (within ten hours of hatching). They were able to raise their heads for only a short period, and their eyes tended to close when the head dropped. At times a thin opaque membrane, thought to be the nictitating membrane, was observed to rise from inside the lower eyelids. On the third day, the birds peeped and gaped in the nest but were unable to leave. On the fifth day, they extended their wings and gave a "haa" note resembling that of the parents, but still did not leave the nest. At seven days the quills of the birds began to un-sheath. The quills themselves were 15 to 17 mm. in length, as compared with a length of 3 mm. on a four day old nestling. As the young birds developed, the skin about the face and neck took on a gradually deepening greenish-yellow color.

The birds soon began to climb about the nest and near-by limbs, using their wings, necks, beaks, and feet in the manner that has often been described for members of this family. By fifteen days of age they could climb far and fast enough to easily escape capture, but they were not observed to attempt flight.

The nestlings were weighed daily for nine consecutive days. With one exception these observations were made between three and six P.M. The daily weights of the nestlings are recorded in Table 1. If a bird was observed to regurgitate a minnow or minnows, the weight of the minnow(s) was added to the body weight of the bird. On the third day, regurgitation of slightly digested minnows was noted. After that, the reflex was exhibited at times as the climber approached the nest. A single regurgitation consisted of one to three minnows weighing a total of about ten grams (one-third ounce). Weights were measured with a Hanson Dietetic Scale, Model 1440, calibrated to 1 gram.

Tables 1 and 2 show that the birds gained weight during the first twen-

TABLE 2
Daily Weight Gain (In Grams) of Five Nestling Green Herons

Day of life	Nestling number				
	1	2	3	4	5
first	(3 to 8)	(3 to 8)	(3 to 8)	4	6
second	(9 to 12)	(9 to 12)	(9 to 12)	10	5
third	9	8	8	18	13
fourth	23	27	25	13	17
fifth	15	11	15	13	7
sixth	21	9	23	26	—
seventh	12	19	13	0	—
eighth	4	12	3	—	—

ty-four hours of life. The weight gain of each nestling was however, less than the average daily weight gain for that nestling. The data also show that the fifth nestling weighed less at the time of hatching than the other nestlings, and gained weight at a slower rate than the rest of the birds. Another observation of interest is that the daily weight gain of each nestling was not constant, but instead showed marked variation.

During our visits the adult birds, after being flushed from the nests, made their presence known by rather discreet clucks and rasping calls from the foliage of near-by trees. Identification of alarmed adults with a particular nest was difficult to make, since the adult birds made no other effort to protect their nests. It was felt that the nestlings which were handled regularly were definitely less excitable than birds in neighboring nests at comparable ages. This minimal disturbance did not appear to markedly alter the development of the nestlings. There was no evidence of disease in these birds. Eight of the thirteen young herons were banded, and all thirteen were observed in the trees above and away from the nests two weeks after hatching.

DISCUSSION

This small Green Heron colony was visited twice daily for approximately one week before hatching and at least once daily for eight days after hatching. This schedule of brief one-half to one hour visits did not permit extensive observations of Green Heron behavior, but did allow the observers to determine that, thirteen days after a Green Heron was found to be incubating five eggs, the first three chicks hatched within ten hours of each other. The fourth egg hatched the following day, and the fifth egg hatched forty-eight hours later (three days after the first egg hatched). These notes do not allow a determination of the incubation period, but they do suggest that Green Herons do not lay an egg each day during the laying period, and that incubation begins before the clutch is complete.

These observations are in agreement with those reported by Meyerriecks in his detailed study of Green Heron breeding behavior.(2) Meyerriecks observed that Green Herons do not always lay their eggs at regular twenty-four hour intervals. In his series, females invariably laid the first two eggs forty-eight hours apart. Subsequently, either twenty-four or forty-

eight hours might elapse between the laying of eggs. The twenty-four hour interval which we observed between the hatching of the third and fourth eggs suggests that these two eggs were laid twenty-four hours apart. The forty-eight hour interval between the hatching of the fourth and fifth eggs suggests that they were laid forty-eight hours apart.

Meyerriecks observed that Green Herons begin solid incubation with the deposition of the third egg. Hatching of the first three eggs within a few hours of each other one day prior to the hatching of the fourth egg suggests that, in the nest which we observed, incubation began after the third egg was laid. This instinct to begin incubation prior to completion of the



Green Heron Nestlings

clutch, an instinct noted also in Whip-poor-wills (*Caprimulgus vociferus*) at Basin Spring(3), conceivably may have survival value for those species whose eggs are laid in exposed situations.

Observations of the daily weight gains of developing Green Herons have been reported previously. Wheelock (and Ferry) reported their observations on a single group of Green Heron nestlings which they examined daily.(4) Detailed data on individual nestlings are not included as they state, "... the young Green Herons gained one half an ounce (15 grams) in weight every day for six days, weighing three fourths of an ounce (22 grams) at the beginning and three and three fourths of an ounce (22 grams) on the seventh day." Wheelock and Ferry were careful to point out that they found the daily weight gain of the Green

Heron nestling to be constant, as contrasted with the highly variable daily weight gain which they observed in "Yellow Warblers", "Thrashers", "Wood Thrushes", and "Robins".

Wheelock's observations remain, to our knowledge, the only reported study of daily weight gain in Green Herons. The difference between the findings of Wheelock and our own remains unexplained. The Green Heron nestlings which we observed, gained weight at a remarkably varying rate, anywhere from zero to twenty-seven grams per day. The cause of this marked variation is impossible to determine with certainty in an uncontrolled study such as this.

Certainly the unseen regurgitation of recent feedings could account for at least some of the inconsistent weight gain. The possibility that our visits interrupted feeding on some days, and not on other days, must also be considered. We have no reason to believe that the food supply was inconstant, although hard rainstorms of one hour's duration on several of the afternoons may have affected feeding.

It is also possible that Green Heron nestlings normally show a marked

variation in daily weight gain which is independent of the environmental factors previously mentioned. Weight gain is a reflection of the rate at which food and water are utilized in the formation of tissues, muscle and bone primarily. It is not unreasonable to suspect that this rate may vary, even with abundant food and an undisturbed environment.

The Green Heron nestlings gained weight during the first twenty-four hours or so of life, and were therefore presumably fed during this time. However, the weight gain during the initial twenty-four hours was noticeably less than the average daily weight gain. These observations are in agreement with those of Meyerriecks, who found that feeding activity began about one day after hatching.(5)

The youngest nestling weighed less to begin with and gained weight at a slower rate than the older nestlings. This last hatched bird, three days younger than the first hatched birds, survived nest competition well, and it appeared strong and active in the trees as the young birds moved away from the nest.

REFERENCES

- (1) Goodpasture, Katherine A. The Season. *Migrant* 23: p52, 1952.
- (2) Meyerriecks, Andrew J. Comparative Breeding Behavior of Four Species of North American Herons. Pub. Nuttall Ornithological Club, no. 2, 1960. Cambridge, Mass.
- (3) Goodpasture, Katherine A., Douglass, Larry E. Whip-poor-will Nests at Basin Spring. *Migrant* 35: p100, 1964.
- (4) Wheelock, Irene G. Nesting Habits of the Green Heron. *The Auk* 23: p432, 1906.
- (5) Meyerriecks, Andrew J., in Handbook of North American Birds, edited by Ralph Palmer, volume I, 1962, page 425. Yale University Press.

AUTUMN 1965 T V TOWER CASUALTIES AT NASHVILLE

By Amelia R. Laskey

From 26 April through 27 May, Clara W. Fentress collected 22 casualties of 12 species at WSIX TV tower: Catbird (2); Swainson's Thrush; White-eyed Vireo; Red-eyed Vireo; Tennessee Warbler (2); Blackpoll Warbler (8); Palm Warbler; Ovenbird; Yellowthroat; Yellow-breasted Chat; Rose-breasted Grosbeak; Indigo Bunting (2).

On two Saturday mornings, Mike Bierly found Louisiana Waterthrushes at WSM TV tower, one each date, 27 March and 3 April, 1965.

In autumn 1965, the search for casualties was started 29 August and terminated 31 October at both towers with the help of Mike Bierly, C. W. Fentress, K. A. Goodpasture, H. E. Parmer, Mr. and Mrs. Robert Sharp and their children. As in 1964, WSM, the city tower led in numbers of casualties: 681 of 51 species while WSIX totalled 176 of 41 species. The grand total numbered 857 birds of 59 species.

During most of the autumn period, fair weather prevailed with no rain. However, starting 22 Sept. through 24 there was light precipitation, northerly winds and temperatures as low as 15 degrees below normal, with chilly weather continuing a few more days. The heaviest casualties of the season occurred during this period. On the night of 23-24 Sept. there were 340 for WSM and 78 for WSIX; on 25-26 Sept. 229 for WSM, 29 for WSIX.

Leading in numbers of casualties were: Ovenbird, 187; Red-eyed Vireo,

160; Tennessee Warbler, 69; Catbird, 32; but this year there were only 27 Magnolia Warblers.

The outstanding record this year is a Cape May Warbler in immature plumage on 23 Sept. Only two autumn sight records have been published for Nashville area (1929 Jour. Tenn. Acad. Sc. 4:73) In more than 40 years since, none has been published for this area. Identification of the 1965 specimen was verified by R. C. Laybourne of U. S. National Museum and is now in the collection of A. F. Ganier. A Rose-breasted Grosbeak, collected 27 Oct. is a new extreme fall departure date. Other significant dates are: Swainson's Thrush 24 Oct.; Black-throated Blue Warbler 24 Sept.; Baltimore Oriole (4) 24 Sept.; Grasshopper Sparrow 29 Oct.; Chipping Sparrow in first year plumage on 27 Sept.

The complete list and numbers of casualties follows with WSIX listed first. An * precedes a number when that species has been found only at WSM. A single unmarked figure indicates it was found only at WSIX.

Green Heron 1; Virginia Rail 1; Mourning Dove 1; Yellow-billed Cuckoo 5; Yel-sh. Flicker 2; Yel-bel. Sapsucker 1; Yellow-bellied Flycatcher 1-2; Wood Pewee 2-1; Long-billed Marsh Wren 1-2; Catbird 13-19; Wood Thrush 3-5; Swainson's Thrush 4-7; Gray-cheeked Thrush *2; Veery 1-3; Golden-crowned Kinglet *1; White-eyed Vireo *3; Solitary Vireo *1; Yellow-throated Vireo *1; Red-eyed Vireo 17-143; Philadelphia Vireo 1-4; Black-and-white Warbler 4-31; Worm-eating Warbler *1; Golden-winged Warbler *1; Blue-winged Warbler *1; Tennessee Warbler 14-55; Orange-crowned Warbler *2; Nashville Warbler 1-4; Parula Warbler *1; Yellow Warbler *5; Magnolia Warbler 5-22; Cape May Warbler 1; Black-throated Blue Warbler *1; Myrtle Warbler 4-2; Black-throated Green Warbler 3-5; Cerulean Warbler *1; Blackburnian Warbler 3-22; Chestnut-sided Warbler 3-27; Bay-breasted Warbler 9-24; Blackpoll Warbler *1; Ovenbird 34-153; Northern Waterthrush 6-10; Kentucky Warbler 3-10; Yellowthroat 4-10; Yellow-breasted Chat 3-31; Wilson's Warbler *1; Canada Warbler 3-22; Redstart 6-17; Bobolink 5-5; Baltimore Oriole 1-3; Scarlet Tanager 1-1; Rose-breasted Grosbeak *4; Indigo Bunting 2-2; Savannah Sparrow *2; Grasshopper Sparrow *1; Chipping Sparrow 1-1; White-throated Sparrow 1-2; Fox Sparrow 1-1; Swamp Sparrow 2-1; Song Sparrow 2.

1521 Graybar Lane, Nashville, Tennessee 37215.

CASUALTIES AT SKI RESORT, GATLINBURG

By Thomas Savage

The following account reports two mortalities of migrating birds during the fall of 1965 in the Gatlinburg area. The site of both mortalities was on the slopes of Mt. Harrison, southwest of Gatlinburg. The first mortality occurred during the night of 25-26 September. Don DeFoe, park naturalist, and I gathered 51 birds at the Gatlinburg Ski Resort on the morning of the 26th. Later in the day, I gathered 39 additional birds at a condominium nearby. In the list below, these two groups are combined and considered as one mortality. The overnight low of the 24th was 62°; that of the 25th was 48°. On the night of the kill, the low was 41°. The wave of birds appears to have come in somewhat behind the "edge" of the front.

A light, steady rain fell during 1 October, with no surface wind; broken clouds were moving from the southwest, and, later, from the west. The overnight low for that morning was 65°, with a high of 80° later that day.

The rain gradually diminished during the late afternoon and early evening. An employee of the Gatlinburg Ski Resort reports that shortly before 11 P.M. a fog began to move in over the Resort area. Shortly after the fog moved in, the birds arrived. During the time of the arrival of the birds all lights were on around the Resort building, in the parking area, and along the lift up the slopes of Mt. Harrison behind the Resort. In no time at all a mass of "thousands" of birds were flying everywhere, colliding with all manner of solid objects. The overnight low of 2 Oct. was 54° and the high was 81°; there was no surface wind; broken clouds were moving in from the southeast, changing later in the day to the southwest. The overnight low for 3 Oct. was 40° and a wind developed from the northeast later in the day. Thus, the wave of birds came in after the rain front and ahead of the cold front.

Early on the morning of 2 Oct. a maintenance crew gathered all the dead and injured birds on the blacktop surrounding the Resort (2700'). I arrived about 9 A.M. and received several cartons containing, as it turned out, 1376 birds. A quick survey of the surrounding grassy area revealed more birds but no time was spent in gathering more. The following morning I learned that many dead birds were seen on the blacktop around a condominium (3000') further up the slope of Mt. Harrison. (This area is also brightly lighted at night by a number of multidirectional "arc" lights.) That afternoon Jim Campbell and Dan Ellis gathered 449 birds from the immediate vicinity of the condominium. The make-up of these two collections and the September kill follows:

The first number stands for the September kill, the second for the Resort kill in October, and the third for the October kill at the condominium.

Yellow-billed Cuckoo—0.6,1; Black-billed Cuckoo—0.1,1; Acadian flycatcher—0.1,0; Catbird—0.28,3; Wood Thrush—0.5,2; Swainson's Thrush—39,697,75; Gray-cheeked Thrush—5,124,30; Veery—1.9,3; White-eyed Vireo—1.2,1; Yellow-throated Vireo—1.1,1; Red-eyed Vireo—3.13,4; Black-and-white Warbler—0.5,10; Swainson's W.—0.3,0; Worm-eating W.—2.5,0; Tennessee W.—4,31,21; Nashville W.—0.1,0; Parula W.—0.0,1; Magnolia W.—5,35,34; Cape May W.—0.3,2; Black-thr. Blue W.—0.3,3; Black-thr. Green W.—0.1,2; Blackburnian W.—1,33,19; Yellow-thr. W.—0.1,0; Chestnut-sided W.—4,30,42; Bay-breasted W.—1,20,19; Prairie W.—0.0,3; Palm W.—1,16,7; Ovenbird—12,115,61; N. Waterthrush—2.5,1; Kentucky W.—2.2,1; Yellowthroat—0,27,26; Yellow-br. Chat—0.1,0; Hooded W.—0,22,28; Wilson's W.—0.1,0; Redstart—1,19,16; Bobolink—3,3,0; Scarlet Tanager—1,86,20; Summer Tanager—0.3,2; Rose-br. Grosbeak—0.3,1; Indigo Bunting—1,11,9; Savannah Sparrow—0.2,0; Grasshopper Sparrow—0.2,0. Total Species: 20,40,32. Total individuals 90,1376,449 (=1915).

The following species constitute records, as indicated: First Fall Record: Swainson's Warbler. Late Fall Record: Worm-eating Warbler, Parula Warbler, Yellow-thr. Warbler, Kentucky Warbler, Veery, Bobolink.

Equals Late Fall Record: Acadian Flycatcher, Wilson's Warbler.

An analysis of these mortalities is being made and the results will appear in a subsequent issue of the Migrant. The aid of Mr. Arthur Stupka and Drs. James Tanner and Joseph Howell is much appreciated.

Gatlinburg, Tenn.

THE 1965 CHRISTMAS SEASON BIRD COUNTS

By TOS Members and Guests

The thirty-sixth annual Christmas Season Bird Count recorded in the following pages lists 130 species and subspecies. This exceeds all previous counts by eight species. One hundred twenty-two species have been recorded on three occasions. Sixteen counts are tabulated and three high altitude counts are given in paragraph form under the appropriate heading. The White-winged Crossbill occurs in only one of the tabulated lists and not in any of the other lists. Egyptian Goose, Semipalmated Sandpiper, Swainson's Thrush and Common Redpoll appear on the list for the first time. The origin of the Egyptian Goose is unknown but one has been in the same area most of the time for more than a year and in the meantime has been joined by a second of the species. The presence of the Semipalmated Sandpiper and Swainson's Thrush may be attributed to the mildness of the season in this latitude through the count period. The occurrence of the Common Redpoll, together with large numbers of many northern species indicate a shortage of food in northern latitudes or severity of the winter season.

INFORMATION ON THE COUNTS

Information on the counts, including comments on unusual species as well as the headings for locations at which counts were made are given progressively from west to east. The species and number of individuals are listed under the appropriate headings.

MEMPHIS.—Roughly 1953 areas; wooded bottomlands 30%, deciduous woods, city parks and cemeteries 28%, pastures, bare fields 15%, suburban roadsides 25%, river edge 2%. 26 Dec.; 6:45 a.m. to 5:30 p.m.; temp. 26° to 46°; wind NE, 1-6 mph; 24 observers in 7 parties. Total party-hours, 73 (54 on foot, 19 by car); total party-miles, 162 (52 on foot, 110 by car). Mrs. Ed Carpenter, Mr. and Mrs. Ben B. Coffey, Jr. (compilers), Dr. Julian Darlington, Mary Davant, Mr. and Mrs. Henry Dinkelspiel, Jack and Bruce Embury, Earl Fuller, Ed King, Mr. and Mrs. Leslie R. Kostka, Mr. and Mrs. Robert McGowan, S. Jack and J. P. Rini, Mrs. Henry A. Schiller, Alice Smith, Dr. and Mrs. Arlo I. Smith, Lynn Smith, R. Demett (Jr.) and Steve Smith. Also, Mrs. M. L. Torti, Mrs. C. E. Moore, Mrs. Paul C. Owen, F. F. Stoner.

REELFOOT LAKE.—All points within a circle of 15 miles diameter, centering in Reelfoot Lake on west side of Starve Pond, extending northward to north end of Number nine Lake in Kentucky, eastward to Protemus and Hornbeak, Tennessee, southward to north end of Lake Isom Refuge and westward to the Mississippi River; lake 20%, fields and pastures 40%; deciduous woods 30%, river 5%, towns 5%. 29 Dec., 6:30 a.m. to 5:00 p.m. clear to partly cloudy; temp. 27° to 61°; wind W-NW, 5 to 15 m.p.h.; 16 observers in 7 parties. Total party hours 49 (25 on foot, 14 by car, 10 by boat); total party miles, 264 (13 on foot, 230 by car, 21 by boat).

A Golden Eagle had been seen in the area for several weeks prior to the count (JDeL, EC). The completely dark plumage and feathered legs were noted. The Rough-legged Hawk was observed by the Hunter Hancock party. No details were given. Semipalmated Sandpipers were observed for 25 minutes as they moved around rooks in recently cultivated fields. They were observed as close as 25 to 30 yards through 7X binoculars. "Their legs were not yellow, but greenish black, they had gray backs, light breast with only faint streaks and had the thicker bill or stout bill

characteristic of the Semipalmated Sandpiper." The Olive-sided Flycatcher was under observation for approximately ten minutes by three individuals (BS, WLH, JRC) through 7X binoculars at a distance of about 100 feet. It was feeding from a branch of a tree on the bank of a farm drainage ditch on the lee side of an extensive cypress area. It flew in the characteristic flycatcher manner. Its bulky head, white breast and the white patches on its sides adjacent to the wings could be clearly seen through binoculars. The Swainson's Thrush had buffy cheeks and the eye-rings were clearly observed (BS, WLH, JRC) at distances as close as 30 feet through binoculars in good light for about 20 minutes. It was feeding from a low tree limb near some thick shrubs that bordered a cypress grove and a cut over soybean field. The rufous tail coloration of the Hermit Thrush could not be seen and the breast streaks or spots were confined more to the throat area than scattered over the breast as in the Hermit Thrush. Robert C. Clemmons, John R. Conder, Eugene Cypert (compilers), Mary Louise Cypert, John L. DeLime, Harvell Denton, Willard Gray, Wayne L. Hall, Christine Hancock, Hunter M. Hancock, Guy Hogg, Edwin Larson, James M. Moynahan, Keith Pardue, Steve Pardue, Betty Sumara.

DYERSBURG.—The area covered was in and southwest of town including the airport. Most of the area was farm and pastureland, woodland, cedar groves and some ponds. 30 Dec. 7:15 a.m. to 10:00 a.m. Temp. 56°, cloudy to rain by 10:00 a.m. Two observers in one party, all on foot. Virginia Lamb (compiler) and Mike Underhill.

SAVANNAH.—All points within 15-mile diameter circle, center six miles south-east of county courthouse, including Pickwick Dam area. 21 Dec.; clear; wind, S 0-5 m.p.h., temperature 30° to 55°; eight observers in two parties. Michael Barber, Charline Cobb, George Mayfield, David Patterson (compiler), Gloria, Paul, and Roger Patterson, Andrew Rimmer.

COLUMBIA.—(Same area as in previous years). 30 Dec., 7:00 a.m. to 7:00 p.m.; weather partly cloudy; windy and dry; temp. 40°-68°, winds south 10-18 m.p.h.; 8 observers in 4 parties; 25 party hours (15 on foot, 6½ by car, 3 by canoe, ½ by plane); 224 party miles (15 on foot, 140 by car, 9 by canoe, 60 by plane); 75 species; 161,485 individuals. Found during count period but not on count day 2 Common Goldeneye and 1 Black-crowned Night Heron. William Fuqua, Daniel Gray Jr., Daniel Gray III, George Mayfield (Compiler), Cleo Mayfield, Delton Porter, Evelyn Ridley, Radford Smith.

NASHVILLE.—Same as in previous years. 26 Dec., 7:00 a.m. to 4:30 p.m.; weather clear, 29° to 40°. Wind northerly 2-12 m.p.h. 26 observers in 9 parties, plus 20 observing feeders. 88½ party hours, 39½ on foot, 25 by car. 236 party-miles, 28 on foot, 208 by car.

Seen in count period, but not on count day—One Harris' Sparrow. Mr. and Mrs. B. H. Abernathy, Dr. and Mrs. O. C. Ault, Clyde and Jean Anderson, Mr. and Mrs. W. F. Bell Sr., Mr. and Mrs. W. F. Bell Jr., Mike Bierly, Mrs. Mark Bradford Jr., Mrs. B. E. Britt, Mrs. Don Cassel, Ruth Castles, Mrs. Jack L. Clark, Mrs. Charles Cornelius Sr., Annella Creech, Mrs. Watkins Crockett, Milbry Dugger, John O. Ellis, Mrs. K. V. Everly, Charles Farrell, Mary Frazer, Dr. and Mrs. Hugh L. Fry, Albert F. Ganier, Katherine A. Goodpasture, Mr. and Mrs. Ben Groce, Stephen Greenfield, Virginia Hagen, John Herbert, Louise Jackson, Mrs. Carol Knauth, Mrs. R. E. Lynn, Henry E. Parmer (compiler), Jimmy Parrish, Mrs. W. A. Puryear, Mrs. Greer Rick-

etson, Mr. and Mrs. Max Schuerman, Mr. and Mrs. Kirby Stringer, Lawrence O. Trabue, James T. Welch.

OLD HICKORY LAKE.—Area same as 1961 count. 2 Jan., 6:30 a.m. to 3:00 p.m. Medium to light rain. Temp. 66° to 59°, wind NW 6-15 m.p.h. Two observers in one party; 8½ party hours (3 on foot, 5½ by car). 40 party miles (2 by foot, 38 by car). Total, 42 species, about 1735 individuals. Henry E. Parmer (compiler), Lawrence O. Trabue.

LEBANON.—The same area was covered as in previous years. 30 Dec., temp. around 60° and very windy. Myrtle B. Hobbs (compiler).

COOKEVILLE.—Area same as in previous years; 27 and 28 Dec., 6:00 a.m. to 4:30 p.m.; weather—fair; temp. 28°-54°; approximate wind velocity 2-7 miles, S. W.; observers—17; parties—10; party hours 51½; party miles (on foot 13½ miles), (by car 116½ miles); number of species—53; number of individuals—3500. Beulah Clark, Edwina Cummins, John Cummins, Caprice Haile, Roy Hines, Paul Hollister, Emma Hood, Amy Johnson (compiler), Elizabeth Killefer, Gladys Knight, Marjorie McGee, Sidney McGee, Annice Moore, J. T. Moore, Miser Richmond, Chrissa Wendt and Marie White.

CHATTANOOGA.—All points within a 15-mile diameter circle, center National Cemetery; fields and pastures 35%, woodlands 20%, ponds and lakes 15%, creeks and rivers 15%, roadside 10%, and residential 5%. 2 January; 5:00 a.m. to 5:00 p.m.; cloudy with light drizzle during a.m., lowering clouds with heavier rain during p.m., only short periods of no precipitation. Temperature 54° to 64°; wind S-SW, 5 to 9.2 m.p.h. Twenty-one observers in twelve parties. Total party-hours, 74 (38 on foot, 32 by car, 4 by boat); total party miles, 348 (54 on foot, 274 by car, 20 by boat). Seen in area during count period but not on count day: Bald Eagle. Ralph and Carol Bullard, Dr. W. K. Butts, Mrs. L. F. Cross, Mrs. Maxine Crownover, Dr. C. F. Dean, Jon DeVore (compiler), Miss Roberta Doub, Mr. Kenneth H. Dubke, Mr. Roy Evenson, Dr. and Mrs. John R. Freeman, James Garrett, Mrs. Mary Lou Meadors, Mrs. H. Nelson, Mr. T. L. Rogers, Mrs. Vita Sliger, Mrs. Mary Tunsberg, Mr. Frank Ward, Mr. and Mrs. E. M. West.

KNOXVILLE.—(Same area as in previous years), fields and pastures with hedgerows 36%, deciduous woods 36%, residential areas 13%, lake-shore 8%, pine woods 7%). 26 Dec.; 7 a.m. to 5:40 p.m. Overcast a.m. to clear p.m.; temp. 27° to 36°; wind N, 5-15 m.p.h.; ground bare, water levels low. 21 observers in 8 parties. Total party-hours, 63; total party-miles, 273 (38 on foot, 235 by car). 70 species, 17,615 individuals. The Greater Scaup was seen in good light with several Lesser Scaup. Michael Bentley, Mr. and Mrs. James M. Campbell, Daniel Ellis, John Elson, Elizabeth French, Harold Garlinghouse, Miles Haberley, Susan Hoyle, Lura James, Mr. and Mrs. Robert A. Monroe, Mrs. E. E. Overton, Paul S. Pardue, Ernest Sassi, Mr. and Mrs. Louis Smith, Mrs. T. C. Swindell, James T. Tanner (compiler), Mr. and Mrs. W. B. Williams.

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N.C.—(Localities are within a 15-mile diameter circle centered on Bull Head of Mt. LeConte) same general areas as in 1937-1956 and 1962 to date. 2 January, 1966, 7:00 a.m. to 5:30 p.m. Partly cloudy-overcast, rain; temperature range 44° F.-70° F.; wind variable, 5-40 m.p.h., with gusts to 50 m.p.h.; dense fog at high elevations. Thirty-three observers in 15 parties. Total party-hours, 109 (67 on foot, 42 by car); total party-miles, 314 (82 on foot, 232 by car).

The Peregrine Falcon was observed by James M. Campbell at Indian

Gap. Seen in silhouette in flight; large size, long, pointed wings and narrow tail were noted. The House Wren was observed at Elkmont Campground from 30 to 40 feet by Mr. and Mrs. George Wood. It was larger than Winter Wren and had no white line over eye. The Catbird was seen at Elkmont by Wood. It was probably the same bird observed by De Foe on 27 December. One Pine Warbler was observed by Tanner and Howell at Pigeon Forge and three birds at a feeder at Buckhorn (Stupka). Another seen on Alum Cave Bluff Trail (Wood). Four Rusty Blackbirds (JH, JT) at Pigeon Forge and four others in Wear Valley (Monroe). The Rose-breasted Grosbeak was seen at Elkmont by Mrs. Louise Nunnally from about 35 feet. Male; black and white markings on wings, black head and a rosy wash on breast indicating characteristic V-shaped pattern. A female of this species was mist-netted, banded and photographed by DeFoe at Elkmont (within one mile of the count observation) on 9 December. The Common Redpolls were observed by Mary Enloe in Sugarland area approximately two miles south of park headquarters. Five birds were seen at one time and three birds together a short while later. The crimson patch on forehead was noted in good light, as well as black chins and streaked flanks. All birds lacked rosy wash on breast. In spite of the fact this species has not previously been reported in Great Smoky Mountains National Park, this is the second record this winter. On 14 December (De Foe and five other people) observed a single individual, from about 15-20 feet, at Sugarlands Visitor Center (approximately two miles north of count observation). This bird was feeding with a flock of about 200-250 Pine Siskins. As many as 40 White-winged Crossbills were seen on a single day in highest elevations of the park during count period by Campbell and De Foe but could not be located on count day.

Ross Bender, Steve Bender, Lowell Branham, Mr. and Mrs. James Campbell, Donald DeFoe (compiler), Jessie Demoster, Danny Ellis, John Elson, Mary Enloe, Dr. Joseph Howell, Susan Hovle, Lura James, Beth Lacy, Henry Lix, Mrs. George McGown, Dr. Stanleigh Meaker, Mr. and Mrs. Robert Monroe, Pat Nelson, Louise Nunnally, Holly Overton, Paul Pardue, Ed Smith, Mr. and Mrs. Louis Smith, Mr. and Mrs. Arthur Stupka, Dr. James Tanner, Mr. and Mrs. W. B. Williams, Mr. and Mrs. George Wood. (Tennessee Ornithological Society, National Park Service, and guests.)

COSBY.—Eastern end of the Great Smokies. From recreation area up Rock Creek trail to Appalachian Trail along same to Low Gap and back to the recreation area. 1 Jan.; 7:30 a.m. to 5:00 p.m.; clear to heavy overcast; 60°; wind 10 to 15 m.p.h. out of the S.W. One party, four observers; 9½ party-hours; 15 party-miles, on foot. 21 species; 694 individuals. Ruffed Grouse, 2; Pileated Woodpecker, 3; Hairy Woodpecker, 2; Downy Woodpecker, 1; Common Crow, 3; Black-capped and Carolina Chickadee, 19; Tufted Titmouse, 3; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 24; Brown Creeper, 3; Winter Wren, 1; Robin, 100; Golden-crowned Kinglet, 4; Ruby-crowned Kinglet, 2; Cardinal, 1; Evening Grosbeak, 6; Purple Finch, 4; Pine Siskin, 330; American Goldfinch, 65; Red Crossbill, 20; Slate-colored Junco, 7. U. M. Clemmer, Tom Leming, Richard Nevius (compiler), Dr. R. B. Spees.

GREENEVILLE.—Area—Same as in previous years. 26 Dec., 7:30 a.m. to 6:00 p.m.; cloudy to clear; temp. 30° to 50°; 15 observers in 4 parties. Total party-hours 20 (15 on foot, 5 by car); total party-miles, 86.5 (8.5 on

THE 1965 CHRISTMAS SEASON BIRD COUNTS

	Memphis	Redfoot	Dyersburg	Savannah	Columbia	Marshville	Old Hickory	Lebanon	CookerVile	Chattanooga	Knoxville	OSMNP	Greenville	Missport	Bristol	Dixiebatton
Common Loon	--	5	--	8	--	--	--	--	--	2	3	--	1	3	1	--
Horned Grebe	--	--	--	4	--	--	30	--	--	--	--	--	1	1	2	--
Pied-billed Grebe	1	7	--	30	8	2	8	--	--	--	--	--	1	4	3	--
Double-cr. Cormorant	--	27	--	3	--	--	--	--	--	--	--	--	--	--	1	--
Great White Heron	--	14	--	--	11	5	8	15	--	1	15	--	1	3	6	--
Bl.-Cr. Night Heron	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Canada Goose	--	16,800	--	--	--	--	6	--	--	4	--	--	--	--	--	--
Snow Goose	--	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--
Blue Goose	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Egyptian Goose	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--
Mallard	11	140,000	--	3	80	23	35	5,550	--	37	11	--	17	30	13	47
Black Duck	2	2,200	--	--	4	39	33	3,225	--	108	--	1	--	8	10	1
Gadwall	--	4,800	--	--	2	--	--	60	--	2	35	--	--	--	--	--
Pintail	--	200	--	--	--	--	--	220	--	--	--	--	--	--	--	--
Green-wing. Teal	1	1,100	--	--	9	--	3	120	3	3	--	--	--	--	--	--
Am. Widgeon	--	6,300	--	5	1	--	--	600	--	6	--	--	--	12	--	--
Shoveler	--	18	--	--	--	--	--	6	--	--	--	--	--	--	--	--
Wood Duck	--	2,300	--	--	11	--	--	21	--	17	--	--	--	7	--	--
Redhead	--	120	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Ring-neck. Duck	1	10,500	2	2	75	21	--	1,200	--	--	1	2	--	2	--	1
Canvasback	--	250	--	--	3	24	21	26	--	--	--	--	--	76	1	--
Greater Scaup	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Lesser Scaup	75	650	--	23	13	158	--	500	4	57	11	1	--	30	1	1
Common Goldeneye	--	115	--	2	--	10	19	--	--	8	--	--	--	--	7	1
Bufflehead	30	28	--	2	1	--	--	--	--	--	2	--	2	22	--	1
Oldsquaw	--	--	--	3	--	--	--	--	--	--	--	--	--	--	1	1
Ruddy Duck	--	300	--	--	6	1	--	--	--	--	2	--	--	--	1	1
Hooded Merganser	--	50	--	5	7	--	--	--	--	11	5	--	--	--	12	1
Common Merganser	--	25	--	--	--	--	--	--	--	--	--	--	--	--	1	1
Turkey Vulture	--	1	1	14	2	--	--	--	1	--	--	5	--	2	1	1

Black Vulture	--	18	--	--	75	3	14	--	--	--	--	--	--	96	--
Sharp-sh. Hawk	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--
Cooper's Hawk	--	--	--	--	--	1	--	2	--	1	--	--	1	--	--
Red-tailed Hawk	19	24	3	2	9	16	2	2	2	7	4	4	1	1	--
Red-shouldered Hawk	--	3	--	1	1	4	1	--	--	2	1	--	--	--	--
Rough-legged Hawk	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Golden Eagle	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Bald Eagle	--	35	--	--	--	--	--	--	--	--	--	--	--	1	--
Merch Hawk	2	7	1	--	--	--	--	--	1	--	1	1	--	--	--
Peregrine Falcon	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Sparrow Hawk	11	18	4	2	5	29	5	6	5	3	4	6	5	5	11
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	6	--	--	2
Bobwhite	113	--	16	--	5	40	--	35	19	18	--	28	34	22	7
Ring-necked Pheasant	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Am. Coot	1	36,000	--	500	400	--	117	265	--	1	--	--	--	--	--
Wilddeer	19	48	2	29	6	147	8	--	5	39	16	142	9	56	9
Am. Woodcock	--	4	--	--	1	--	--	--	--	--	--	--	4	--	28
Common Snipe	36	72	--	2	8	2	4	--	5	13	5	--	--	1	3
Semipalmated Sandpiper	--	10	--	--	--	--	--	--	--	--	--	--	6	--	7
Herring Gull	40	55	--	--	3	18	--	--	14	1	--	--	6	11	--
Ring-bld. Gull	100	105	--	20	--	21	--	--	34	43	--	--	--	2	25
Bonaparte's Gull	--	--	--	11	--	280	--	--	--	--	--	--	--	--	14
Mourning Dove	108	26	12	131	140	134	113	130	180	336	162	210	113	206	14
Screech Owl	1	--	--	--	--	--	--	--	--	3	--	3	--	1	--
Great Horned Owl	2	2	1	--	3	1	--	2	--	1	--	2	--	--	--
Screech Owl	2	1	--	--	1	--	--	--	--	1	1	--	--	--	--
Long-eared Owl	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--
Belted Kingfisher	1	5	--	4	8	13	9	1	--	7	1	13	6	5	13
Yellow-sh. Plioker	175	45	7	9	29	51	4	12	27	51	24	16	6	24	14
Pileated Woodpecker	7	13	--	8	4	21	--	1	12	13	15	20	12	14	5
Red-bel. Woodpecker	82	53	4	14	21	74	2	7	18	33	19	4	13	14	6
Red-headed Woodpecker	10	1	2	--	--	--	--	--	26	11	14	--	--	7	3
Yellow-bel. Sapsucker	51	6	1	5	21	18	--	2	4	15	11	23	6	3	5
Hairy Woodpecker	30	4	--	--	4	14	--	2	13	4	4	17	5	3	1
Downy Woodpecker	68	35	2	13	25	88	1	11	25	24	44	26	32	33	28

	Memphi	Reelfoot	Dyersburg	Savannah	Columbia	Nashville	Old Hickory	Lebanon	Cookeville	Chattanooga	Knoxville	CSMMP	Greeneville	Xingport	Bristol	Elizabethton
Eastern Phoebe	1	4	--	2	1	1	--	1	12	4	2	11	--	3	--	--
Olive-ed. Flycatcher	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Horned Lark	21	9	15	--	4	125	9	--	2	5	--	1	--	23	5	--
Blue Jay	274	34	17	90	19	99	24	25	180	138	297	65	55	164	99	63
Com. Raven	--	--	--	--	--	--	--	--	--	--	--	9	--	--	--	--
Com. Crow	44	2,000	9	104	52	35,000	64	18	161	132	529	421	65	763	399	235
Pish Crow	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Black-cap Chickadee	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carolina Chickadee	184	61	2	15	58	276	11	37	45	81	195	180	44	86	118	62
Tufted Titmouse	44	120	4	27	28	179	5	33	70	53	77	73	26	100	112	46
White-br. Nuthatch	3	7	--	13	1	2	--	--	14	12	6	16	1	5	10	4
Red-br. Nuthatch	2	--	--	--	--	--	--	--	--	4	24	65	--	2	--	6
Brown Creeper	10	--	--	2	2	4	--	1	5	4	19	22	5	5	5	--
Rouse Wren	--	--	--	--	--	--	--	1	3	--	--	1	5	--	--	--
Winter Wren	9	8	--	6	1	3	--	9	--	1	--	5	--	3	3	3
Seziok's Wren	--	--	--	--	1	4	--	4	8	2	--	1	4	2	--	--
Carolina Wren	102	21	8	9	10	47	--	1	15	41	71	55	16	61	18	33
Short-billed Marsh Wren	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mockingbird	213	23	18	27	24	162	23	14	31	138	217	64	25	69	65	50
Catbird	--	--	--	--	--	--	--	--	--	--	--	1	2	--	--	--
Brown Thrasher	21	--	1	3	--	--	--	1	4	15	3	2	2	3	--	1
Robin	2,181	16	20	84	50,000	91	--	1	79	556	92	1,149	1	202	6	292
Worm-eating Thrush	11	1	--	4	1	4	--	--	3	1	--	5	--	--	--	--
Swainson's Thrush	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern Bluebird	5	9	2	20	18	46	--	--	47	86	24	77	1	35	7	14
Golden-cr. Kinglet	34	18	--	2	--	0	--	--	--	6	57	84	6	47	4	9
Ruby-cr. Kinglet	52	19	--	1	5	--	1	--	--	12	10	15	1	2	--	--
Water Pipit	2	--	--	--	--	14	--	--	--	--	--	--	--	--	--	--
Cedar Waxwing	282	--	--	72	9	40	--	--	80	302	70	315	--	500	16	12
Logger-hd. Shrike	11	23	1	e	5	20	6	2	5	7	13	16	5	6	6	3
Starling	380	1,025	25	1,200	15,000	4,122	597	1,143	375	2,500	11,550	875	713	1,930	1,256	50,875
Myrtle Warbler	144	--	--	16	5	12	--	--	3	49	51	62	10	28	5	14

Pine Warbler	--	--	--	--	--	--	--	--	2	--	5	2	--	--	1	
House Sparrow	420	760	100	26	132	111	--	60	212	372	360	148	62	200	368	255
Es. Meadowlark	315	373	27	26	124	432	15	33	150	298	89	435	133	95	252	15
W. Meadowlark	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwinged Blackbird	575	4 mill.	--	5,000	2,100	2	--	--	11	340	110	7	8	--	4	6
Rusty Blackbird	27	26	--	450	2,240	1	--	5	4	700	52	8	--	--	--	--
Brewer's Blackbird	--	75	--	--	2	--	--	--	--	--	--	--	--	--	--	1
Common Grackle	1,950	800,000	40	10,000	90,000	5,160	--	--	1,183	33	1,065	2	225	33	1	135
Brown-hd. Cowbird	4	200,000	--	--	200	--	--	--	4	1	53	--	--	--	25	2
Cardinal	704	94	24	141	79	376	75	63	73	240	426	159	90	165	93	64
Rose-br. Grosbeak	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Evening Grosbeak	--	--	--	--	--	--	--	--	--	--	--	540	--	--	--	--
Purple Finch	67	4	--	2	3	70	--	--	36	112	117	147	83	92	47	34
Pine Siskin	3	--	--	--	--	--	--	--	59	78	4,813	23	100	--	--	246
Am. Goldfinch	421	16	2	43	43	430	--	--	62	227	221	263	53	20	33	116
Common Redpoll	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	18
Red Crossbill	--	--	--	--	--	--	--	--	--	--	--	202	--	--	--	7
Rufous-ed. Towhee	56	--	3	6	16	86	--	4	57	82	66	48	17	36	8	3
Savannah Sparrow	36	2	--	--	1	--	--	--	--	69	1	5	--	--	--	1
Le Conte's Sparrow	5(50)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yvesper Sparrow	--	--	--	--	--	--	--	--	--	10	--	--	--	--	--	--
Slate-clo. Junco	1,067	90	40	168	42	664	31	59	120	338	125	643	8	110	241	142
Tree Sparrow	--	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chipping Sparrow	--	--	--	--	--	--	--	--	2	3	--	1	--	--	--	--
Field Sparrow	175	29	1F	31	28	133	40	1	25	310	153	104	55	20	75	21
Harris' Sparrow	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--
White-cr. Sparrow	19	25	14	--	9	22	1	9	--	17	3	52	2	5	8	8
White-thr. Sparrow	2,284	118	125	41	95	161	12	5	72	297	382	300	46	141	64	41
Fox Sparrow	173	4	1	3	0	19	--	--	4	6	7	--	1	--	1	2
Lincoln's Sparrow	1(MLM)	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Swamp Sparrow	274	52	--	11	36	31	1	--	--	125	8	9	5	--	51	1
Song Sparrow	376	11	5	85	72	115	17	1	28	131	216	174	45	55	68	53
Total Species	75	94	50	63	75	65	42	50	53	79	68	70	60	65	63	56
Total Individuals	14,036	5,227,500	52	18,563	157,481	49,046	1,730	13,822	3,405	8,436	17,498	11,748	2,270	5,778	3,969	53,870

foot, 78 by car). Wind 5 to 10 m.p.h. S. Mrs. J. E. Collins, Mrs. Nat Coleman, Mrs. Chester Darnell, Fannie Gass, S. R. Maguire, Roger Miller, Mrs. Richard Nevius, Richard Nevius (compiler), Doris Parker, Dale Park, Henry Rucker, Dr. and Mrs. Royal Spees, Karl Spees, Earle Wright. Total species 60. Total individuals 2646.

BIG BALD MOUNTAIN.—Center head of East Fork Higgins Creek—top of Big Bald Mt. in Unicoi and Yancey counties (3500-5516 ft.); deciduous woodland 70%, grassy, treeless area on top of Mountain 30%.

1 Jan., 7:00 a.m. to 4:30 p.m. Cloudy to partly cloudy to very cloudy; temp. 44°-54°; wind SW-S, 5-15 m.p.h.; ground dry. One observer. Total hours, 9½ (all on foot). Total miles, 8 (all on foot).

Pileated Woodpecker, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Common Raven, 1; Common Crow, 2; Carolina Chickadee, 3; Tufted Titmouse, 2; White-breasted Nuthatch, 7; Brown Creeper, 1; Winter Wren, 2; Robin, 1; Eastern Bluebird, 3; Cardinal, 1; Evening Grosbeak, 43; Purple Finch, 1; Pine Siskin, 9; Carolina Junco, 5; White-throated Sparrow, 1; Song Sparrow, 1. Total, 18 species, 88 individuals. About 40 Evening Grosbeaks in beech and birch about 5,000 ft. 2 Bluebirds at 5,300 ft. No other birds above 5,000 ft. Fred W. Behrend.

KINGSPORT.—Usual Christmas Count center at Pactolus. Bayes Mt., Patrick Henry and parts of Boone Lake, Holston River, North & South Forks, extending into Hawkins County and Scott County, Va., Reedy Creek and Horse Creek and surrounding territory, Kingsport, including two golf courses. 31 Dec., 7:15 a.m. to 5:30 p.m. Temperature 30° to 60°, clear to cloudy haze most of the day, ice on the puddles, practically no wind.

Besides the 65 species listed on the Christmas count, the following species were reported in the area during count period, but not on count day: Canada Goose, Gadwall, Pintail, Common Goldeneye, Ruddy Duck, Red-breasted Merganser, American Coot, and Baltimore Oriole.

Roy Allen, Charles Baker, Joe and Thomas (compiler), Tom and Dan Finucane, Ed Gift, Wm. Hincke, Mr. and Mrs. McHorris, Mr. and Mrs. Merle Pike, George Rodgers, Arthur Smith, Mr. and Mrs. Pete Smith, Ann Switzer, Howard Young.

BRISTOL, TENN.-VA.—(All points within a 15-mile diameter circle, center same as in previous years). 26 & 27 Dec., 7 a.m. to 6 p.m. Fair; temp. 22° to 40°; wind WNW, 17 m.p.h.; no snow on ground, waters unfrozen. Twenty observers in 10 parties. Total party-hours, 55 (24 on foot, 31 by car); total party-miles, 250 (10 on foot, 240 by car).

Total, 63 species; 3969 individuals.—Mrs. Carleton L. Abbott, Mrs. Guy B. Arnold, Fletcher Bingham (co-compiler), Mrs. F. R. Bingham, F. R. Bingham, Wallace Coffey (co-compiler), Mrs. Ernest H. Dickey, Ernest H. Dickey, Mrs. H. C. Epperson, H. C. Epperson, Mrs. Earl Francisco, John D. McPeak, Mrs. Herbert S. Miller, Herbert S. Miller, Mrs. H. W. Nunley, H. W. Nunley, Robert Quillen, Charles Smith, Enno vanGelder, Henry Woodward.

ELIZABETHTON.—The same area was covered as in previous years. 2 Jan., 6:33 a.m. to 6:30 p.m., partly cloudy to cloudy to rain by mid-afternoon, temp. 60° to 70°. Twelve observers in 6 parties. Deborah and Roberta Bashor, Mary Fern Behrend, Bill Bridgeforth, J. C. Browning, Ed Davidson, Mrs. Harold Dillenbeck, Mrs. George Dove, Lee R. and Lois Herndon, Roby D. May, Jr., and Charles R. Smith (compiler).

ROAN MOUNTAIN.—Center Carvers Gap at 5500 ft.—Roan High Bluff at 6250 ft.—Balsam Seed Orchard—Balsam Road—Carvers Gap—Round

Bald and return to Carvers Gap; coniferous forest 75%, grass bald 15%, briar—rhododendron (*catawbiense*)—alder 10%.

29 Dec., 1965; 7:15 a.m. to 5 p.m.; sunny—partly cloudy, light traces of snow; temp. 32°-42°; wind NW-N 5-15 m.p.h.; one observer. Total party-hours, 9¾, all on foot; total party miles, 9, all on foot.

Ruffed Grouse, 1; Blue Jay, 2; Common Crow, 7; Red-breasted Nuthatch, 90; Robin, 4; Cedar Waxwing, 3; Evening Grosbeak, 182; Purple Finch, 3; Pine Siskin, 872; Red Crossbill, 6; White-winged Crossbill, 210; Slate-colored and Carolina Junco, 31; White-throated Sparrow, 3 (first recurrence of the species in 10 years in a rhododendron (*Catawbiense*) - briar-alder - spruce balsam fir habitat at 5700-5800 ft. in the same area as observed during the winter of 1955-56). Total, 13 species, 1414 individuals. Fred W. Behrend.

SPRING COUNTS

GREENEVILLE—Area around Greeneville, Tusculum, Nolichucky River, Paint Creek, Roaring Fork and Bluff Mountain. 25 Apr. 1965; 5:30 a.m. to 6:00 p.m. Intermittent showers and a temperature of 70 degrees. 12 observers. Richard Nevius, compiler.

Great Blue Heron, 3; American Bittern, 1; Canada Goose, 5; Snow Goose, 1; Egyptian Goose, 1; Blue-winged Teal, 22; Wood Duck, 14; Lesser Scaup, 6; Turkey Vulture, 8; Cooper's Hawk, 1; Red-tailed Hawk, 2; Sparrow Hawk, 3; Ruffed Grouse, 1; Bobwhite, 36; American Coot, 3; Killdeer, 6; Common Snipe, 20; Spotted Sandpiper, 1; Solitary Sandpiper, 4; Lesser Yellowlegs, 2; Mourning Dove, 72; Screech Owl, 3; Chuck-will's-widow, 2; Chimney Swift, 106; Ruby-throated Hummingbird, 2; Belted Kingfisher, 2; Flicker, 23; Pileated Woodpecker, 13; Red-bellied Woodpecker, 8; Red-headed Woodpecker, 6; Downy Woodpecker, 10; Eastern Kingbird, 13; Great Crested Flycatcher, 10; Phoebe, 13; Acadian Flycatcher, 2; Wood Pewee, 2; Tree Swallow, 2; Rough-winged Swallow, 8; Barn Swallow, 41; Purple Martin, 74; Blue Jay, 92; Common Crow, 42; Carolina Chickadee, 26; Tufted Titmouse, 27; White-breasted Nuthatch, 1; House Wren, 5; Bewick's Wren, 5; Carolina Wren, 8; Mockingbird, 76; Catbird, 8; Brown Thrasher, 56; Robin, 94; Wood Thrush, 19; Hermit Thrush, 1; Bluebird, 28; Blue-gray Gnatcatcher, 17; Loggerhead Shrike, 11; Starling, 153; White-eyed Vireo, 3; Solitary Vireo, 2; Red-eyed Vireo, 8; Black and White Warbler, 4; Prothonotary Warbler, 1; Worm-eating Warbler, 1; Blue-winged Warbler, 1; Yellow Warbler, 14; Cape May Warbler, 1; Myrtle Warbler, 28; Black-throated Green Warbler, 12; Chestnut-sided Warbler, 3; Pine Warbler, 3; Palm Warbler, 1; Ovenbird, 15; Louisiana Waterthrush, 5; Yellowthroat, 18; Yellow-breasted Chat, 16; Hooded Warbler, 1; American Redstart, 2; House Sparrow, 34; Meadowlark, 95; Redwinged Blackbird, 86; Orchard Oriole, 12; Common Grackle, 147; Brown-headed Cowbird, 26; Scarlet Tanager, 11; Summer Tanager, 13; Cardinal, 85; Rose-breasted Grosbeak, 3; Indigo Bunting, 11; American Goldfinch, 36; Rufous-sided Towhee, 34; Savannah Sparrow, 2; Grasshopper Sparrow, 6; Tree Sparrow, 1; Chipping Sparrow, 54; Field Sparrow, 33; White-crowned Sparrow, 22; White-throated Sparrow, 25; Swamp Sparrow, 2; Song Sparrow.

EASTERN SMOKIES.—Cosby recreation area, up Cosby Creek to Low Gap. 8:40 a.m. to 5:00 p.m. Clear and a mild temperature. 2 May 65; two observers. Richard Nevius, compiler.

Red-tailed Hawk, 1; Broad-winged Hawk, 1; Ruffed Grouse, 3; Barred

Owl, 1; Chimney Swift, 2; Ruby-throated Hummingbird, 1; Flicker, 1; Pileated Woodpecker, 2; Hairy Woodpecker, 1; Phoebe, 1; Acadian Flycatcher, 3; Blue Jay, 1; Common Crow, 2; Tufted Titmouse, 2; Winter Wren, 1; Wood Thrush, 6; Hermit Thrush, 1; Solitary Vireo, 6; Red-eyed Vireo, 11; Black and White Warbler, 4; Black-throated Blue Warbler, 1; Black-throated Green Warbler, 4; Blackburnian Warbler, 1; Ovenbird, 12; Louisiana Waterthrush, 2; Hooded Warbler, 4; Canada Warbler, 1; American Redstart, 1; Scarlet Tanager, 5; Rose-breasted Grosbeak, 6; American Goldfinch, 3; Rufous-sided Towhee, 2; Slate-colored Junco, 2; Song Sparrow.

The two preceding counts were omitted from the September issue of THE MIGRANT because they were temporarily misplaced. Ed.

THE SEASON

MEMPHIS — Loons - Ducks: C. Loon: 9 Oct. BKR; 21 Nov. BKR (HD, TC). Horned Grebe: 17 Oct. LON; 28 Nov. LCA (4) & MNL (7); BKR—24 Oct. thru 14 Nov. (4); FVL—24 Oct. & 11 Nov. (0).

Rails - Terns: Virginia Rail: 10 Oct. MFS, LW (found dead) (BC). Golden Plover: BKR, 18 Sept.-10 Oct. (2 & 1); 24 Oct. (18). Spotted Sandpiper: 5 Dec. CRIT. Greater Yellowlegs: 7 Nov. BKR. Dunlin: 17 Oct. LON (5); 24 Oct. CRIT (2). Sanderling: 3 Oct. MMS 2d Mid-South (1st by BC, 37 yrs.). Common Tern: 11 Sept. JXN (23); 18 Sept. BKR (13).

Swallows - Waxwings: Tree Swallow: 7 Nov. HEL (12); & Cooter, Mo. (400), (AS). Barn Swallow: 28 Nov. LCA (2), (LC). Red-breasted Nuthatch: 26 Sept. SNMP (2), (AS); 30 Oct. HAR (3), CFH (0), CFC (5); 31 Oct. SFSP, (AS); none, since. House Wren: 10 Oct. CRIT, (VJ); 30 Oct. CFC; 28 Nov. LCA (4); 5 Dec. CRIT (1), FVL (1). Cedar Waxwing: 26 Sept. SNMP (25), MFS. CHAP.

Finches: Pine Siskin: 10 Oct. SFSP (10) (LC); 11 Dec. OVP (25); otherwise, uncommon.

Locations: BKR—Booker, Ark., CRIT—Crittenden Co., Ark., misc. FVL—Five Lakes, incl. Horseshoe & Porter Lakes, Ark., HEL—Heloise, JXN—Madison Co., LCA—Lake Chicot, Ark., LON—Lonoke, Ark., MFS—Memphis misc., MMS—Mammoth Spring, Ark., MNL—Moon Lake (Lula), Miss., OVP—Overton Park, SFSP—Shelby Forest S. P., SNMP—Shiloh Natl. Mil. Park. CHF, CFC—Chickasaw Forest, Hardeman Co., Chester Co.

Observers—TC—Mrs. Ed Carpenter, HD—Mrs. Henry Dinkelspiel, VJ—Victor Julia, AS—Alice Smith, LW—Mrs. Chas. Wilmeth, BC—Ben Coffey, LC—Mrs. Ben Coffey.

BEN B. COFFEY, JR., 672 North Belvedere, Memphis, Tenn. 38107.

NASHVILLE—Loons - Ducks: Common Loon: 20 Nov. (5), 27 Nov. (3), OHL (LOT, HEP). Horned Grebe: 27 Nov. (40+) OHL (LOT, SB). Little Blue Heron: 5 Oct. (1) RL (MCW). Canada Goose: 29 Sept.-3 Oct. (1) BL (HEP) then several small flocks early Oct. Mallard, late and scarce. Black Duck: 2 Oct. (4) BV (JP), 4 days earliest ever. Canvasback: 1 Nov. (4) BL (HEP) early. Lesser Scaup: late and scarce. Bufflehead: late and only one record. Ruddy Duck: 30 Oct. (1) BL (HEP) early. Hooded Merganser: 1 Nov. (1) BL (HEP), ties earliest ever date.

Rails - Flycatchers: Virginia Rail: 24 Sept. (1) TV Casualty ARL. Solitary Sandpiper: 17 Oct. (1) MR (MCW), 7 days latest except for a winter record. Least Sandpiper: 20 Nov. (5), 27 Nov. (2), both CL (LOT, HEP). Herring Gull: 20 Nov. (58) at dam OHL (LOT, HEP), an unusual number

here. Ring-billed Gull: late. Bonaparte's Gull: 20 Nov. (55), 27 Nov. (300+) OHL (LOT, HEP). Nighthawk: 5 Sept. (232) TJ's (MB), 18 Oct. (1) (HCM). Eastern Kingbird: 10 Oct. (1) feeding TJ's (HEP), 14 days latest ever. Yellow-bellied Flycatcher: 26 Sept. (2), 30 Sept. (1), both TV casualties (ARL).

Swallows - Thrushes: Swallows: no fall records. Red-breasted Nuthatch: 3 Oct. (1) TJ's (KD), common in Oct., fairly common Nov. House Wren: 5 Oct. (1) TJ's (KAG). Winter Wren: 9 Oct. (1) TJ's (KAG). Long-billed Marsh Wren: 24 Sept. (1), 26 Sept. (2), both TV casualties (ARL). Robins: scarce by mid Nov. Swainson's Thrush: 3 Sept. (1) TJ's (KAG) and 24 Oct. (1) TV cas. (ARL). Veery: 3 Sept. (1) also TJ's (KAG).

Warblers - Orioles: Golden-winged Warbler: 6 Sept. (1) FV (RC). Parula Warbler: 19 Oct. (1) home (SB), 10 days latest ever. Cape May Warbler: 23 Sept. (1) TV cas. (ARL), first area specimen in over 9000 warbler casualties. Black-throated Blue Warbler: 24 Sept. (1) TV cas. (ARL). Blackpoll Warbler: 3 Oct. (1) TV cas. (ARL). Chestnut-sided Warbler: 19 Oct. (2) home (SB). Bay-breasted Warbler: 31 Oct. (24) RL (MCW, JOE). Mourning Warbler: 5 Sept. (2), 18 and 24 Sept. (1), all TJ's (KAG). Yellowthroat: 16 Oct. (1) home (KAG). Bobolink: 13 Sept. (1), 24 Sept. (4), 25 Sept. (1), 26 Sept. (4), all TV cas. (ARL). Baltimore Oriole: 24 Sept. (4) TV cas. (ARL), two days latest ever until a record of (2) on 12 Oct., at home RL (MPL, *fide* ARL).

Grosbeaks - Sparrows: Rose-breasted Grosbeak: 29 Oct. (1) male RL (MCW), 5 days latest ever. Dickcissel: 18-23 Oct. (2-10) home (HH). Evening Grosbeak: 28 Nov. (2) home (BHA's). Purple Finch: fairly common to date. Pine Siskin: 24 Oct. (2) 22 miles west of Nashville (KAG), a few other records to date. Slate-colored Junco: 6 Oct. (1) TJ's (KAG), scarce to date. Harris' Sparrow: 17 Nov. to date (1) home (FM), 23 days earliest ever. White-crowned Sparrow: 4 Oct. (1) home (HH), ties earliest fall date. White-throated Sparrow: late and scarce to date. Fox Sparrow: 4 Oct. (1) TJ's (KAG), 10 days earliest for fall. Lincoln's Sparrow: 4 Oct. (1) also TJ's (KAG).

Locations: BL—Bush Lake, BV—Buena Vista, CL—Coleman's Lake, FV—Fernvale, MR—Moran Road, OHL—Old Hickory Lake, RL—Radnor Lake, TJ's—Two Jays Sanctuary.

Observers: BHA—B. H. Abernathy, SB—Sue Bell, MB—Mike Bierly, RC—Ruth Castles, KD—Kenneth Dubke, JOE—John O. Ellis, KAG—Katherine A. Goodpasture, HH—Helen Hodgson, MPL—Margaret P. Leonard, ARL—Amelia R. Laskey, FM—Fanny Murphy, HCM—Harry C. Monk, HEP—Henry E. Parmer, JP—Jimmy Parrish, LOT—Lawrence O. Trabue, MCW—Mary C. Wood.

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

COOKEVILLE—Cuckoos - Thrashers: Yellow-billed Cuckoo: 25 Sept. RA (RH); Common Nighthawks: 3rd week Sept. (2) (CH); Chimney Swift: last on 18 Sept. HP (CH); Ruby-throated Hummingbird: 27 Sept. HP (CH); last on 10 Oct. (RH); Eastern Kingbird: last on 14 Sept.; Catbird: last on 2 Oct. RA (RH); Brown Thrasher: unusual number in late Nov. RA (RH).

Robin - Finches: Robin: 16 Sept. (30+) (CH) last; American Redstart: 2 Oct. (2) (EBK); Rose-breasted Grosbeak: 2 Oct. (2) and each day until 15 Oct. (RH).

Locations: HP—Home Place, RA—Rickman Area.

Observers: BC—Beulah Clark, CH—Caprice Haile, RH—Roy Hines, EBK—Mrs. E. B. Knight.

MARIE WHITE, 1218 Byrne Ave., Cookeville, Tenn. 38501.

CHATTANOOGA—Loon - Ducks: Common Loon: First 11 Nov. (3) WBL (JD); maximum 25 Nov. (30); 28 in one raft. Horned Grebe: first 31 Oct. (3). Double-crested Cormorant: 17 Oct. (1) CL (KD, JD). Green Heron: last 4 Nov. (1) AM (JD). Little Blue Heron: last 25 Sept. (1). Cattle Egret: 12 Sept. (2) WBL (JD); 25 Nov. (1) CL (JD, KD). Common Egret: last 14 Nov. (3) SF. Yellow-crowned Night Heron: 7 & 16 Sept. (1). Canada Goose: first 3 Oct. (16) SF. Snow Goose: 31 Oct. (3) HI; 29 Nov. (1) WR (KD, RTB). Blue Goose: 17 Oct. (1) SF; 31 Oct. (4) HI; 7 Nov. (1) WBL (JD). Gadwall: first 14 Sept. (1) VOW (JD). Pintail: 3 Oct. (1); maximum 28 Nov. (16). Green-winged Teal: first 8 Oct. (1) AM. Blue-winged Teal: last 28 Nov. (2) CL (JD); maximum 9 Oct. (42). American Widgeon: 17 Oct. (1); maximum 28 Nov. (28). Shoveler: 9 Sept. (1) VOW (KD); 31 Oct. (2) HI; 14 Nov. (7) & 15 Nov. (1). Wood Duck: maximum 7 Nov. (26) WBL (JD). Ring-necked Duck: first 14 Nov. (12); maximum 28 Nov. (29) CL. Canvasback: 28 Nov. (6) CL. Lesser Scaup: first 14 Nov. (775) CL. Common Goldeneye: 28 Nov. (8) CL. Bufflehead: first 14 Nov. (4) CL; maximum 28 Nov. (27). Ruddy Duck: 14 Nov. (8); 25 & 28 Nov. (3) CL. Hooded Merganser: first 14 Nov. (5) CL. Red-breasted Merganser: 28 Nov. (3) CL.

Hawks - Swallows: Broad-winged Hawk: last 23 Oct. (4) SF (JD). Bald Eagle: 31 Oct. (1) HI; 29 Nov. (1 Imm.) WR (KD, RTB). Marsh Hawk: first 6 Sept. (1). Pigeon Hawk: 9 Oct. (1 Ad. male) Dayton (JD). King Rail: 7 Sept. (1) AM (JD). Sora: 7 Sept. (1) AM (JD). American Coot: first 24 Oct. (112). Semipalmated Plover: 1 Sept. (1) SF (KD). Common Snipe: first 25 Sept. (1) AM (JD); maximum 14 Nov. (25). Spotted Sandpiper: last 21 Nov. (1) SF (KD). Solitary Sandpiper: last 28 Oct. (2). Greater Yellowlegs: 25 Sept. (3) & 1 Oct. (1). Lesser Yellowlegs: last 8 Oct. (2); maximum 1 Sept. (10) SF. Dunlin: 24 Oct. (6) to 21 Nov. (7) SF; maximum 3 & 7 Nov. (12); 31 Oct. (26 in one flock) HI. Dowitcher: 24 & 25 Sept. (1) SF (JD). Semipalmated Sandpiper: regular, last 3 Oct. (1) AM (JD); maximum 4 Sept. (3). Western Sandpiper: 4 Sept. (2) AM & SF (JD); 7 Sept. (3) AM (KD) & 16 Sept. (3) VOW (JD). Herring Gull: first 31 Oct. (3) HI; maximum 11 Nov. (22) WBL (JD). Ring-billed Gull: first 20 Nov. (4) WBL (JD). Bonaparte's Gull: 3 Oct. (44) HB (AW). Forster's Tern: 26 Sept. (1) SF (JD, KD). Common Tern: 13 Sept. (1); 18 Sept. (1) WR & 2 Oct. (1) all JD. Caspian Tern: 2 Sept. (40 in one flock) CL (JD). Black Tern: regular till 18 Sept. (1) WR (JD); maximum 12 Sept. (10). Yellow-billed Cuckoo: last 16 Oct. (1) (JD). Black-billed Cuckoo: last 1 Sept. (1) (JD). Common Nighthawk: last 15 Oct. (2) H (JD). Chimney Swift: last 9 Oct. (AW). Ruby-throated Hummingbird: last 13 Oct. (1) AM (JD). Yellow-bellied Sapsucker: first 10 Oct. (AW). Eastern Kingbird: last 6 Sept. (3). Eastern Wood Pewee: last 16 Oct. Horned Lark: 16 Sept. (30) (JD). Tree Swallow: 1 Sept. (28) (JD). Bank Swallow: 1 Sept. (89) (JD). Rough-winged Swallow: 9 Oct. (2) (JD). Barn Swallow: last 15 Sept.

Nuthatches - Sparrows: Red-breasted Nuthatch: first 19 Sept. (1) EM (AW); regular since. Brown Creeper: first 15 Sept. (1). Winter Wren: 13 Nov. (1). Long-billed Marsh Wren: 9 Oct. (1) SF (JD). Short-billed Marsh Wren: 15 Sept. (1) SF (JD); 3 Oct. (1) & 17 Oct. (1). Hermit Thrush: 13 Nov. (1). Water Pipit: 17 Oct. (5); 7 Nov. (15); 25 & 28 Nov. (2) SF. Blue-

gray Gnatcatcher: last 19 Sept. Golden-crowned Kinglet: first 17 Oct. (5). Ruby-crowned Kinglet: first 31 Oct. (2). Cedar Waxwings: regular since 27 Oct. (12) LP (RTB). White-eyed Vireo: last 15 Sept. (1). Red-eyed Vireo: last 3 Oct. (1). Black & white Warbler: last 28 Sept. (1). Tennessee Warbler: 19 Sept. (1) to 16 Oct. (2). Nashville Warbler: 10 Oct. (1) (JD). Yellow Warbler: last 1 Sept. (1) (KD). Magnolia Warbler: 6 Sept. to 10 Oct. Myrtle Warbler: first 17 Oct. (6). Black-throated Green: last 10 Oct. Blackburnian Warbler: 10 Sept. to 16 Oct. Yellow-throated Warbler: 10 Oct. Chestnut-sided Warbler: 10 Oct. Bay-breasted Warbler: 26 Sept. (3) (KD). Palm Warbler: 10 Oct. Yellowthroat: 17 Oct. Yellow-breasted Chat: 17 Oct. American Redstart: 19 Sept. Bobolink: 9 Sept. (1) & 17 Oct. (7) (KD). Scarlet Tanager: last 5 Sept. Summer Tanager: 19 Sept. Rose-breasted Grosbeak: 10 Oct. Blue Grosbeak: 26 Sept. (10). Indigo Bunting: 10 Oct. Purple Finch: first 6 Nov. (TSB); then regular, flocks to 15. Pine Siskin: first 17 Oct. (2) (KD), then regular in flocks to 75. Red Crossbill: 25 Nov. (1) BTWSP (JD). Savannah Sparrow: first 26 Sept. (6). Grasshopper Sparrow: 26 Oct. (2). Slate-colored Junco: first 24 Oct. (6). White-throated Sparrow: first 9 Oct. Fox Sparrow: 12 Nov. (1). Lincoln's Sparrow: 24 Oct. (1) AM (KD) & 4 Nov. (2) AM (JD). Swamp Sparrow: first 9 Oct. (1).

Locations: AM—Amnicola Marsh, BTWSP—Booker T. Washington State Park, CL—Chickamauga Lake, EM—Elder Mountain, HB—Harrison Bay, HI—Hiwassee Island, H—Hixon, LP—Leaning Pine, SF—Savannah Flats, VOW—Volunteer Ordnance Works, WBL—Watts Bar Lake.

Observers: TSB—T. S. Barr's, RTB—Ralph T. Bullards, JD—John DeVore, KD—Kenneth Dubke, AW—Adele West.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga, Tenn. 37411.

KNOXVILLE—Herons - Ducks: Common Egret: until 29 Oct. (2), late. Canada Goose: first on 26 Sept. (6); a late migrating flock on night of 27 Nov.

Hawks - Gulls: Broad-winged Hawk: large flights for this area on 26 Sept. Bobwhite: count on 26 Sept. was four times higher than on same date last year. Woodcock: 18 and 19 Sept. (1). Semipalmated Plover: 26 Sept. (1); few other shorebird records this season. Ring-billed Gull: first on 26 Sept. (8) (RD). Common Tern: 26 Sept. (1) (JCH).

Swifts - Vireos: Chimney Swift: last on 10 Oct. Ruby-throated Hummingbird: last on 10 Oct. Rough-winged and Barn Swallows: unusually many for the late date of 26 Sept. (GW). Wood Pewee: late on 20 Oct. (1). Olive-sided Flycatcher: 26 Sept. (1) (JBO). Red-breasted Nuthatch: first on 25 Sept.; fairly common for a few days and then decreasing to small numbers remaining through November. Bluebird: count on 26 Sept. was twice that of a year ago. Warbling Vireo: 26 Sept. (2).

Warblers - Finches: Golden-winged Warbler: 9 Oct., late (JC). Baltimore Oriole: 26 Sept. (2), late. Rusty Blackbird: 26 Sept. (4) early. Dickcissel: 26 Sept. (1) (JCH). Evening Grosbeak: 20 Nov. (12) (MS). Purple Finch: first on 30 Oct., relatively scarce this fall. Pine Siskin: 22 Nov. (3) (JTT). Fox Sparrow: 1 thru 7 Oct. (1). Lincoln's Sparrow; 8 Sept. thru November (1) at home of Mr. and Mrs. Kenneth Sanders.

Contributors: JC—James Campbell, RD—Robert Dunbar, JCH—J. C. Howell, JBO—J. B. Owen, Mrs. Kenneth Sanders, MS—Maxie Swindell,

GW—George Woods.

JAMES T. TANNER, Route 10, Knoxville, Tenn.

GREENEVILLE—Grebe - Merganser: Horned Grebe: 28 Nov. (5) H. Great Blue Heron: 28 Nov. (4) H. Canada Goose: 28 Nov. (4) H. Snow Goose: 22 Sept. (1) A; 4 Oct. (1) A; 14 Nov. (1) A. Egyptian Goose: 22 Sept. (2) A; 4 Oct. (2) A; 14 Nov. (2) A. Mallard: 28 Nov. (75) H. Shoveler: 28 Nov. (2) H. Wood Duck: 17 Oct. (1) A; 1 Nov. (3) A; 13 Nov. (6) A. Common Merganser: 28 Nov. (2) H.

Vulture - Falcon: Turkey Vultures: 30 Sept. (2) A; 15 Oct. (5) A. Black Vulture: 30 Sept. (1) A; 15 Oct. (3) A. Red-tailed Hawk: 14 Oct. (1) A. Marsh Hawk: 25 Oct. (1) M. Sparrow Hawk: 15 Oct. A.

Grouse - Flycatcher: Ruffed Grouse: 6 Nov. (6) C. Bobwhite: 29 Sept. (12) A; 14 Nov. (20) R. American Coot: 28 Oct. (1) A; 28 Nov. (300) H (RM, RN). Killdeer: 22 Nov. (20) A; 24 Nov. (10) A; 26 Nov. (6) A. American Woodcock: 7 Nov. (1) A; 9 Nov. (4) A; 12 Nov. (2) A. Mourning Dove: 8 Nov. (40) A; 10 Nov. (60) A; 20 Nov. (30) A. Black-billed Cuckoo: 13 Oct. (1) A. Screech Owl: 13 Nov. (1) A; 18 Nov. (1) A. Great Horned Owl: 7 Nov. (1) A. Common Nighthawk: 1 Oct. (1) A. 2 Oct. (1) A; 15 Oct. (1) A. Chimney Swift: 10 Oct. (10) A. Ruby-throated Hummingbird: 2 Oct. (1) A; 16 Oct. (1) F. Belted Kingfisher: 14 Oct. (1) A; 30 Oct. (1) A; 24 Nov. (1) A. Yellow-shafted Flicker: 27 Oct. (1) A; 24 Nov. (1) A. Pileated Woodpecker: 12 Nov. (1) A; 29 Nov. (1) A; 25 Nov. (1) A. Downy Woodpecker: 17 Oct. (1) A; 5 Nov. (1) A.

Larks - Bluebirds: Horned Lark: 15 Sept. (5) A; 5 Oct. (10) A; 7 Nov. (2) A. Blue Jay: 9 Sept. (5) A; 1 Oct. (4) A; 5 Nov. (2) A. Common Crow: 30 Sept. (6) A; 21 Oct. (10) A; 31 Oct. (30) U; 6 Nov. (20) C. Carolina Chickadee: 31 Oct. (15) U; 24 Nov. (2) A. Tufted Titmouse: 31 Oct. (10) U; 25 Nov. (3) A. White-breasted Nuthatch: 25 Oct. (1) M; 6 Nov. (3) C. Red-breasted Nuthatch: 6 Nov. (2) C. Brown Creeper: 31 Oct. (1) U; 6 Nov. (1) C. Winter Wren: 31 Oct. (2) U; 6 Nov. (4) C. Bewick's Wren: 27 Nov. (2) A. Carolina Wren: 27 Nov. (3) A. Mockingbird: 21 Sept. (2) A; 3 Oct. (3) A; 14 Nov. (5) A. Robin: 31 Oct. (100) U; 6 Nov. (25) C. Eastern Bluebird: 21 Sept. (5) A; 9 Oct. (4) A; 20 Nov. (4) A.

Kinglets - Finches: Ruby-crowned Kinglet: 17 Oct. (1) A; 6 Nov. (1) C. Loggerhead Shrike: 15 Sept. A; 13 Oct. (2) A; 14 Nov. (2) A. Starling: 5 Sept. (25) A; 25 Sept. (10) A; 30 Sept. (5) A; 21 Oct. (6) A; 30 Oct. (15) A; 7 Nov. (7) A. House Sparrow: 30 Sept. (5) A; 22 Nov. (7) A. Eastern Meadowlark: 30 Sept. (20) A; 23 Nov. (25) A; 24 Nov. (35) A; 25 Nov. (30) A. Redwinged Blackbird: 17 Oct. (2) A. Cardinal: 15 Sept. (5) A; 13 Oct. (2) A; 7 Nov. (2) A. Pine Siskin: 6 Nov. (6) C. American Goldfinch: 6 Nov. (10) C. Rufous-sided Towhee: 31 Oct. (4) U; 6 Nov. (3) C. Vesper Sparrow: 14 Oct. (2) A. Slate-colored Junco: 6 Nov. (15) C. Field Sparrow: 31 Oct. (6) U. White-crowned Sparrow: 12 Oct. (1) A; 13 Oct. (1) A; 14 Nov. (10) A. White-throated Sparrow: 31 Oct. (8) U. Swamp Sparrow: 17 Oct. (1) A.

Locations: H—Holston River near Beech Creek, A—Albany, M—Marvin, C—Cassi Creek, R—Rader's Side track, F—Loudon, Tenn., U—Clark's Creek.

Observers: RM—Roger Miller, RN—Ruth or Richard Nevius.

RICHARD NEVIUS, Route 3, Greeneville, Tenn. 37743.

BRISTOL—Loons - Mergansers: Common Loon: first 15 Oct. (2) SHL until 26 Nov. (2) BL; maximum: 23 Oct. (10) SHL. Horned Grebe: 26 Nov. (8) BL. Pied-billed Grebe: 2 Oct. (1) first (SHL) until 26 Nov. (1) BL; maximum: 24 Oct. (10) SHL. Great Blue Heron: first 12 Sept. (1) SHL; until 26 Nov. (4) BL. Green Heron: last 26 Sept. (3) SMM-SHL. Common Egret: 23 Oct. (5) SHL (WC-TH). Mallard: 26 Nov. (10) BL. Gadwall: 26 Nov. (5) PHL. Green-winged Teal: 12 Sept. (1) SMM (WC). American Widgeon: 26 Nov. (10) PHL. Lesser Scaup: 26 Nov. (1) PHL. Bufflehead: 26 Nov. (5) BL. Hooded Merganser: 26 Nov. (2) BL.

Vultures - Hawks: Turkey Vulture: regular until 29 Oct. (1); maximum: 22 Oct. (11). Cooper's Hawk: 1 Oct. (1) SHL; 23 Oct. (1) SHL. Bald Eagle: 24 Oct. (1) SHL (WC, TH, HH); 26 Nov. (1) BL (WC, RS). Osprey: 15 Sept. (1) DV. Sparrow Hawk: 20 Sept. (2); 25 Sept. (2).

Rails - Gulls: Virginia Rail: 25 Sept. (1—dead) BV (HM, WC). Sora Rail: 12 Sept. (2) SMM (WC); 26 Sept. (2) SMM (WC). American Coot: 24 Oct. (30) SHL (WC, TH, HH). Semipalmated Plover: 12 Sept. (1) SMM (WC); 26 Sept. (2) SMM (WC). Killdeer: regular until 26 Nov. (2) BL. Common Snipe: 22 Oct. (1) SHR (WC) first. Greater Yellowlegs: 2 Oct. (1) SHL (WC, BW). Lesser Yellowlegs: 23 Oct. (1) SHL; 24 Oct. (1) SHL (WC, TH, HH). Pectoral Sandpiper: 26 Sept. (1) SMM (WC). Least Sandpiper: 23 and 24 Oct. (1) SHL. Dunlin: 26 Nov. (3) BL (WC, RS). Ring-billed Gull: first 22 Oct. (1) SHL until 26 Nov. (11) BL the maximum.

Cuckoos - Raven: Yellow-billed Cuckoo: 25 Sept. (1) SHL, last. Screech Owl: 20 Nov. (1) BV. Great Horned Owl: 6 Oct. (1) SHL (WC); 8 Oct. (1) SHL (WC). Common Nighthawk: 22 Oct. (1) BT (WC) very late; 16 Sept. (23) migration above 3000 feet elevation MV (WC, CS). Chimney Swift: last 2 Oct. (4). Ruby-throated Hummingbird: last 3 Oct. (1) WC. Yellow-shafted Flicker: 25 Sept. (3). Red-bellied Woodpecker: 3 Nov. (1) FH (WC); 26 Nov. (1) BL (WC, RS). Red-headed Woodpecker: 16 Sept. (2) MV; 13 Oct. (3) BT. Yellow-bellied Sapsucker: 1 Nov. (1) first. Wood Pewee: last: 16 Sept. (1) MV and 12 Sept. SV (JS). Horned Lark: 10 Oct. (20) TA (WC); 29 Oct. (4). Barn Swallow: last 2 Sept. SV (JS). Cliff Swallows: 4 Sept. SV (JS) last. Raven: 16 Sept. (1) MV (WC, CS); 17 Sept. (2) MV (WC, BQ).

Wrens - Vireos: Winter Wren: 22 Nov. (1) BT (WC). Catbird: last 13 Oct. (1). Brown Thrasher: 25 Sept. (1). Robin: 25 Sept. (1); 2 Oct. (2). Bluebird: 25 Sept. (2); 2 Oct. (5); 23 Oct. (1). Ruby-crowned Kinglet: first 22 Oct. (1) SHL; 29 Oct. (1). Cedar Waxwing: 23 Oct. (8); 24 Nov. (10); 25 Nov. (12). Loggerhead Shrike: 25 Sept. (1) SHL; 22 Oct. (5); 29 Oct. (1); 26 Nov. (2) BL. White-eyed Vireo: 12 Sept. (1) SMM (WC) last.

Warblers: Black-and-white Warbler: last 25 Sept. (1) SHL. Tennessee Warbler: 16 Sept. (8) MV; 17 Sept. (2) MV; 2 Oct. (22) SHL (WC, BW). Magnolia Warbler: 22 Oct. (10) SHR (WC). Cape May Warbler: 25 Sept. (2) SHL. Myrtle Warbler: first 2 Oct. (2). Black-throated Green Warbler: 17 Sept. (1) MV; Blackburnian Warbler: 16 Sept. (12) MV; 17 Sept. (6) MV. Chestnut-sided Warbler: 16 Sept. (1) MV. Bay-breasted Warbler: 25 Sept. (1) SHL (WC, DM); 2 Oct. (1) SHL (WC, BW). Blackpoll: 17 Sept. (1) MV (WC, BQ). Pine Warbler: 25 Sept. (1) SHL (WC, DM). Palm Warbler: 25 Sept. (4) first; 2 Oct. (1) SHL. Yellowthroat: 25 Sept. (2) SHL last. American Redstart: 25 Sept. (3) SHL.

Blackbirds - Finches: Redwinged Blackbird: 29 Oct. (200) PT. Common Grackle: 29 Oct. (10); 2 Oct. (2) SHL. Brown-headed Cowbird: 20 Sept. (20) PT (WC). Scarlet Tanager: last 25 Sept. (1) SHL (WC, DM). Indigo

Bunting: 23 Oct. (1) SHL (WC) last. Purple Finch: first 24 Nov. (1) BT (HCE); 26 Nov. (4) SHL (WC). Pine Siskin: 3 Nov. (2) FH (WC) first. Slate-colored Junco: 11 Sept. SV (JS) first in valley floor; 1 Nov. (15) BT (WC) first. White-throated Sparrow: first 22 Oct. (15).

Locations: BL—Boone Lake, BT—Bristol, Tenn., BV—Bristol, Virginia, DV—Damascus, Va., FH—Fish Hatchery near Tri-Cities Airport, MV—Clinch Mountain, Mendota, Va., PHL—Patrick Henry Lake, PT—Paperville, Tenn., SHL—South Holston Lake, SHR—South Holston River, SMM—Stone Mill Marsh, Abingdon, Va., TA—Tri-Cities Airport.

Observers: WC—Wallace Coffey, HCE—H. C. Epperson, HH—Harvey Hawk, TH—Tim Hawk, HM—Mrs. Herbert Miller, DM—David McPeak, BQ—Bob Quillen, CR—Carolyn Randall, JS—John Shumate, CS—Charles Smith, RS—Roger Stone, BW—Bob Wagner.

WALLACE COFFEY, 508 Spruce Street, Bristol, Tennessee 37622.

ELIZABETHTON—Loons - Mergansers: Common Loon: first on 3 Nov. (12); maximum number (31) on 14 Nov. on BL (LRH). Horned Grebe: first on 3 Nov. (1); maximum number (8) on 25 Nov. Pied-billed Grebe: maximum number (37) on 3 Oct. on WiL (JCB). Double-crested Cormorant: 3, 20, 25 Nov. (1) on BL (LRH et al.). Great Blue Heron: maximum number (15) on 25 Nov. on BL and PHL. Green Heron: last on 25 Oct. (1). Canada Goose: 12 Sept. (15); 24 Oct. (23) on PHL; 3, 6 Nov. (21) on PHL; 8 Nov. (25) on WaL; 15 Nov. (4). Mallard: first on 24 Oct. (5); maximum number (8) on 27 Nov. Black Duck: first on 24 Oct. (2); maximum number (44) on 27 Nov. on BL. Gadwall: first on 3 Nov. (9). Pintail: 6 Nov. (9) on BL (CRS); 14 Nov. (2) on BL (LRH). Blue-winged Teal: 3 Oct. (3). American Widgeon: first and maximum number (33) on 24 Oct. Wood Duck: 4 Sept. (2); 3 Oct. (1); 13 Nov. (2); 25 Nov. (7). Redhead: 14 Nov. (1) on BL (LRH). Ring-necked Duck: first on 24 Oct. (6). Canvasback: 6 Nov. (1); 13 Nov. (3). Lesser Scaup: first on 24 Oct. (15); maximum number (39) on 6 Nov. Common Goldeneye: 27 Nov. (7) on BL. Bufflehead: 24 Oct. (4); 25 Nov. (1); 27 Nov. (35) on WiL. Ruddy Duck: 24 Oct. (4) on BL; 3 Nov. (2); 14 Nov. (1). Hooded Merganser: 6 Nov. (10); 13 Nov. (17); 20 Nov. (7); 25 Nov. (4). Red-breasted Merganser: 25 Nov. (4).

Vultures - Cuckoos: Black Vulture: 3 Oct. (1); 24 Oct. (5). Red-tailed Hawk: 24 Oct. (1); 14, 23 Nov. (1). Broad-winged Hawk: 22 Sept. (1); 3 Oct. (5). Marsh Hawk: 11 Sept. (1); 3 Oct. (1). Osprey: 4 Sept. (1) at RC; 3 Oct. (1). Sparrow Hawk: 3, 26 Oct. (1); 25 Nov. (2). Turkey: 2 Nov. (1); 5 Nov. (3); all in KWMA (JB). Virginia Rail: 29 Sept. (1) (LRH). American Coot: 24 Oct. (65) on BL; 14, 25 Nov. (1). American Woodcock: 11 Sept. (1) on RM (KHD). Common Snipe: 6 Nov. (1) at MC; 14 Nov. (1) at LPN (FWB). Spotted Sandpiper: 4 Sept. (1); 4 Oct. (1). Solitary Sandpiper: 8 Sept. (1). Least Sandpiper: 14 Nov. (1) at BL (LRH). Dunlin: 24 Oct. (1); 3 Nov. (4); 6 Nov. (3); 14 Nov. (2); 20 Nov. (4); all at BL. Herring Gull: 10 Nov. (18) (FWB); 27 Nov. (1) on BL (CRS). Ring-billed Gull: first on 24 Oct. (5); maximum number (52) on 20 Nov. on BL. Common Tern: 2 Sept. (43); 6 Sept. (9). Black Tern: 4 Sept. (1) at RC (LRH). Yellow-billed Cuckoo: last on 25 Sept. (1). Black-billed Cuckoo: last on 3 Oct. (2).

Owls - Vireos: Great Horned Owl: 11 Sept. (1) on RM (WC, KHD et

al.); 8 Oct., 8 Nov. (1) near MC (CRS). Barred Owl: 11 Sept. (2) on RM (WC, KHD et al.). Nighthawk: last on 27 Sept. (11). Chimney Swift: last on 13 Oct. (1). Ruby-throated Hummingbird: last on 3 Oct. (1). Red-headed Woodpecker: 15 Nov. (2) (GD, HD). Yellow-bellied Sapsucker: first on 3 Oct. (2). Hairy Woodpecker: 11 Sept. (1) on RM. Eastern Kingbird: last on 3 Oct. (1). Wood Pewee: last on 3 Oct. (8). Horned Lark: 4 Sept. (3); 14 Nov. (5). Cliff Swallow: 11 Sept. (41) on RM. Brown Creeper: 3 Oct. (1). House Wren: 25 Sept. (1) at MC. Catbird: last on 17 Oct. (1). Brown Thrasher: last on 8 Nov. (1). Wood Thrush: last on 5 Oct. (1). Hermit Thrush: 3 Oct. (1). Gray-cheeked Thrush: 3 Oct. (1). Veery: last on 11 Sept. (3). Ruby-crowned Kinglet: 3 Oct. (2); 17 Oct. (1). White-eyed Vireo: last on 3 Oct. (4). Yellow-throated Vireo: last on 3 Oct. (1). Red-eyed Vireo: last on 3 Oct. (4). Warbling Vireo: last on 3 Oct. (1).

Warblers: Black-and-white Warbler: last on 25 Sept. (1). Worm-eating Warbler: last on 20 Sept. (1). Tennessee Warbler: last on 13 Oct. (1). Orange-crowned Warbler: 3 Oct. (2) (ED). Nashville Warbler: 3 Oct. (1) (ED). Yellow Warbler: last on 3 Oct. (5). Magnolia Warbler: 20 Sept. (1); 3 Oct. (2); 4 Oct. (1). Cape May Warbler: first on 11 Sept. (1); last on 4 Oct. (1). Black-throated Blue Warbler: last on 3 Oct. (2). Myrtle Warbler: first on 26 Sept. (1). Black-throated Green Warbler: last on 3 Oct. (5). Blackburnian Warbler: last on 3 Oct. (4). Chestnut-sided Warbler: last on 3 Oct. (2). Bay-breasted Warbler: 20 Sept. (10); 3 Oct. (4). Pine Warbler: 3 Oct. (4). Prairie Warbler: last on 4 Oct. (1). Palm Warbler: first on 11 Sept. (2); last on 23 Oct. (3). Ovenbird: last on 3 Oct. (1). Northern Waterthrush: 25 Sept. (1); 3 Oct. (1). Yellowthroat: last on 3 Oct. (9). Yellow-breasted Chat: last on 3 Oct. (1). Hooded Warbler: last on 3 Oct. (3). Wilson's Warbler: 20 Sept. (1). Redstart: last on 3 Oct. (4).

Orioles - Sparrows: Orchard Oriole: 11 Sept. (1). Rusty Blackbird: 24 Oct. (1); 6 Nov. (3). Scarlet Tanager: last on 20 Sept. (5). Summer Tanager: last on 20 Sept. (1). Rose-breasted Grosbeak: last on 3 Oct. (5). Evening Grosbeak: first on 7 Nov. (15) on RM (FWB). Indigo Bunting: last on 3 Oct. (29). Purple Finch: 17 Oct. (1); 14 Nov. (2); 25 Nov. (1). Pine Siskin: first on 11 Sept. (4) on RM; maximum number (300-500) on 7 Nov. on RM (FWB). Red Crossbill: 11 Sept. (2); 17 Oct. (5); 7 Nov. (3); 14 Nov. (12); 20 Nov. (3); all on RM (FWB). Savannah Sparrow: 3 Oct. (1); 3 Nov. (10). Vesper Sparrow: 17 Oct. (1). Chipping Sparrow: last on 17 Oct. (2). White-crowned Sparrow: first on 12 Oct. (1). White-throated Sparrow: first on 3 Oct. (5). Fox Sparrow: 17 Oct. (1); 7 Nov. (1). Lincoln's Sparrow: 3 Oct. (2) (ED).

Locations: BL—Boone Lake, KWMA—Kettlefoot Wildlife Management Area, LPN—Lake Phillip Nelson, MC—Milligan College, PHL—Patrick Henry Lake, RC—Roan Creek, RM—Roan Mountain, WaL—Watauga Lake, WiL—Wilbur Lake.

Observers: FWB—Fred W. Behrend, JCB—J. C. Browning, JB—Jack Brumit, WC—Wallace Coffey, ED—Ed Davidson, HD—Mrs. Harold Dillenberg, GD—Mrs. George Dove, KHD—Kenneth H. Dubke, LRH—Lee R. Herndon, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City, Tennessee 37601.

BOOK REVIEWS

THE BIRDS OF KENTUCKY by Robert M. Mengel. Monograph No. 3. published by Amer. Ornithologist's Union, 1965, pp. 1-581 — I-XIV, illust. by the author. \$10.00 — This highly informative book of nearly 600 pages describes in much detail all of the 296 species of and 33 subspecies of birds definitely known to have occurred within the state. The first 150 pages gives the history of the development of bird knowledge in Kentucky and of those who have been active in bird study; a physical description of the state; a list of collections examined; a discussion of the changes in bird life through the years, and other pertinent matter of interest.

This section is followed by accounts of each species, under the headings of status, spring, breeding records, distribution, fall and winter, geographical variation, and data on specimens examined. Under *status*, the author gives the degrees of abundance, the seasonal occurrence and the areas most favored. Under *spring*, is given the time of arrival and leaving of species that winter southward and the time of leaving of transients and winter residents. Under *breeding records*, will be found detailed nesting data culled from published records and from the author's own extensive field work. *Breeding distribution*, attempts to show which areas in the state are favored by each species and the ecological complex that is attractive to them. *Fall and winter*, includes occurrence records, migration and the status of each species present during these seasons. Under *geographic variation*, the author discusses the occurrence of the subspecies present (in many cases two or three) based on examination of several thousand study skins. To those not interested in systematics, this section may be skipped over, at least until such time as the reader has developed an appreciation of this phase of bird study. In the last section, data is given on *specimens examined*, which data covers locality, date, sex, name of collector, etc.

Thus it will be seen that information on any species in our adjoining state can be quickly found in condensed form. Where further information is desired on the records given, the source of the information is cited and will be found in a bibliography (literature cited) covering 35 pages. At the end of the annotated list will be found a Hypothetical List of 17 species which for one reason or another do not meet the standards set for inclusions in the main list. This is followed by a list of 30 species recorded in earlier literature but which are even less acceptable and are not included in either of the above lists.

The author's careful study of the literature cited and of the necessary dividing of the wheat from the chaff has been impartially done. The reader is thus given confidence in the work and the information imparted. In the role of compiler, he was handicapped by the earlier appearance of two books which purported to give a history of the birds of the state but which were grievously filled with errors. He also was confronted with the question of what to do about the "tall-tales" of Audubon, written apparently from memory long after his early experiences. Because of this, it became doubly incumbent upon Dr. Mengel that his presentation should be above reproach.

The foundation for this book was produced by him as a thesis for his doctorate at the University of Michigan. His field work in Kentucky had been done sporadically from 1937 to 1947 and then intensively through 1952, in order to gather the substantial material necessary for the present work. During this period he made an excellent collection of study skins from

which to draw conclusions on the presence of species and subspecies. He examined and describes 18 different collections of Kentucky birds, mostly small ones, and incidentally described their condition. Of them he says, "Useful as they have been in many cases for the present purpose, several of the above collections above described provide sad examples of the deterioration to which bird specimens are subject when not assured of adequate continuity of interest and care." This reviewer can appreciate the concern expressed when he contemplates the final disposition of his own comprehensive collection.

The author is heavily indebted to his fellow members of the Kentucky Ornithological Society for having gathered important and usable information and placing it on record in their little quarterly, *THE KENTUCKY WARBLER*. The several editors of this journal have endeavored, but not always with success, to see that published information would come up to a standard acceptable for future use. He likewise profited from Dr. Alexander Wetmore's "Notes on the birds of Kentucky" 1940, giving the results of the U. S. National Museum's expedition into the state, during the course of which more than a thousand study skins were prepared for the national collection.

With so much information made available in the book, it would seem trivial to draw attention to a few apparent omissions. One however I would like to call attention to, it being I suppose an oversight by the author, that he did not relate how Alexander Wilson, when he rode horseback (not walked) from Lexington, Ky., to Nashville in April, 1910, succeeded in discovering, painting and naming the Kentucky Warbler; truly a "hi-lite" in the state's ornithological history.

The book is illustrated with four color plates of the author's paintings of birds at their nests and a number of well executed pen-and-ink sketches. He is one of America's best bird artists and we are left with a wish that more of his pictures could have been afforded. Forty-four diagrams and small distributional maps provide further condensed information. All in all, the book represents a stupendous amount of time, industry and talent, coupled with the author's ability to present his findings in concise, clearcut language, reverting to technical usage only when this is necessary. To students of Tennessee bird life, it should be the most useful reference book available and acquisition of a copy is heartily recommended.—ALBERT F. GANIER, Nashville 12.

MEMO.—"The Birds of Kentucky" is available from Burt L. Monroe, Treasurer, A. O. U., Anchorage, Ky. The price is \$10.00 postpaid or \$8.00 to members of the American Ornithologist's Union. Incidentally, membership in the A. O. U. is available to all who are sincerely interested in birds and application may be made to the Treasurer. The dues are \$5.00 annually and this includes *THE AUK*, the quarterly journal, of which Robert Mengel is the present editor.

THE APPALACHIANS — by Maurice Brooks. Illustrated with photographs and line drawings by Lois and Louis Darling. Houghton Mifflin Company, Boston. The Riverside Press, Cambridge. 1965. 346 pp. \$6.95.

This book should be of particular interest to many of our members since it is home for some of us. Many of our readers know certain portions of the area intimately, however, the author draws our attention to many fea-

tures which we normally overlook or we are not aware of their presence.

In the first chapter the author credits one of our own local chapter members of TOS, an ardent, all weather birder and hiking enthusiast, Fred W. Behrend, whose persistent efforts led to the finding of Snow Buntings wintering on the balds in the vicinity of Roan Mountain. Thus is shown the relationship of a southern highland to a northern latitude of lower elevation. This situation is reflected in other avian species, such as the Winter Wren, Golden-crowned Kinglet and Canada Warbler breeding on or near the summit of the higher peaks and then being absent for several hundred miles to the north until a favorable environment occurs.

The author vividly describes a wide variety of situations from the islands in the Gulf of St. Lawrence to Georgia and Alabama. Both flora and fauna have been presented in a manner which indicates intimate familiarity with even the most unusual of varieties of both. This information is presented in nontechnical terms so that the layman may understand and appreciate the uniqueness of phenomena of a variety of the region.

Chapters are devoted to hawk migrations, the woods warblers, trails and parkways, alpine summits, mountain heaths, ferns, salamanders, cultures and crafts.

Having lived within the region all his life, the author has traveled over many of the roads and trails leading to some of the more remote areas and scenic spots of the region. Some of the more unusual features are described in detail, such as the rhododendron gardens on top of Roan Mountain, the azalea balds in the Smokies, mountain laurel and many other flowering trees and shrubs. The fall display of colored foliage of the hardwood trees is unexcelled.

The book is heartily recommended to anyone who is interested in nature and the out of doors.—LEE R. HERNDON.

ROUND TABLE NOTES

LONG-EARED OWLS, COLUMBIA.—On the morning of our Christmas Count, December 30, 1965, George Mayfield, Jr., Delton Porter of Lewisburg, and Radford Smith of Murfreesboro were passing thru a thick stand of 30 foot Pine trees on the Halliday farm 3 miles southwest of Columbia looking for Ruby-crowned Kinglets, which were found, when to their surprise appeared two owls with long ears similar to the Great Horned Owl except that all 3 observers immediately were aware that they were smaller and thinner than any Great-Horned Owl ever observed. The thought immediately crossed my mind that here was the Long-eared Owl frequently seen in the Peterson's Guide, but never before seen by any of these observers. All 3 observers were aware that they could not be Great Horned Owls and indeed these owls sat close to the trunk of the pine tree until we were within about 30 feet, quite in the fashion described in the Peterson's Guide Book. We were surprised to learn that these birds winter from our area south to the Gulf of Mexico, since we had never before observed them. Perhaps the gradually developing habit of planting large stands of Loblolly Pines in the area accounts for their presence here. The birds were observed on the following day by the Grays and Fuquas and we hope they are planning to spend the winter here. The woods is rather remote and their presence is not being announced to non-birders for fear of trophy hunters.

GEORGE R. MAYFIELD, JR.

PURPLE MARTIN ROOST ON COLUMBIA SQUARE.—On or about the first of August a large number of Purple Martins were first observed circling over the Public Square in the late evening in Columbia, Tennessee. In the first week of August, this was checked by several of the local birders who found that they were actually roosting in the trees around the square much as the Starlings do later in the year. In fact a lesser number of Starlings, perhaps 100, roosted with the Martins. At least 1000 Martins persisted until the first of September and several hundred were observed as late as September 8.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia, Tenn.

FULVOUS TREE DUCKS BELOW NORRIS DAM, ANDERSON COUNTY.—On 29 January, 1965, a flock of Fulvous Tree Ducks (*Dendrocygna bicolor*) spent most of the day resting in a field below Norris Dam.

At 2:00 p.m. TVA Safety Officer Lyle Higdon called to see if I would come and identify a flock of ducks sleeping in one of the fields below the dam. He said the ducks had been there since morning and they were unlike any duck he had ever seen. I went by the TVA Forestry Office and persuaded Fred Emerson, Gordon Hall, and Ben Jaco — all biologists and birders — to go with me.

When we arrived at the forks where the lower road goes to the powerhouse, we saw a huddle of brownish-colored ducks about 100 feet from the road. There were 31 of them, and they appeared so exhausted that neither auto traffic nor birdwatchers made them move a feather. For 30 minutes we studied them with our glasses from the road and concluded they were Fulvous Tree Ducks. Then the men crawled under the fence and slowly moved within 20 feet of the birds, where they stood for another 30 minutes comparing them with pictures and descriptions in my copy of Kortright's "The Ducks, Geese and Swans of North America." None of the three men had seen a Fulvous Tree Duck before, and they were determined to make certain of their identification. Finally, they deliberately forced the birds to fly, and everyone was satisfied they were Fulvous Tree Ducks. The ducks circled low and set back down in a huddle in the next field. A little later in the afternoon they took to the air and disappeared over the dam. Despite some diligent searching they were not seen again.

Unlike any other duck that can normally be expected in east Tennessee, the Fulvous Tree Duck has long legs and stands partially upright. Its breast and most of its neck and head are buffy brown. Its back has a dark brown pattern, and a cream-colored streak runs along its side. In flight its blue feet extend beyond its tail. Kortright's book has excellent colored pictures for identification.

The Fulvous Tree Duck nests in marshy areas in Mexico, Southern California, and near the Texas and Louisiana coasts. After the nesting season some of these ducks wander along the Gulf Coast, and a few occasionally show up on the Atlantic Coast. A few years ago Mrs. Maxie Swindell and I saw a pair of them at a distance on Cove Lake in Campbell County, immediately after a disastrous hurricane on the Louisiana coast. Cove Lake is about 15 miles northwest of Norris Dam. To my knowledge these are the only records of this duck in Tennessee.

MRS. FRANCES OLSON, 120 West Norris Road, Norris, Tennessee.

NEW MEMBERS 1965

ARNETT, MRS. LYNN, Lake Road, Dyersburg	38024
ARNOLD, MRS. GUY, 531 Lawrence Ave., Bristol, Va.	24201
ARP, MRS. THELMA B., 3401 Kesterwood Rd., Knoxville	37919
BELL, MR./MRS. WILLIAM F., JR., 732 Templeton Dr., Nashville	37215
BOWERS, MRS. E. C., JR., Box 949, Tupelo, Miss.	38802
BRIGHAM, MRS. NIP, 307 Williams Drive, Dyersburg	38024
BRITT, MRS. B. E., 6260 Hillsboro Rd., Nashville	37215
BROWMAN, MISS BETTY, 200 Scenic Highway, Lookout Mt.	37350
BROWN, MRS. HEDY L., 73 Norris Rd., Norris	37828
BROYLES, MR./MRS. LEONARD, 911 Sterling Ave., Maryville	37801
BRYSON, MRS. HOYTE, Woodbury	37190
BUNTING, MR./MRS. KENNETH, 321 Greenway, Nashville	37205
BURRUS, MRS. RALPH, Lake Drive, Tiptonville	38257
BUTLER, TOM, Route 2, Box 216, Plano, Texas	75074
CALDWELL, MRS. JOSEPH A., Box 35, Blountville	37617
CARSON, MISS LOUISE, Telford	37690
COBB, MRS. WILLIAM S., Clifton	37325
CORNETT, MR./MRS. B.H., Rt 2 Bx 98A Princeton, W Va.	24740
CRITCHLOW, ED, Union City	38261
DARLINGTON, JULIAN T., 291 Kenilworth Place, Memphis	38112
DeLIME, MR/MRS. JOHN A., P.O. Bx 295 Tiptonville	38257
DILLENBECK, MRS. HAROLD L., 1314 Seminole Dr.	37604
DOUGLAS, DR. LARRY E., 430 E. 76th St. Apt 1-N New York, NY	
DUNKEL, MR./MRS. RALPH, Sherwood Lane, Cookeville	38501
DURRETT, MR./MRS. J.M., Deerfield Acres, Bristol	37622
EDWARDS, MISS LANEAL, 1004 E. Lytle St., Murfreesboro	37130
ELLIS, DANNY, No. 1 Hedgewood Dr., Knoxville	37918
PINUCANE, JOE, 1434 Watauga St., Kingsport	37664
FREBURG, MR./MRS. CHARLES, 4105 Tuckahoe Rd., Memphis	38117
GALBRAITH, MISS ELIZABETH, 116 Shallowford Rd., Chattahoochee	37404
GALLAGHER, MR./MRS. W. F., Rt 2 Bx 33, Powell	37849
GANDY, B. E., 261 Woody Drive, Jackson, Miss.	39212
GANT, MRS. J. NORWOOD, 884 Robertson Academy Rd., Nashville	37220
GARNER, MR/MRS. BYRON O., Union City	38261
GREENFIELD, STEVE, 1808 Ordway, Nashville	37206
GROTE, MISS MARY ELEANOR, 407 Leske Ave., Nashville	37205
HAMILTON, MRS. M.O., Obion	38240
HAYNES, MRS. ALF H., SR., Tiptonville.	38257
HOYLE, MISS SUSAN, 6805 Glenbrook Circle, Knoxville	37919
HUMMEL, MRS. HARRY H., 1809 S. Third St., Louisville 8, Ky.	
INGALLS, LAMONT W., 416 Campbell Rd., Madison,	37115
JACKSON, MR./MRS. JOHN R., 704 Summerly Dr., Nashville	37209
JAMES, MRS. ELEANOR B., 2150 Washington St., Memphis	38104
JAMES, MRS. LURA, 5329 Briercliff N.E., Knoxville.	37918
JOLLY, RICHARD, 4006 Vailwood Dr., Nashville	37215
JONES, WILLIAM, Box 142A, TTU., Cookeville	38501
KING, PAUL H., Obion	38240
LACY, MISS LAURA, 115 Belsire Dr., Jackson, Miss.	39208
LEATHERS, MISS JUDITH, 104 West Lake Dr., Dickson	37055
LEWIS, JAMES C., Fish & Game Div., Cordell Hull Bldg, Nashville	
LYNACOD, MR./MRS. WILLIAM, 541 Gates St., Tiptonville	38257
LUTHER, MRS. DOROTHY, 4515 Mercy Ln, Apt 239 Indianapolis, Ind	46205
McCLELLAND, MRS. CHARLES W., Glenwood Rd., Bristol	37622
McCRARY, MRS. W. L., Box 57, Woodbury	37190
McGONAN, DR./MRS. ROBERT, Rt. 3 Box 86, Collierville	38017
McMILLAN, MRS. ROBERT D., 4511 Harpeth Drive, Nashville	37215
MARKHAM, MRS. FRANK, Tiptonville	38257
MARTIN, MR./MRS. S. G., JR., Tiptonville	38257
MARTIN, WILLIAM T., JR., Belt Rd., RFD 3, Knoxville	37920
MASCARI, MRS. SALVA J., Route 3, Moscow	38057
MICHALS, DR./MRS. HERBERT J., 3113 Gaylement Dr., Kingsport	37661
MILLER, MR./MRS. MAX, Sullins College, Bristol, Va.	24201
MILLER, MR./MRS. ROGER R., Monument Ave., Greenville	37743
MILLIARD, MRS. SPENCER, 629 Sixth St., Union City	38261
MOORE, FRED, Lake Road, Dyersburg	38024
MYNATT, MRS. E. W., RFD 13, Bell Rd., Knoxville	37918
NORRIS, DR./MRS. RAYMOND C., 4021 Sunnybrook Dr., Nashville	37205
NUNNALLY, MISS LOUISE, 255 Conner Dr., NE, Knoxville	37918
O'NEIL, J. DUAY, RFD 1, Box 328, Newport	37821
OTTENFELD, MR./MRS. C. T., Brookwood, Rt. 5, Bristol	37622

THE PRESIDENT'S MESSAGE

Having sent "Greetings" to each of you by way of a personal **Newsletter** to be read in the Chapters, I shall take this opportunity to urge you to make plans now to attend our State meeting, 6, 7, 8 May, at Cumberland Mountain State Park. The Knoxville Chapter is looking forward to hosting our State Society at this beautiful park. We remember most pleasantly our last State Meeting at Cumberland Mountain Park when the Nashville Chapter was our host. The close-by Catoosa Wildlife Refuge also offers exciting opportunities for field observations. It was here, at the aforementioned meeting, many of us observed for the first time the Red-cockaded Woodpecker at its nesting site. By having the meeting a little more centrally located, the Knoxville Chapter hopes to encourage attendance of all our members in the State. Let me again suggest, particularly if you wish to stay in the Park, to make your reservations early.

A GOLD STAR goes to the Lebanon chapter for getting all their 1966 dues paid to our Treasurer early in November 1965. I hope all the local Treasurers will have all chapter dues to Mr. Wilmeth by the last of January, as this will enable him to give T. O. S. a more complete financial picture in his annual report. Delinquent members will not be entitled to receive the June 1966 issue of THE MIGRANT.

All local chapters which are guided by the state constitution are reminded that elections should be held so that newly elected officers can take office on 1 May. (Article V, Section I).

Any and every member who agrees to accept an office for the State organization should be willing to work for its improvement. We need working members on the Board, including all Directors from the local Chapters. There is much to be done and each will be given a job.

Best wishes to each of you for the year 1966.

KAY GARLINGHOUSE, 2012 Cedar Drive, Knoxville 37918.

1965 TABLE OF CONTENTS — VOLUME 36

March, No. 1	Page
Annual Hawk Count 1964, by Thomas W. Finucane	1
THE SEASON: Columbia, 7; Nashville, 8; Cookeville, 9; Chattanooga, 9; Knoxville, 10; Greeneville, 10; Bristol, 11 and Elizabethton, 12.	
ROUND TABLE NOTES: Sandhill Cranes in Cumberland County, 13; Vermillion Flycatchers in Knox County, 14; Recent Observations on Saw-whet Owl in GSMNP, 15; Great Horned Owl Hunting in Full Daylight, 17; Find Yourself a Small Lake, 19; Lawrence's Warbler at Columbia, 20; Operation Bluebird, 20; Long-eared Owl at Chattanooga, 21; An Erythritic Song Sparrow, 21; Field Trip to Duck River Sanctuary Near Waverly, 21.	
BOOK REVIEWS:	
A New Dictionary of Birds, by Sir Landsborough Thomson	22
Birds Over America, by Roger Tory Peterson	22
Argen The Gull, by Franklin Russell	23
It's For the Birds, by S. Vance Cogley	24
Back Issues of THE MIGRANT	24
June, No. 2	
Ornithological Exploration and Collection in Tennessee, by Albert F. Ganier	26

Early Reminiscences, by Dixon Merritt	29
A Brief History of TOS Chapters, by Mary Davant	30
A Review of Tennessee Christmas Counts, by Laurence O. Trabue	36
Photographs of TOS Founders and others	38
Contributions of THE MIGRANT to TOS, by Lee R. Herndon	44
Our Bird Study in the Future, by James T. Tanner	46
TOS Annual Meeting 1965, by Marguerite McKinney	48
ROUND TABLE NOTES: Fulvous Tree Ducks at Chattanooga, 52; Snow Bunting on Hump Mountain, 52; Whip-poor-will Foray, 53; Common Gallinule in Columbia, 54.	
BOOK REVIEW: The Bird Watcher's America, by Olin Sewall Pettingill, Jr.	54
About the Season, by Wallace Coffey	54
To Our Readers, Greetings	55
Key to Group Photograph, Frontispiece	55
September, No. 3	
Fall Mist-Netting in the Smokies, by Tom Savage	56
ROUND TABLE NOTES: Swallow-tailed Kite in Franklin Co., Tenn., 58; Red-cockaded Woodpecker Nesting in the Great Smoky Mountains National Park, 59; Scissor-tailed Flycatcher at Phillipy, 59; Song Sparrows at Manchester, 60; Late Bobolinks in Cades Cove, 60; Brown Thrasher Found Nesting on the Ground, 60; Natural Bridge, Tennessee, Revisited, 61.	
THE SEASON: (Spring) Nashville, 62; Chattanooga, 62; Greeneville, 62; Elizabethton, 65; Bristol, 66. (Summer) Nashville, 67; Chat- tanooga, 68; Greeneville, 68; Elizabethton, 69; Bristol, 69.	
THE 1965 SPRING FIELD DAYS: Memphis-Reelfoot Lake, 70; Co- lumbia, 70; Nashville, 70; Cookeville, 70; Chattanooga, 70; Cross- ville, 75; Knoxville, 75; Elizabethton, 75; Bristol, 75.	
December, No. 4	
Green Herons Nest at Basin Springs — by Larry E. Douglas, Michael Birely, Katherine A. Goodpasture	76
Autumn 1965 TV Tower Casualties, by Amelia R. Laskey	80
Casualties at Ski Resort, Gatlinburg, by Thomas Savage	81
The 1965 Christmas Season Bird Counts, by TOS Members and Guests ...	83
Memphis, 83; Reelfoot Lake, 83; Dyersburg, 84; Savannah, 84; Co- lumbia, 84; Nashville, 84; Old Hickory Lake, 85; Lebanon, 85; Cookeville, 85; Chattanooga, 85; Knoxville, 85; Great Smoky Mountains National Park, 85; Cosby, 86; Greeneville, 86; Big Bald Mountain, 91; Kingsport, 91; Bristol, 91; Elizabethton, 91; Roan Mountain, 91.	
Spring Counts: Greeneville, 92; Eastern Smokies, 92.	
THE SEASON: Memphis, 93; Nashville, 93; Cookeville, 94; Chatta- nooga, 95; Knoxville, 96; Greeneville, 97; Bristol, 98; Elizabetht- on, 99.	
BOOK REVIEWS: The Birds of Kentucky, by Robert M. Mengel	101
The Appalachians, by Maurice Brooks	102
ROUND TABLE NOTES: Long-eared Owls, Columbia, 103; Purple Martin Roost on Columbia Square, 104; Fulvous Tree Ducks Be- low Norris Dam; Anderson County, 104.	
New Members - 1965	105
The President's Message	106
Table of Contents	106

BIRD BOOKS

We carry in our very complete book store a full line of books about birds, wild flowers, nature study and kindred subjects.

These include the popular Peterson and Audubon field guides. We can obtain for you promptly, any nature or natural science book now in print.

All birders are cordially invited to visit our store or to write us for information about bird or nature books.

COKESBURY

417 Church St., Nashville, Tenn.

Headquarters for

BIRD-ATTRACTING DEVICES

BIRD HOUSES — FEEDERS — FOUNTAINS

SUNFLOWER SEED

SCARLETT'S MIXED BIRD SEED

Hummingbird Feeders	\$1.96
Audubon Bird Calls	\$1.50
A Field Guide To The Birds (Peterson)	\$4.95
BIRDS, A Guide To The Most Familiar Birds	\$1.00

PETS OF ALL KINDS AND BOOKS ON THEIR CARE

TROPICAL FISH AND AQUARIUMS

JONES PET SHOP

1812 21st Ave., So., Nashville (12) Tenn. — Phone CYpress 1-3589

DURY'S

FIELD GLASSES

STERO PRISM BINOCULARS

STERO CAMERAS

KODAKS

CINE KODAKS

MOTION PICTURE EQUIPMENT

ARTIST'S SUPPLIES

DRAWING MATERIALS

EXPERT DEVELOPING, PRINTING

ENLARGING

Write for New Photographic Catalogue

GEO. C. DURY CO.

426 UNION STREET — NASHVILLE, TENN.

and

GREEN HILLS VILLAGE