

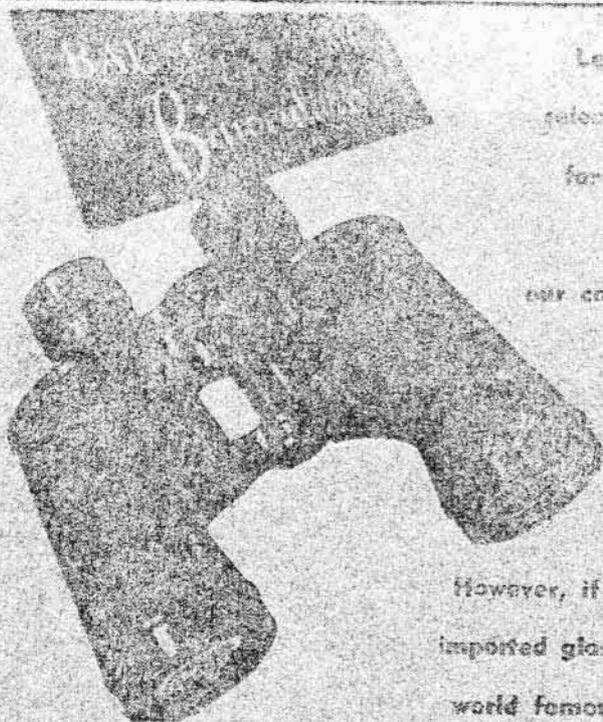
THE MIGRANT

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MORTALITY OF NIGHT MIGRANTS AT NASHVILLE T V TOWERS, 1963

By AMELIA R. LASKEY

In 1963 as in previous years during the autumn migration, daily visits were made to television towers in Nashville.

The total number of casualties collected for this season from 3 Sept. through 10 Nov. was 630 individuals of 62 species, as follows: WSM, 321 of 39 species; WSIX, 292 of 55 species; WLAC (one collection), 17 of 7 species.

At WSM, Katherine A. Goodpasture alternated with me on early morning visits from 3 Sept. through 7 Nov., excepting 28 Sept. when H. E. Parmer and H. C. Monk made the collection which proved to be the largest for a single night in 27-28 Sept., 1963, 136 birds of 21 species. At WSIX my first visit occurred 21 Aug. when the overcast of the previous day with north wind could have caused casualties if migration had been heavy, but none was found. Regular visits to WSIX began 13 Sept. after rain and north wind on the previous day and night. Clara W. Fentress and I collected 8 casualties there and I found one at WSM, the first found there for the season, although one of the outdoor employes told me that he found 4 little yellow birds in August. The daily visits at WSIX continued through 10 Nov. with help from Mrs. Fentress.

A. F. Ganier made one collection at WLAC TV tower on Brick Church Pike in North Nashville on 15 Sept. This tower (including antenna) is 1179 ft. high, 870 ft. above sea level.

Autumn weather was unusually clear and dry in 1963 which restricted casualties to a number which is now considered a minimum. In Sept., the largest kills occurred on four nights: 13-14 (WSIX 74, WSM 14); 14-15 (WSIX 20, WSM 22, WLAC 17); 26-27 (WSIX 5, WSM 91); 27-28 (WSIX 29, WSM 136). These kills coincided with precipitation, overcast, north winds in the tower areas excepting that of 14-15 Sept. when fair weather and southerly winds prevailed that morning at the towers, but the U. S. Weather Bureau reported a trace of rain at Berry Field.

For the entire month of Oct. we had unusually mild clear weather (mean temperature 4° above average) and no rain in the area of either tower. However on the night of 27-28 a shower occurred in town and the U. S. Weather Bureau reported north wind and a trace of rain at Berry Field. That night 24 birds were killed at WSIX and one at WSM, the most for any night in Oct. 1963.

The kills of 14-15 Sept. and 27-28 Oct. with fine weather in the tower area, verify the statement made in my previous reports that casualties in numbers may occur when clear weather prevails in the environs of the towers. However when conditions of weather immediately preceding this fair weather and conditions in nearby areas are investigated, this informa-

tion has always revealed that overcast and precipitation have been involved. It also seems probable that migration must have been heavy.

The collected casualties have contributed to several types of ornithological studies. All specimens in usable condition were utilized in taxonomic and biological projects. Even after dissection, they were still usable as food for crippled hawks and owls.

Mrs. Goodpasture has published a valuable article on age, sex, wing length and plumage based on the 1962 collections (1963. BIRD-BANDING 34(4): 191-199) and a paper appearing in this issue of THE MIGRANT based on the 1963 collections.

A number of early and late migration dates were obtained for the season, some of them as new extremes: Virginia Rail (WSM) 20 Oct.; House Wren (WSIX) 19 Sept.; Philadelphia Vireo (WSM) 15 Sept.; Northern Waterthrush (WSIX) 28 Oct.; Yellowthroat (WSIX) 28 Oct.; Indigo Bunting (WSIX) 28 Oct.; Swamp Sparrow (WSM) two, 28 Sept.

Thrush collections were concentrated at WSIX; 38 were gathered from 12-13 through 28-29 Sept. and only 3 (Veery 12-13 and 13-14) at WSM. The peak of 18 at WSIX occurred on 13-14 Sept. when the following were found: Wood Thrush 1, Swainson's 11, Gray-cheeked 3, Veery 3.

In the vireo and warbler families, WSM usually exceeded WSIX in numbers, especially in Red-eyed Vireo, Philadelphia Vireo, Tennessee, Bay-breasted Warblers, Ovenbird, Redstart, but for Northern Waterthrush, the ratio was reversed with 25 at WSIX (13 on 13-14 Sept.) and only 3 at WSM. One Tennessee Warbler had an olive-gray breast, another a typical specimen similar to the grayer-breasted individual of 1961.

The complete list of casualties collected from the three towers in 1963 follows, with the first number indicating WSIX, the second WSM with an asterisk indicating the species was collected only at WSM, third figure indicates a WLAC casualty.

Pied-billed Grebe, 1; Green Heron, 1; American Bittern, 1; Virginia Rail, *1; Sora, 5, 2; American Coot, 1, 2; Mourning Dove, 1, 1; Yellow-billed Cuckoo, 5, 6; Black-billed Cuckoo, 3, 3; Flicker, 2; Red-headed Woodpecker, *1; Yellow-bellied Flycatcher, 1; Wood Pewee, *1; Red-breasted Nuthatch, *1; Brown Creeper, 1, 1; House Wren, 2; Long-billed Marsh Wren, 1, 1; Short-billed Marsh Wren, *3; Catbird, 7, 2; Brown Thrasher, 1; Wood Thrush, 2; Hermit Thrush, 1; Swainson's Thrush, 21; Gray-cheeked Thrush, 7; Veery, 7, 3; Ruby-crowned Kinglet, *1; Yellow-throated Vireo, 1; Red-eyed Vireo, 14, 33, 8; Philadelphia Vireo, 1, 11; Black-and-white Warbler, 4, 10; Worm-eating Warbler, 1, 1; Blue-winged Warbler, 1; Tennessee Warbler, 31, 60; Nashville Warbler, 1; Yellow Warbler, 2; Magnolia Warbler, 20, 22; Myrtle Warbler, 2; Black-throated Green Warbler, 3, 3; Blackburnian Warbler, 8, 6; Chestnut-sided Warbler, 6, 14, 1; Bay-breasted Warbler, 3, 23; Palm Warbler, 8, 14; Ovenbird, 21, 38, 3; Northern Waterthrush, 25, 3; Kentucky Warbler, 6, 2, 1; Mourning Warbler, 1, 1; Yellowthroat, 9, 10; Yellow-breasted Chat, 4, 5; Wilson's Warbler, 1; Canada Warbler, 4, *0, 2; American Redstart, 6, 16, 1; Bobolink, 2, 1; Redwinged Blackbird, 3; Baltimore Oriole, 2, 1, 1; Rose-breasted Grosbeak, *3; Indigo Bunting, 4, 5; Savannah Sparrow, 1; Slate-colored Junco, 1, 1; Field Sparrow, 2; White-throated Sparrow, 5; Swamp Sparrow, 11, 5; Song Sparrow, 2; and unidentifiable because of condition, 5, 4.

At WSM, 17-18 Sept. Red Bat; 21-22 Sept. Hoary Bat.

1521 Graybar Lane, Nashville.

AGE AND SEX DETERMINATIONS OF TOWER CASUALTIES, NASHVILLE, 1963

By KATHERINE A. GOODPASTURE

Avian casualties at television towers during night migration represent, in many instances, fair samples of nocturnal migrating flights and can give us information helpful in our attempts at analyzing patterns of migration. This report summarizes age and sex determinations of 385 such casualties collected during September and October, 1963 at Nashville, Tennessee.

In a current article Amelia R. Laskey gives a detailed account of the 1963 collection of dead birds, their specific identification and the accompanying weather conditions⁽¹⁾. Mrs. Laskey deposited the birds as they were collected in deep refrigeration and very kindly made them available to me for laboratory examination over a period of two months.

Four hundred fifty-three of the casualties were examined for age and sex by methods previously described in some detail⁽²⁾. For determination of age skin was stripped from the skull and examination made for the stippled, opaque appearance of a completely ossified skull or the translucence of an immature one showing the pinkish color of the brain beneath. This is the application of a demonstration by Nero that avian skulls mature gradually and that immaturity can be judged for some months after hatching on the basis of incomplete ossification⁽³⁾. To determine sex the abdomen was opened on the left side, viscera were pushed aside so as to expose the adrenals and gonads at the anterior pole of the kidneys. Sex was always determined by use of a dissecting microscope using 20-60x magnification. Wing measurements and notes on plumage was also recorded.

Only the 15 species yielding as many as 10 individual records are reported here. Birds of a single species collected on 2 or 3 consecutive days have been considered to represent a single movement. Likewise birds from different towers collected on the same day are treated as a sample of the same flight.

Table I below summarizes data on age and sex of these 15 species. A completely ossified skull has been interpreted to indicate an adult (A); conversely the observation of an incompletely ossified skull has been interpreted to indicate immaturity (I). The letter M indicates male and F female. Individuals in which determination of sex failed are labeled (U).

(See Table I next page)

Swainson's Thrush (*Hylocichla ustulata*). All 12 Swainson's Thrushes picked up 13 and 14 Sept. had matured skulls with a ratio of 2 females to 1 male. It is of interest to add that all 8 Veeries (*Hylocichla fuscescens*) (7M, 1F) collected on the same days also had matured skulls. Among 30 thrushes of 5 species the first immature was found 22 Sept. and only 4 immatures were recorded for the season. The mid-September flight of thrushes was, it would seem, preponderantly adult.

TABLE I
Age and Sex Determinations of Selected Species

Species	Total	AM	IM	AF	IF	AU	IU
Swainson's Thrush*	14	4	....	9	1	....	....
Red-eyed Vireo	44	9	14	10	11	....	....
Philadelphia Vireo	12	2	3	5	1	1	....
Black-and-white Warb.	11	2	3	5	1	....	....
Tennessee Warbler	79	17	8	20	22	3	9
Magnolia Warbler	33	10	5	12	4	1	1
Blackburnian Warbler	10	....	2	5	3	....	....
Chestnut-sided Warbler	18	6	3	6	1	1	1
Bay-breasted Warbler	24	5	4	6	4	2	3
Palm Warbler	20	1	4	3	9	1	2
Ovenbird	50	7	6	15	15	5	2
Northern Waterthrush	19	6	1	4	4	2	2
Yellowthroat	16	1	6	2	6	....	1
Amer. Redstart	20	9	1	8	2	....	....
Swamp Sparrow	15	2	4	1	6	1	1

*Scientific names appear in the text.

Red-eyed Vireo (*Vireo olivaceus*). A total of 44 were almost equal male and female with slightly more immatures than adults. Of 19 collected 14, 15 Sept., 13 were male, 5 female; 1 was of undetermined sex. They were 2 adults to 1 immature.

Two weeks later, 9/28, a sample of 14 showed a strong reversal of age ratio as well as a weaker reversal of sex ratio:

	age ratio	sex ratio
14 Sept. — 19	— 2.1 A : 1.0 I	— 2.6 M : 1.0 F
28 Sept. — 14	— 1.0 A : 6.0 I	— 1.0 M : 1.8 F

Fourteen and 19 individuals are small samples but the mid-September sample was predominantly male and mature, the later one was chiefly female and immature.

Philadelphia Vireo (*Vireo philadelphicus*). A total of 12 collected on scattered dates gave twice as many adults as immatures and an almost equal distribution of sexes.

Black-and-white Warbler (*Mniotilta varia*). Eleven were 7 A, 4 I, 5 M, and 6 F. A sample of 10 collected 27, 28 Sept. were 1 A M, 3 I M, with 5 A F and 1 I F. A flight that was 50% adult female accompanied by males 3:1 immature cannot be cited as significant on this small sample but such intraspecific patterns are rarely recognized.

Tennessee Warbler (*Vermivora peregrina*). This species provided the highest number of a single kind examined. They proved to be 40 A, 39 I; 25 M, 42 F, with 12 of undetermined sex. A mid-September sample of 15 (14, 15 Sept.) gave over twice as many females as males (11 F : 4 M); its age distribution was about equal (7 A : 8 I). Two weeks later (27, 28 Sept.) with a sample of 42 the sex ratio had not changed significantly (26 F : 16 M) and the age ratio was (24 A : 18 I). These figures do not indicate appreciable change in either age or sex ratios during this 14-day interval.

Magnolia Warbler (*Dendroica Magnolia*). Of 33 Magnolias examined, 26 collected 27, 28, 30 Sept. are treated as a sample of one flight. With 19 A and 7 I one may say the flight was almost 3 to 1 adult. The sex ratio was about equal (13 M, 12 F, 1 U). By recombination 9 A M and 9 A F with 4 I M and 3 I F show virtually equal distribution of all factors except a heavy preponderance of adults. One may ask whether this flight was early, late or median and whether this age ratio might change within an orderly framework.

Blackburnian Warbler (*Dendroica fusca*). Ten of this species were 5 A, 5 I, and 2 M, 7 F, 1 U. Six birds collected 14, 15 Sept. (1 I M, 4 A F, 1 IU) and three 28 Sept. (1 A M, 1 A F, 1 IU) are too few for analysis.

Chestnut-sided Warbler (*Dendroica pensylvanica*). A total of 18 were 13 A, 5 I; 9 M, 7 F and 2 U. Eleven on 27, 28 Sept. were 10 A, 1 I; 4 M and 7 F. This flight might have been chiefly adult and 60% female.

Bay-breasted Warbler (*Dendroica castanea*). Twenty-three collected 27, 28, 30 Sept. were 5 A M, 4 I M, 6 A F, 4 I F, 1 AU, 3 IU indicating an almost equal distribution of age and sex.

Palm Warbler (*Dendroica palmarum*). Of 20 Palms examined, 17 collected 27, 28, 29 Sept. were 4 I M, 9 I F, 2 A F, 1 AU, 1 IU. This indicates a possible late September flight of Palms predominantly immature and female.

Ovenbird (*Seiurus aurocapillus*). Fifty Ovenbirds approached an equal age distribution with twice as many females as males. Thirteen fell 13, 14, 15, Sept.; 24 fell 2 weeks later, 28, 29 Sept. The age distribution of each sample was roughly 1:1. The sex ratio for mid-September was 1M, 11 F, 1 U; for late September it was 3 M, 14 F, 2 U. This increasing proportion of males is of interest but an isolated observation cannot be used to generalize on such a trend during late September.

Northern Waterthrush (*Seiurus noveboracensis*). Of the 14 that fell 14, 15 Sept. the 9 adults were 5 M, 3 F, 1 U; the 5 immatures were 1 M, 3 F, 1 U. These figures indicate little except an equal distribution of sexes.

Yellowthroat (*Geothlypis trichas*). Nine collected 27, 28 Sept. were 1 A M, 2 A F, 3 I M, 3 I F. As with other species one would inquire whether a 66% immature flight of Yellowthroats in late September has differential significance.

American Redstart (*Setophaga ruticilla*). Twenty Redstarts proved to be 10 M and 10 F; 17 A and 3 I. Seventeen collected 27, 28 Sept. were predominantly adult (14 A, 3 I) and almost of equal sex distribution (8 M, 9 F). Again one wonders if this differential pattern is related systematically to Redstart migration.

Swamp Sparrow (*Melospiza georgiana*). Eight Swamp Sparrows collected 10/28, 30 were 2 A M, 3 I M, 2 I F, 1 AU. Seven collected on earlier scattered dates were too few to interpret.

DISCUSSION

No attempt at a refined statistical analysis of the data presented above has been made because the small numbers give weak support for any interpretation. However, Tordoff and Mengel consider samples precipitated as tower casualties to be as near a random sample of a single species in one migratory flight as we can, at the present time, make available for study. Such samples are well adapted to intraspecific age and sex analyses which in turn can reasonably be considered to represent the flights from which they fell.

Most of the birds reported on in this paper fell on two dates, one the middle of September, the other at the end of the month. In 3 instances birds of a single species collected on both dates allowed us to look for change in the ratios of age and sex.

The most interesting mid-September sample was that of the thrushes which proved to be almost completely adult and very largely female. The mid-September sample of Red-eyed Vireos showed more adults and more males; in late September the species showed more immatures and more females. The combined characters of adult males in the first instance and immature females in the second accounted for 50% of the totals on the respective dates. From mid-September to the end of the month Ovenbirds showed a decrease in the proportion of females; for the same period age and sex ratios of Tennessees remained about the same.

For late September the samples of Black-and-white, Magnolia, Chestnut-sided Warblers and Redstarts were predominantly adult. On the same dates samples of Palm Warblers and Yellowthroats were predominantly immature; those of Tennessees, Bay-breasteds and Ovenbirds were about equal in age distribution. The late September samples of Black-and-whites and Palms were largely female.

For 3 species comparisons of 1963 figures may be made with figures obtained from similar examinations in 1962. In 1962 a 6 Sept. sample of 21 Black-and-white Warblers was 100% immature; in 1963 of 10 collected 27, 28 Sept. 33% were immature. Twenty-one Magnolias collected 6 Sept. 1962 were also 100% immature; 26 Magnolias collected 27, 28, 30 Sept. 1963 were 26.9% immature. In 1962 18 Red-eyed Vireos collected 6 Oct. were 88% immature; a sample of 14 collected 28, 29 Sept. 1963 was 85% immature. The first sample of Vireos was 55% I F, the second was 50% I F.

A particular flight of migrating birds is so closely related to changing weather conditions that single dates have little significance except as related to weather. Random screening by a "meteorologically determined accident" does not occur at regular or at controlled intervals so one must piece together fragments of information like parts of a puzzle. Accumulated data may show that intraspecific flight patterns follow broad calendar dates only as closely as a chain of weather events follow calendars and our problem may be that of finding the systematic way of interlocking these three patterns.

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THE SEASON

MEMPHIS. — A Common Loon was seen 10 Nov. (BCs) on Porter Lake, while on adjacent Horeshoe Lake (Crittenden County, Ark.) a flock of 30 White Pelicans were seen 12 Oct. (Freeman Wright); also 35 of the latter on Lake Ouachita, 28 Sept. (Dr. Wendell L. Whittemore). Our first Cattle Egret near Memphis was one at Booker, Arkansas, 10 Nov. (BCs). A Wood Ibis was seen 20 Nov. on the river at Shelby Forest (Helen Dinkelspiel). Among a large number of ducks on Horseshoe (and Porter) a flock of 200 Buffleheads, 24 Nov., is much larger than usual. Golden Plover seen: 4 east of Booker 6 Oct., west of Booker 10 on 20 Oct. and 1 on 10 Nov. In a large rice field 5 miles SE of Hoxie, Ark. on 13 Oct., I found a LeConte's Sparrow (my earliest), an American Bittern, and 10 Short-billed Marsh Wrens. A flock of over 8,000 Chimney Swifts seen going down the Power Plant stack, 13 Oct. State College, Jonesboro. The Tree Swallow has been almost absent in fall from the Penal Farm, where once common, and elsewhere east of the river. Across the river it is common; and 11,870 were totaled on a circuit of Horseshoe-Porter Lakes, 20 Oct. An Olive-sided Flycatcher was perched, 22 Sept. at Randolph, Tipton County, Tenn. (BC, LC, Alice Smith, HD). Oliver Irwin watched small flocks (up to 68) of Blue Jays, evidently migrating, over Mud Island, 28 Sept. to 11 Oct. when last noted.

A very unusual record by B. B. Cooper and a companion was that of hearing a Whip-poor-will call about a minute, 9 p.m., 3 Dec., at 5 miles NW of Durant, Miss. Moon was up, weather mild; B. B. has contributed many good records on this species. The Woodcock appears on several lists, including one, 24 Nov. (AS, Katheryn Paullus) at the Ben Carr Pines, and one on Coffey Grounds, 7 Nov. Chapter members finally relocated the Red-cockaded Woodpecker in the Ben Carr pines (E of Pocahontas, Tenn.): 2 on 24 Nov. (T. O. S.), 1 on 4 Dec. (HD, Mrs. Ed Carpenter).

The Red-breasted Nuthatch, not uncommon in non-pine areas as a fall transient. One (our earliest) on 22 Sept. (Victor Julia), Leaf Lake near Randolph, 9 in Riverside Park, 5 Oct. (VJ and OI); 16 on 27 Oct. (T. O. S.) in Shelby Forest. Many stops in pine areas yielded none: Chickasaw S. P., brief, 29 Sept. and 2 Nov.; Ben Carr pines, brief, 16 Nov.; Iuka-Eastport road, 17 Nov. Other pine stops, 4 on 26 Oct., Wall Doxey (Spring Lake) S. P., 1 on 3 Nov., Natchez Trace S. P., 2 on 4 Dec., Ben Carr Pines (HD, TC); only 7 on 1 Dec., Cove Lake and south (Mt. Magazine) and 1, many stops on Ark. 7, N. from Hot Springs, 28 Nov. In latter areas the Pine Siskin in occasional flocks: 50, Hollis, 28 Nov.; 100, Mountain Valley, 1 Dec.; at Cove Lake, 300 on 1 Dec. In the Ben Carr pines, 4 Dec., 8 (HD, TC). At Memphis: Riverside Park, 42 on 2 Nov. (OI, VJ); Overton Park — 120, 7 Dec. (BC), 70 on 8 Dec., 10 on 22 Dec. (WLW), 1 on 4 Jan. On the Count, 22 Dec., also — 20 at Raleigh (Ed King), 22 in Ensley (LC, HD, Earl Fuller). The Lapland Longspur has not been recorded near Memphis (coverage down; 14-inch snow, 22 Dec. may have moved those we had).

BEN B. COFFEY, JR., 672 North Belvedere, Memphis 7, Tenn.

NASHVILLE. — Our area had a half inch of rain on 7 September, then clear dry weather until November. The result of this was no reports of migrating land birds, and almost no reports of shore birds. December was our coldest ever, with both Bush and Radnor Lakes frozen over most of the time from 13 Dec. to 18 Jan.

All records given here for Bush Lake are by the writer.

There were no fall reports for Loon. Horned Grebe were late with the first a single 9 Nov. on Old Hickory Lake (LOT). They did winter again with 35 there on 18 Jan. (LOT, HEP). Pied-billed Grebe were at Bush in unusual numbers, probably due to a third of the surface of the lake being covered with moss all late summer and fall. Numbers ran from one on 11 July to 29 on 14 Sept. and on up to 46 on 28 Oct. (our largest number ever), then gradually down to the last there, 3 on 27 Dec. Seven were on Old Hickory 18 Jan. (HEP, LOT).

Canada Geese were fairly early with 13 on 4 Oct. and 23 on 8 Oct., both at Bush. Most species of duck were late with the first wave arriving at Bush on 28 Oct. with eight species present. Two Blue-winged Teal were seen on Bush both 18 Nov. and 14 Dec. Both these dates were latest ever at the time. It is thought that they remained continually from Aug. to late Dec., but these two dates were the only times the writer could get close enough to flush the birds and be sure of their identification. A female Pintail at Bush was early on 23 Sept. Three Redheads were at Bush on 31 Oct. and from one to three were seen there on most trips through 22 Jan. Three Canvasback on 4 Nov. were fairly early, and 10 were seen on 22 Jan. Five female Goldeneye at Bush on 22 Jan. Three Bufflehead arrived at Bush on 11 Nov. and from 1 to 3 were there on most trips through 22 Jan. Flocks of 11 Hooded and 12 Common Mergansers were on Old Hickory on 18 Jan. (LOT, HEP). A Red-breasted Merganser was there on 16 Nov.

A female Pigeon Hawk was observed at 50 feet at Bush Lake on 26 Sept. She was perched in a small tree at the edge of the lake. A Green Heron was directly below her and must have been relieved when she was flushed by the writer. This hawk was our eighth record in nearly 50 years. 500 Coot arrived at Bush on 29 Oct. This number slowly dwindled to a few at Christmas. 18 Snipe were at Coleman's lake on 11 Dec. (LOT). A Greater Yellowlegs at Bush on 23 Nov. was the latest ever except for one on our 1923 Christmas Count, MIGRANT 3:42. A Dunlin was there at the same time, our only record so far this winter. Two Ring-billed Gulls were at Old Hickory Lake 21 Sept. (LOT) for our earliest ever, but these could have been two summering birds reported in July, MIGRANT 34:51. They built up in numbers to around 500 on 3 Dec. and to about 750 on 18 Jan. (LOT, HEP), both at Old Hickory. Bonaparte's Gulls were present there 12 Nov. with 30 and increased to 250 by 28 Dec. (LOT), and 200 were seen for our latest ever date on 18 Jan. (LOT, HEP). On 21 Sept. (LOT) found 24 Common and two Caspian Tern at the same lake, the latter a latest ever record.

The last Nighthawks were two on 20 Oct. (HCM). He had the last record for Chimney Swift the day before. Jimmy Parrish found a late Kingbird at Two Jays on 21 Sept. A Least Flycatcher was banded there the same day (KAG). Fall Swallows were extremely scarce. Seven Red-breasted Nuthatch were found in three places on 30 Sept. (SB, ARL, JOE). They seem to have been fairly common to date. The first report of Myrtle Warblers was ten at Pond Creek (HEP) on 6 Oct. and they have been very scarce since. Both Robin and Grackle have been extremely scarce since early Dec. A Mourning Warbler was netted and banded at Two Jays on 14 Sept. by KAG, as was a Wilson's Warbler on 21 Sept. An unusual record was of a Blue Grosbeak she banded there on 15 Sept., our latest ever. First report of Purple Finch to me was one at Basin Springs on 3 Nov. (KAG).

We have had scattered reports since. KAG found a flock of around 25 Pine Siskins on her Basin Springs farm on 3 Nov. and has seen them on most week ends since, plus a flock several times in the nearby South Harpeth Valley. A fairly late Chipping Sparrow was one at home by ARL on 1 Nov. A rare Harris' Sparrow was at the Hodgson home in the deep snow on 23 and 24 Dec. They also reported two White-crowned Sparrows on 10 Oct. An unusual find for them was a Song Sparrow at their home on 25 Sept., an earliest ever date for fall here.

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

COLUMBIA. — Our fall field count was held on 25 Sept. and produced 71 species among which were found the Yellow-crowned Night Heron, Black-billed Cuckoo, Barn Owl, Bewick's and Short-billed Marsh Wrens, 13 species of Warblers and Vesper Sparrow. Dan Gray III identified a Brewster's Warbler on 18 Sept. A Sanderling was seen at Arrow Lake 1-7 Sept.

Seventeen species of ducks and several flocks of Canada Geese were found on lakes and Duck River from September thru December. Ponds, lakes, and much of river froze over before two record nine and eighteen inch snowfalls 22 and 31 Dec. Ducks were numerous on unfrozen patches of river (see Christmas Count).

Birds at home feeder and Arrow Lake feeder were numerous, but rapid melting of snow apparently prevented food problems for birds, who survived deep snow well by repeated counts. Large flock of Kingbirds (over 50) seen Arrow Lake 1-15 Sept. As many as 30 Hummingbirds in the marsh until 6 Oct. Nighthawks stayed until 18 Oct. Last Warblers: Tennessee, Black-throated Green 13 Oct. Northern Waterthrush 12 Oct., Magnolia and Palm 20 Oct. Sparrow arrivals: Swamp 6 Oct., White-throated, 13 Oct., White-crowned, Song and Lincoln's 20 Oct., Fox 9 Nov. Osprey at Arrow Lake in Sept. Common Loon there 19 Dec.

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

COOKEVILLE. — At recent meetings of local TOS members numerous comments were made about the scarcity of birds during the fall months. Some physical factors may explain this dearth in part. A bumper crop of domestic fruits, and wild fruits (except blackberries), were favorable for the birds until some kinds became prune-dry (high bush cranberries). Hackberries, rose hips, and others, fared a little better. During the early snows Cardinals even tried the seeds of the tulip (poplar), and catalpa beans. Observed areas in town had an ample supply of water, but this was less so in certain rural areas.

Some "firsts" from the compilers backyard: 8 Aug. the first Pewee ever found there; 1 Oct. First Grackles were seen in flocks; 10 Nov. First snow, barely a ground cover; 17 Nov. A snow heavy enough to drive birds into feeding areas; 23 Dec. Sixth snow; 4-5 inches; 27 Dec. Seventh snow, light, just before count day — 28 Dec.; 31 Dec. Snow, sleet, freezing rain, then more snow, six inches on level ground.

Comments by other TOS members of this area: Uneven distribution of Purple Finches, none where once common, numerous a few blocks away (S. McG). Some reported Brown Creepers for the first time, others saw more than usual (CP & CW). Several Fox Sparrows were found in town, more than commonly so (CH). Song Sparrows have developed regularity in visiting some yards (CP & CW). A Screech Owl has taken over the one-

time nest of a Flicker (CH). Dr. Bruce (physics) is the dove champion — more than 90 counted as they came in to feed, but only 64 on count day. (He puts cracked corn out before daybreak — all gone before Starlings arrive. If put out at night, rabbits profit too much.)

Clearing a swampy woodland on Tech campus has left a natural habitat for Snipe. One, along with Killdeer, was seen on count day. It was seen several times since, but Mrs. Knight, wife of Dr. E. B. K., Ag. school, did the clinching identification when one lit within ten feet of her window in a well-lighted spot (not on count day).

P. L. HOLLISTER, Tenn. Tech., Cookeville.

KNOXVILLE. — Late fall migrants were a flock of 120 Nighthawks seen by Paul Pardue on 24 October and a single Green Heron by James Campbell on 28 November. Most fall migrants passed through or departed on their usual dates.

Four species of birds are more abundant this winter than usual: Pine Siskin, Red-breasted Nuthatch, Yellow-bellied Sapsucker, and Rusty Blackbird. Pine Siskins have been very abundant in the nearby Great Smoky Mountains this past fall and winter, greatly exceeding the numbers of Goldfinches there. The first one was not recorded from Knox County until 27 November and on the Christmas Count there were three to four times as many Goldfinches as Siskins, but this is the first in several years that the latter has been present. Red-breasted Nuthatches were first reported on 19 September, Sapsuckers on 28 September, and Rusty Blackbirds on 19 November. A large roost of Starlings and various blackbirds has been present all fall and winter in the Ebenezer Road section of western Knox County. The number of birds using the roost has been estimated to be between 200 and 500 thousand birds; it has not been possible to break this down to numbers of each species.

A Lark Sparrow, the first known to winter in this area, has been at Mrs. T. C. Swindell's feeding station since 14 October and was still present on 10 January. Another Lark Sparrow appeared at the feeding station of Jerry Payne in Oak Ridge about 3 January. Another rarity was a White-winged Crossbill seen by James Campbell at Cove Lake, Caryville, about 1 January; small numbers of these have been seen this winter in the Smokies. Lesser rarities for this immediate area were small flocks of Red Crossbills seen at my home in southern Knox County on 26, 28 December, and 11 January, and a Barn Owl seen by Joseph Howell on 22 December.

Although Evening Grosbeaks have been seen in numbers to the northwest of us at Oneida and to the south of us in the Smokies, the only Knox County record this year is one seen on 26 November.

The only bird which has been notably scarce this year is the Phoebe; only one was seen on the Christmas count.

JAMES T. TANNER, Department of Zoology, University of Tennessee, Knoxville.

GREENEVILLE. — The season seemed to be very good for the hatching and rearing of Bobwhite and Ruffed Grouse. They were seen in greater numbers this season than any in the past several years. Bluebirds were slightly more abundant than last year. Blue Grosbeaks were again present in two sections of the county. By 25 June they had taken over in a silage field and were chasing another pair away. The first week in August

a male and female with four immatures were feeding in a silage field, but we were unable to locate the nest (Richard Nevius). On 16 Sept. the male of the pair in the eastern part of the county was heard singing for the last time (Elva Darnell). On 27 April several Common Gallinules were seen near a small pond close to Mosheim. On 28 April The Green County Chapter held its spring census after an eastern storm on the Atlantic Coast and were fortunate to have seen some species not commonly seen here. These were Laughing Gull, Forster's Tern (ED), Common Gallinule (RN), and Red Phalarope (Clemens). On 3 May one female Wood Duck with seven young was seen on the Little Chuckey River (Roberts & Morrell). On 11 May one male Prothonotary Warbler was heard singing over Lick Creek on the western side of the county. On 28 June a male Prothonotary Warbler was seen again where one was heard singing earlier in the season.

On 13 Sept. 200 Nighthawks were observed flying south (Clayton). Bobolinks were in the silage and a large flock of Canada Geese was seen over Lick Creek, all signs that fall migration had started again. On 31 Aug. Red Crossbills were seen feeding in the hemlocks on lower Paint Creek, a stream in the eastern part of the county close to Rich Mountain. They were first observed on the low branches then they moved up to the top of the tree. They also came down to the ground to feed on scraps around the picnic tables (Darnell). On 15 Sept. a Bald Eagle and Cliff Swallows were seen on Camp Creek Bald on the North Carolina state line.

On 16 Sept. a large flock of Broad-winged Hawks (1257) were over Bluff Mountain and a Virginia Rail in an alfalfa field (RN). On 17 and 19 Sept. Rose-breasted Grosbeaks were seen and on 19 White-breasted Nuthatches. By 23 and 24 Sept. we had two days of 34 degree temperature and frost. By 4 Oct. a Great Blue Heron was seen and occasionally into the winter. On 5 and 6 Oct. our annual fall get-together at and around Camp Creek Bald yielded a total of 65 species. Some of those found were Red and White-breasted Nuthatches, Brown Creeper, Wood Thrush, Swainson's Thrush, Veery, Golden- and Ruby-crowned Kinglet, Tennessee, Nashville, Cape May, Chestnut-sided, Bay-breasted and Wilson's Warblers. On 30 Oct. Yellow-billed Cuckoos were still around and Cedar Waxwings had started to come in (RN). On 2 Nov. on Davy Crocket Lake a phalarope, which was not identified as to species was seen (ED). This is the first phalarope known in Greene County, although other reports have them at Alcoa and Gatlinburg at this time of the year. On 3 Nov. while making a return trip in search of the phalarope of the previous day two Rough-winged Swallows, a Common Loon and a Pied-billed Grebe were seen (Darnell and Nevius). On 10 Nov. a flock of 21 Wood Ducks were seen on a small creek (RN). On 12 Nov. another flock of 40 Cedar Waxwings were seen. Great Horned Owls were hooting by the middle of December.

On 18 Dec. the temperature was 8 degrees and on 19 2 degrees and many of the small birds up to and including Red-bellied Woodpeckers were coming to porch for food. On 21 Dec. a Palm Warbler was coming to the feeder (Gaut).

On 27 Dec. we took our annual Christmas Count with 8 inches of snow on the ground. Birds were not hard to find but were not in the usual places, none in the open fields due to the snow cover, rather plentiful around tall weed patches and thick hedge rows and in evergreen stands. Horned Larks were abundant around the cattle feed boxes and on the roads but not in their usual places on the pasture fields (RN).

RICHARD NEVIUS, Route 3, Greeneville.

KINGSFORT. — Sometimes the weather seems to have little relation to the activities of the birds we observe. At other times we notice direct relationship as in the numbers of migrating birds coming with a cold front in the autumn. The weather of the season just past made possible many of our most interesting observations. The Warblers filtered through the trees for almost three months in fall migration. We think the very dry, rather warm weather of October and early November prolonged the migration. We had Myrtle Warblers 4 October and many more than the usual observations of Tennessee Warblers in early October through 17 October. The Nighthawks stayed late with the last date 11 October. White-throated Sparrows first appeared 12 October while the Catbirds were still here. With the first frost on Halloween we recorded the first Juncos. The next week brought Canada Geese 9 November, and we saw a belated Red-eyed Vireo. 13 November we had our first snow and recorded American Mergansers and Wood Ducks. On 16 November, a clear bright day with a temperature of 45°, I saw a Hooded Warbler, a brilliant male, in a pin oak at a distance of about 10 feet. All that week a flock of Cedar Waxwings had come regularly to drink from my ornamental fish pond. Howard Young later observed flocks of Waxwings in December. The nights of the two middle weeks of November were below freezing, but the days were warm and windless, clear and dry. Boone Lake was very low. On 19 November about noon with a temperature of about 65° I saw one Broad-wing Hawk on an updraft over Boone Lake. At the State Park a half hour earlier I had watched Turkey Vultures and five Black Vultures soaring over the River. On the Holston there were Scaup and Baldpate. During the last week of November and the first of December we had light snows but the White-throats and Song Sparrows continued to sing and on 7 December at 8:50 a.m. the Arthur Smiths saw a Black and White Warbler. At the feeding station of Mrs. Fred Kays the male Baltimore Oriole continued to appear.

December and January brought temperatures much below normal and two deep snows that lay on the ground for more than a week. The snows provided unusually good bird watching for feeding station operators, and probably the cold weather accounted for the many species of ducks moving in and out of the area. Pine Siskins have been recorded oftener than usual, Red-winged Blackbirds, Fox Sparrows, Evening Grosbeaks and Purple Finches have been seen regularly by different observers. In general I think we may conclude that while the first part of the season was rather warm and very dry, the last part of the period quite cold and very snowy, the activities of the birds, like the weather, have been both expected and unexpected, as usual.

ANN SWITZER, 1620 Fairridge Place, Kingsport.

BRISTOL. — The winter in our area has provided a fairly cold season accented by two heavy snows. The first accumulated over the night of 22 December to a depth of five or six inches and the second offered a seven inch white blanket on 13 January.

Area observations focused on South Holston Lake with field trips getting a late start on 2 November and staggering until the pace was caught up by 1 December. After this date, observations became more intense with weekly trips providing rich rewards.

South Holston Lake, elevation 1729 feet, is one of TVA's deep mountain reservoirs. Characteristic for its small waterbird populations — seldom reaching as many as a hundred birds — it has maintained one of its greater populations in recent years. Waters were frozen in the upper lake areas on 22 December and remained solid with nearly half of the lake freezing over during the extreme cold of 19 January.

Common Loons remained late on the lake with single birds recorded for 1 Dec. (WC), 22 Dec. (KD, WC) and three on 28 Dec. (HW, WC). Horned Grebes were present fairly regularly. Three observed on 22 Dec., 28 Dec., and four and five respectively on 2 and 4 Jan. Pied-billed Grebes have been located on all visits, generally in numbers from one to four individuals with a peak observation of 11 on 22 Dec. (KD, WC). First record of the Great Blue Herons came on 24 Nov. (SF, WC). One to four birds were present on most other visits.

Our only record for Canada Geese was of 60 birds passing in wedge formation at a very high altitude near 421 Bridge on 21 Dec. (RQ, WC). Mallards were present 22 Dec. (5), 28 Dec. (10) and 18 Jan. (1). Black Ducks appeared regularly in numbers from two to 16 since 22 Dec. Only two Canvasbacks noted: a single bird on 16 Dec. (WC) and 20 Dec. (FB, WC).

Other waterfowl observations included Lesser Scaup: 2 Nov. (1), 28 Dec. (5), 2 Jan. (6) and 4 Jan. (10); Common Goldeneye: five to 20 birds on dates of 22 Dec., 28 Dec. and 2 and 4 Jan. Buffleheads ranging from five to 20 birds with our first record coming on 1 Dec. Hooded Mergansers round out the list with observations on: 22 Dec. (11), 28 Dec. (6), 2 Jan. (1) and 4 Jan. (2).

It appears to be a good winter for hawks with records for six species. Cooper's Hawks were seen on three occasions with a spotting from Fairacres on US 11E, one bird 27 Dec. (WC); three on our Christmas Count of 28 Dec. and one additional observation at South Holston Lake, 4 Dec. (EV, WC). Broad-winged Hawk flights began with a count of 13 floating by the Clinch Mountain fire tower near Mendota, Virginia on 31 August (GC, WC). Red-tailed Hawks present 21 Dec. (RQ, WC) and 28 Dec. (HW, WC) with single birds being seen on each occasion. Two Red-shouldered Hawks made our Christmas Count. Reports came from the South Holston River, 28 Dec. (JA, FB) and on the same date an additional report (RQ) from Southwest Virginia. Two adult Bald Eagles were observed near the 421 Bridge at South Holston Lake on 20 Dec. (FB, WC). Sparrow Hawks were common throughout the period with regular reports.

An American Coot was identified on 2 Nov. and was the first observation for the season. An additional bird appeared on South Holston River near the middle of December and remained into January.

Ring-billed Gulls, whose presence is seldom noted in large numbers until March, was first seen on 20 Dec. (1) and has continued with records for 22 Dec. (2), 2 Jan. (6), 4 Jan. (2) and 18 Jan. (6).

A single sight record of a Great Horned Owl was obtained at Observation Knob Park on the evening of 15 Jan. (GMM).

Turkey Vultures have been present into Jan. A group of 20 birds perched in the trees near Jacobs Creek at South Holston Lake on 30 Nov. (SF, WC) was our largest single report of individuals.

Woodpeckers were found on most field trips to include Red-headed Woodpeckers wintering for the second consecutive year. Single birds appeared on 25 Dec., 2 and 15 Jan. Most persons report the Red-bellied with the first fall record for the Yellow-bellied Sapsucker on 12 Oct.

Other notes of interest include: Winter Wren, a single bird 28 Dec.; two Robins 19 Jan.; our only report of Bluebirds was at 421 Bridge on 4 Jan.; a single Water Pipit feeding below South Holston Dam on the reservation 21 Dec. (RQ, WC), and 4 Jan. (EV, WC). Cedar Waxwings first noted 20 Oct. with an occasional Myrtle Warbler seen in the vicinity of several feeding stations.

Blackbirds have been in particular abundance with Redwings on 2 Nov. (1) and three observations from a mixed flock feeding in a farm yard near Saddle Dam on 2 Jan. (30), 4 Jan. (26) and 18 Jan. (12). Rusty Blackbirds found near Wheeler's Dock 28 Dec. (5) and 4 Jan. (100) (EV, WC). Additional records include: Brown-headed Cowbird on 20 Dec. (6), 28 Dec. (13), 2 Jan. (6), 4 Jan. (2) and 18 Jan. (16). Common Grackle, which can seldom be located here in winter, have been reported in great abundance from all reports with numbers in the hundreds not at all uncommon. Maximum observations have been given for 2 Nov. (EV, WC) with a count of 1075 and 1030 individuals tabulated for the Christmas Count on 28 Dec.

Evening Grosbeaks have been noted at a local feeding station with a single bird being seen on each of the following dates: 1 Dec., 9 Dec. and 18 Jan. (HCE) and 20 Jan. (WC). Purple Finch have visited most feeders since the first report of 11 Dec. (CS) and additional reports from the same station gave numbers up to 50 individuals by 25 Dec. Pine Siskins are in abundance with reports of 17 on 16 Dec. (WC), 21 Dec. (13), 22 Dec. (9), and 94 on 28 Dec. (HW, WC). A single flock of 40 flew over South Holston Dam on 4 Jan.

Our first fall records for the following species have been: Slate-colored Juncos 11 Oct.; White-throated Sparrow on 12 Oct.; and a single White-crowned Sparrow on 28 Dec. Fox Sparrows have been fairly common with reports from several feeding stations during heavy snow falls. The first record of this species was 2 Nov.

CONTRIBUTORS: Fletcher Bingham, Wallace Coffey, George Craig, Kenneth Dubke, H. C. Epperson, Sandra Flowers, G. M. McGee, Robert Quillen, Mrs. Charles Stazer, Enno vanGelder, Hank Woodward.

WALLACE COFFEY, 508 Spruce Street, Bristol, Tennessee.

ELIZABETHTON. — It now appears that the Common Loon migrates through here in considerable numbers every fall with the first birds (2) of the season on 9 Nov. and a peak of 15 on 27 Nov., then a sharp drop and only one to be found on 24 Dec. Horned Grebes (4) first appeared on 10 Nov. while Pied-billed Grebes (6) were first noted on 29 Sept. No great concentrations of either species has been noted with the usual numbers running from one to seven. Great Blue Herons have been noted sporadically with the greatest number (17) located at the islands below Boone Dam on Patrick Henry Lake on 22 Dec. (WC). Canada Geese are rare in our area anytime so a flock of 25 noted flying over Patrick Henry Lake on 22 Dec. (WC) is worth mentioning.

Regular checks have again been initiated to follow the trends of waterfowl. The first record of Mallard (1) was on 10 Nov. with a buildup of numbers to 100 on 22 Dec. Black Ducks (8) were noted on 10 Nov. with an increase to 104 on 22 Dec. Gadwall seem to appear consistently in our area at the islands in Patrick Henry Lake below Boone Dam. The first noted (15) were on 10 Nov. One American Widgeon was found on 28 Sept., then none till thirty were found on 10 Nov. Their numbers ranged as high as

forty on 23 Nov., dropped to fifteen on 30 Nov. and none being located since. Pintails are rare here with the following records noted: 16 Nov. (1), 23 Nov. (6), 27 Nov. (2), and 15 Dec. (1). Blue-winged Teal (32) noted only once on 29 Sept. Shoveler (4) only found once on 10 Nov. A single Wood Duck was sighted on 15 Dec. and one Redhead on 22 Dec. Redhead were also found on the Christmas Count. Ring-necked Ducks (8) first noted on 2 Oct. and have been recorded regularly since. Canvasback (3) only sighted on 22 Dec. Greater Scaup were found on the Christmas Count (ED). Lesser Scaup (8) noted on 10 Nov. and peaked (100) on 30 Nov. A single female Common Goldeneye has been sporadically recorded on Wilbur Lake since 14 Sept. Other migrant Goldeneyes (25) did not appear until 22 Dec. Our regular winter population of Bufflehead on Wilbur Lake started arriving 17 Nov. when three were found and have built up to a high count of 54 birds. A rare Oldsquaw was found on 22 Dec. (KHD & WC). Hooded Merganser (7) were first noted on 17 Nov. with scattered individuals being found since. Common Merganser (3) only recorded on 27 Nov.

The Turkey Vulture was last noted on 2 Nov. Hawks continue to be rare as noted by the following single records: Sharp-shinned 29 Sept. and 18 Dec., Cooper's 13 Oct., Red-tailed 22 Dec., Marsh 29 Sept., and Osprey on 15, 22, 29 Sept. and 12 Oct. Sparrow Hawks have been noted regularly since 29 Sept.

The first American Coot (1) was located on 2 Nov. and a high of seventeen found 16 Nov. then dropped to scattered numbers to 15 Dec. One Semipalmated Plover was identified on 29 Sept. One Common Snipe on 29 Sept. and very few since. Spotted Sandpipers were present till 15 Sept., Solitary Sandpipers (3) to 29 Sept. No Greater Yellowlegs were found this fall and no Lesser Yellowlegs after 15 Sept. Pectoral Sandpipers (1) last noted on 21 Sept. Least Sandpipers (4) were last recorded at the Roan Creek area on 21 Sept., and an unusual record of one on Boone Lake 30 Nov. (LRH & CS). A single Dunlin was recorded on Boone Lake the following dates: 16, 23, and 30 Nov. (KHD, LRH & CS). To date only one Herring Gull on 23 Nov. and Ring-billed Gulls only on the following dates: 16 Nov. (1), 23 Nov. (2), 30 Nov. (9) and 22 Dec. (16). Caspian Tern (2) were again found on 29 Sept. (KHD).

Most owls in our area appear to be uncommon, except for the Screech, so the following records of the Barred Owl are interesting: 21 Sept., 6 Nov. and 19 Dec.

Brown Creeper have been noted here since 3 Nov. Two Bewick's Wrens on 29 Sept. Hermit Thrush were found on 17 Nov. and single scattered records for the remainder of the season. A record of a Blue-gray Gnatcatcher on 27 Nov. at Boone Lake is very late (KHD & LRH). Golden-crowned Kinglets have been found in most pine stands since 29 Sept. Very few records of the Ruby-crowned Kinglet: 23 Sept. (1), 29 Sept. (3), 13 Dec. (1), 23 Dec. (2), and 29 Dec. (2). Only three records of the Water Pipit: 25 Sept. (3), 13 Oct. (1) and 3 Nov. (1).

Field work in regard to the Vireos and Warblers has not been very intense and so there have not been any unusual records or numbers noted this past season.

The last Redwings (8) were observed on 25 Nov. and one Rusty on the Christmas Count (FWB). Common Grackles are more plentiful this year with flocks on 24 Dec. (150) and 25 Dec. (200). A few were also found on

the Christmas Count. This past fall a huge number of blackbirds and Starlings used the pine stands of the Big Spring in Hampton for a roost.

Fred Behrend in an article elsewhere will elaborate on the invasion of northern birds into our area. In this writer's opinion there have been very few Purple Finch with only the following records: 20 Oct. (2), 1 Dec. (3), 15 Dec. (1) and 11 on the Christmas Count. Pine Siskins have been relatively common this season with their being first recorded at lower elevation on 13 Oct. On the Christmas Count, 29 Dec., they were very common around Watauga Lake when over 200 were found. Eighteen Red Crossbills in the vicinity of Cove Ridge Dock in Butler were noteworthy additions to the Count.

Both the Savannah and Vesper Sparrows (ED) found on the Christmas Count were unusual. Fox Sparrows were first found on 13 Oct. and many scattered records since.

CONTRIBUTORS: K. H. Dubke, Fred W. Behrend, Lee R. Herndon, Ed Davidson, Charlie Smith, Wallace Coffey.

KENNETH H. DUBKE, 918 State Line Road, Elizabethton, Tennessee.

THE 1963 CHRISTMAS SEASON BIRD COUNTS

By T.O.S. Members and Guests

The thirty-third annual Christmas Season Bird Count tabulated in the following pages lists 115 species and subspecies. The number of species has been exceeded on six previous counts and equalled once. Fourteen counts are tabulated while three counts, for high altitudes only, are presented in paragraph form due to lack of space in the table. No new species was added to the list nor was there any species added by the high altitude lists that was not reported in the tabulated list.

The most unusual species for the count was the White-winged Crossbills which occurred in the Great Smoky Mountains and the Roan Mountain count by Fred Behrend. The birds in the latter case were on the North Carolina side of the mountain and were not observed in Tennessee. The first occurrence of this species was of two birds reported on the Memphis Christmas Count in 1954 (See MIGRANT: 25, 73, 74 and 79). The only other recorded occurrence of this species was of one and three birds in December 1955. (See Notes on the Birds of Great Smoky Mountains National Park — p. 195, 1963 by Arthur Stupka). The numbers of individuals was appreciably greater than previously observed.

Evening Grosbeaks occurred on three lists, indicating rather wide distribution and that a real invasion is on. Pine Siskins were more abundant than for many years. Bluebirds and Myrtle Warblers have increased by about one-third while Phoebes and Carolina Wrens are down about one-third from the 1962 counts.

INFORMATION ON THE COUNTS

Information on the counts and the corresponding species lists in the table are given progressively from west to east. The locations for which the species are not tabulated, the species and numbers are given under the appropriate location under Information on the Count.

MEMPHIS. — About half 1953 areas; wooded bottomlands 35%, deciduous woods & city parks 37%, pastures, bare fields 15%, suburban roadsides 10%, river edge 3%. 22 Dec.; 7 a.m. to 4 p.m., negligible after 12 p.m. Snow started 7:15 a.m.; record 14 inches about dark; temp. 19° to 16°, wind 8-20 NE; 20 observers in 6 parties. Total party-hours 28 (24 on foot, 4 by car); total party-miles 79 (25 on foot, 54 by car). Turkey (BC), 1st Count record. Mr. and Mrs. Ben B. Coffey, Jr., Mrs. Ed. Carpenter, Mary Davant, Mrs. Henry Dinkelspiel, John H. Embury, Earl Fuller, Edward M. King, Charles McPherson, Nelle Moore, Mrs. Henry A. Schiller, Alice Smith, Dr. and Mrs. Arlo I. Smith, Lynn Smith, Ruth Stamm, Wendell L. and Bobby Whittemore, Mr. and Mrs. Chas E. Wilmeth. Also Mrs. Chas. Seahorn, Mrs. Paul C. Owen, and Mrs. C. E. Moore in their yards.

REELFOOT LAKE. — All points within a 15-mile diameter circle, center Reelfoot Lake; lake 20%, marsh 5%, deciduous woods 45%, field and farm 18%, roadside 12%. 30 December; 7:30 a.m. to 4:30 p.m., partial overcast; temperature 10° to 27°; wind NW, 0-8 m.p.h.; 8 observers in 3 parties. Total party-hours 24 (4 on foot, 17 by car, 3 by boat); total party-miles 118 (8 on foot, 103 by car, 7 by boat).

Seen in area count period, but not on count day: Goldeneye Duck, Red-head Duck, Ruddy Duck.

Participants: Evelyn Cole, John R. Conder, John L. DeLime, W. L. Hall, Jr., Dr. Hunter M. Hancock, Edward Larson, Clell T. Peterson, William T. Sledd.

JACKSON. — The count was made in the vicinity of Jackson in Madison County. 29 Dec.; weather conditions were unfavorable for water birds since ponds and lakes were frozen over although streams remained open. Even though early morning temperatures were around 20° the mid-day temperatures were in the thirties and forties and much more favorable for observation. (Seen in area during count period but not on count day — Red-headed Woodpecker).

MR. AND MRS. JOHN A. CHEEK II.

NASHVILLE. — Approx. same area as in past 13 years; area of a 15 mile diam. circle centering on Harding, 7 mi. W of Nashville ct-h. Included were Radnor and Bush's lakes, deciduous wooded hills, 40%; open fields and pastures, 25%; river-bottom fields, 20%; roadsides and suburban yards, including 21 feeding stations, 15%. 28 Dec. 6:30 a.m. to 6 p.m. Temp. 27-35-29 above; wind westerly 8-12 mph; visibility good, sunny in p.m.; ground frozen and snow-covered since 8" fall of 22 Dec. and sub-freezing temperatures since. 29 observers in 9 parties. Party-hours 103 (52 on foot, 27 by car and 24 watching feeders). Party-miles, 158 (37 on foot, 121 by car). Total 79 species (about average); 26,090 individuals of which an estimated 20,000 were Starlings roosting on downtown buildings. 190 of the 523 Cardinals were reported from feeding stations. The Horned Grebe was on Cumberland river (J.S.H.). Geese and ducks on the lakes. Greater Scaups by M. W. and E. E. Peregrine Falcon seen on wing (B. H. A.). Barn Owls at 2 locations. Red-br. Nuthatch, Thrashers and Grackles were at feeding stations. Meadowlarks, seen by all parties, apparently unaffected by protracted snow. Robins were abnormally scarce. Seen within the count period but not on count day, Pied-billed Grebe, 1; Bufflehead, 1 and Rusty

THE 1963 CHRISTMAS SEASON BIRD COUNTS

Species	Memp.	Reelf. L.	Jack.	Nash.	Colum.	Leba.	Cook.	Chat.	Knox.	Smok.	Green.	Kings.	Bris.	Eliza.
Common Loon		2											3	
Horned Grebe				1				13	1				3	3
Pied-billed Grebe					2				2			5	4	3
Great Blue Heron		1		2	2	16		1	28	2		3	2	
Black-cr. Night Heron				2										
Canada Goose		10,000		2	10	23					12	1		
Hutchin's Goose		125												
Snow Goose		1												
Mallard	3	80,000		99	14	7,500		16	70		6	7	10	11
Black Duck		1,700		30	4	3,200		61	52			3	16	3
Gadwall		7,200		8		200			5			2		
Pintail		1,600				525			2			3		
Green-wing Teal		350		5	2	16						15		
Am. Widgeon		7,220		7					4			4		
Shoveler		250		25		21			1					
Wood Duck		1,000			20	38		1				2		
Redhead				5		2						12		4
Ring-necked Duck	150	8,000		147		400			12			6		14
Canvasback		1		1				7				10		
Greater Scaup				6										5
Lesser Scaup				77		500		8	20			10	5	
Com. Goldeneye				1					13			7	12	5
Bufflehead								4	2			2	12	15
Ruddy Duck				5								1		
Hooded Merganser		6			1			10	38				6	7
Common Merganser						20			4				12	
Turkey Vulture		2	4	1					1	1	18		9	

Black Vulture	34			17				3									
Sharp-sh. Hawk							1			1							
Cooper's Hawk				5		3	1	1	3	1	1				3	1	
Red-tail. Hawk	5	15		22	4	3	2	7	3	2	6				1		
Red-shld. Hawk		4		6	1	2		2	3						2		
Bald Eagle		14															
Marsh Hawk		4		3	1		1	1	1								
Peregrine Falcon				1		1											
Sparrow Hawk	4	7	2	32	4	3	5	6	15	3			1	8	2		
Ruffed Grouse										4			2				1
Bobwhite	54		24	25	15	14	13	22	46	8	23	15	24	1			
Turkey	7																
Am. Coot	1	6,000		76		60			2			6					
Killdeer		2		24	2		2	19	37	4	2	3	12	6			
Com. Snipe		3		1			1	14	34								6
Herring Gull								2	5								
Ring-billed Gull		1		7				26	155				6				
Mourning Dove	7	18	13	145	52	420	162	181	655	79	162	23	130	6			6
Barn Owl				3					1								
Screech Owl					1		4		1		1	1					1
Great Horned Owl		2		1	3	2			1		1						1
Barred Owl	1	2		2	2												
Belted Kingfisher				8	3	2	2	5	15	4	3	1	3	6			
Yel.-sh. Flicker	84	14	4	42	8	7	32	55	66	14	6	5	2	9			
Pileated Woodpecker	2	3	2	22	4	2	7	5	20	12	9	8	5	7			
Red-bel. Woodpecker	39	13	5	66	21	7	20	34	42	5	11	7	3	1			
Red-headed Woodpecker	7	7				1	7	12	3		1	1					
Yel.-bel. Sapsucker	22	1	2	12	7	3	9	14	39	16	5	1	1	3			
Hairy Woodpecker	11	3	1	12	2	1	4	4	12	6		3		2			
Downy Woodpecker	9	9	4	72	13	7	15	34	69	34	14	17	12	24			

Eastern Phoebe		1			2				1	2	5	1		
Horned Lark	84	75	41	280	250		31	75	71	6	56		21	2
Blue Jay	158	26	72	109	11	24	175	215	293	85	64	123	52	35
Com. Raven											5			
Com. Crow	4	2,000	16	211	140	1,000	125	397	648	200	360	60	279	94
Black-cap Chickadee										) 150				
Carolina Chickadee	60	11	5	252	24	26	52	63	263	)	55	50	30	60
Tufted Titmouse	22	17	31	188	20	37	61	169	168	110	31	69	20	29
White-br. Nuthatch	1	3	1	8			9	26	8	2		8	1	3
Red-br. Nuthatch				2				26	35	78	8	2	1	3
Brown Creeper	3	1		6			5	4	21	13	4	3	2	
Winter Wren	2	2		2	3	1	7	4	5	12	1	3	1	2
Bewick's Wren		1		5		3	5	2	1		4			1
Carolina Wren	15	5	6	20	3	4	8	51	84	30	19	17	5	23
Mockingbird	26	25	17	135	5	5	20	123	224	10	23	33	30	17
Brown Thrasher	19	3	1	2		1	15	13	3			3		
Robin	28	3	3	162	1,510	10	4	145	118	13	1	4		1
Hermit Thrush	14	5	1	2	2		2	2	6	19				2
E. Bluebird	2	4	22	68	16	6	17	36	12	80	18	2		12
Go.-cr. Kinglet	3	1	4					6	52	54	6	15	4	3
Ruby-cr. Kinglet	1			2				25	16	25	1		1	2
Water Pipit				18										
Cedar Waxwing	10			50	53	1	24	191	113	14	20	13		6
Log.-hd. Shrike		3	7	16	3	1	8	7	12	3	7	1	5	2
Starling	4,400	900,000	25,000	20,000	6,000	1,000	761	1,771	10,245	210	1,094	100	1,093	3,676
Orange-cr. Warbler							1							
Myrtle Warbler	40			6	3		5	108	142	60	13	8		31
Pine Warbler									2					
Palm Warbler							1	1	15	1				
House Sparrow	51	500	40	200	54	40	135	358	298	180	94	147	134	135
E. Meadowlark	75	49	150	419	125	38	150	188	211	125	219	31	107	49

Redwing Blackbird	8,140	1,350,000	2,000	247	210		10	579	74	2	2	3		
Baltimore Oriole												1		
Rusty Blackbird					225		2	14	36	6			5	1
Com. Grackle	7,400	630,000	10,000	4	30		178	120	120		5		1,030	103
Brown-hd. Cowbird	25	450,000	6	1	150		35	1	15				13	
Cardinal	255	110	63	523	60	50	135	237	385	70	104	140	144	79
Evening Grosbeak										72				1
Purple Finch	5			11		2	24	93	103	85	7	19	1	11
Pine Siskin	52							4	136	2,800		40	94	216
Am. Goldfinch	68	14	6	226	11		53	340	497	60	69	32	55	95
Red Crossbill										89				18
White-wing Crossbill										15				
Rufous-sd. Towhee	36	3	23	112	20	5	68	118	159	11	8	53	6	27
Savannah Sparrow	44	10		34	55	1		11	7		7			2
LeConte's Sparrow	2													
Vesper Sparrow								4						1
Lark Sparrow									1					
Slate col. Junco	741	150	100	773	35	22	184	221	665	292	90	176	190	166
Tree Sparrow		1		2										
Chipping Sparrow								2						
Field Sparrow	90	50	7	270	12		64	433	283	100	6	30	50	36
White-cr. Sparrow	3	1	3	43	5	15	10	3	89		38	3	7	10
White-thr. Sparrow	1,266	53	115	271	84	7	76	237	743	190	75	100	53	74
Fox Sparrow	44	12		38	4	1	12	5	11	6	2	2	1	5
Lincoln's Sparrow								1						
Swamp Sparrow	56	37		172	30		2	75	29	13	6			7
Song Sparrow	111	55	68	191	38		24	194	317	157	55	25	106	54
SPECIES	54	73	38	79	59	56	53	77	86	58	54	66	56	66
Individuals	23,872	3,456,845	37,868	22,991	9,408	15,298	2,925	7,259	18,593	5,664	2,859	1,503	3,835	5,211

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THE MIGRANT

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Blackbird, 5. Field observers were Mr. and Mrs. B. H. Abernathy, Mrs. Wm. F. Bell, Mike Bierly, Larry Copes, Annella Creech, S. Tennison Dillon, Milbrey Dugger, John O. Ellis, Mrs. Erline Elmore, Charles Farrell, Albert F. Ganier (retiring as compiler, after 50 years), Paul Green, Katherine Goodpasture, Mr. and Mrs. John S. Herbert, Virginia Hagen, Marguerite McKinney, Geo. R. Mayfield, Jr., Henry E. Parmer, Jimmy Parrish, Mr. and Mrs. Wm. A. Puryear, Jennie Riggs, Mr. and Mrs. Kirby Stringer, Paul Stumpf, Lawrence O. Trabue and Mary Wood. Mrs. Kirby Stringer compiled the list of 41 species observed by other members watching their feeding stations and home grounds. These were, O. C. Ault, Mrs. W. F. Bell, Jr., Mrs. Bergstrom, Mrs. B. E. Britt, Jr., Merrill Carter, Mrs. Don Cassel, Mrs. Chas. Cornelius, Sr., Mrs. Watson Crockett, Mrs. K. B. Everly, Mrs. R. E. Faitoute, Mr. and Mrs. Wm. E. Fentress, Mrs. W. C. Finch, Mary Frazer, Hugh L. Fry, A. Ben Grose, Louise Jackson, Mrs. Herman Knauth, Mrs. R. E. Lynn, Mr. and Mrs. Harvey McClanahan, Mrs. Greer Ricketson, Mr. and Mrs. Max Schurman, Jesse Wills.

COLUMBIA. — 31 Dec. overcast; 18° to 28°; five observers.

LEBANON. — Our Christmas count, conducted on 30 December, took the form of watching from ten selected locations rather than of the customary tramps. The number of species observed is, we believe, about what it would have been by the other method but the number of individuals (except in the case of ducks and geese), is considerably less.

The result is notable, not for anything else, but for some things that could not be found, especially shore birds and owls. Despite an all night vigil in a location which ordinarily yields at least three species and from which the Great Horned has not been absent for sixty years, not only the Great Horned nor an owl of any kind was heard. Not a Killdeer was found on any of half a dozen locations where they are ordinarily common. The latter we attribute to the coincidence of a long freeze and a continuing drought. Springs and small streams are not running sufficiently to prevent freezing and there is no open water feeding ground. For the absence — or persistent silence — of Great Horned, Barn, Barred and Screech Owls we have no explanation.

All waterfowl, like most of the Crows and Mourning Doves, were seen on the Lock Five refuge of the Tennessee Game and Fish Commission on Old Hickory Lake. Except for a notable increase in the number of wintering Great Blue Herons, the number of all species is about what was to be expected.

Of the twelve observers, eight worked alone, the others in pairs. Compiler: Dixon Merritt.

COOKEVILLE. — Territory covered is approximately the same as that covered in the last four counts. However, new subdivisions and extensive additions to sewers have changed the nature of the woods of our suburbs.

Habitats: lakes and swamps 20%; fields 35%; woods 30%; vacant lots, Tech Campus 5%; roadsides, streets and town square 10%. Count day, 28 Dec. 7:30 a.m. to 4:30 p.m., temperature 28 - 35°; wind 0-12 m.p.h.; overcast until noon. Total party hours, 75 (60 by car, 15 on foot); total party-miles 475 (455 by car, 20 on foot). Some "on foot" watching bird feeders. Sixteen observers, in 11 parties.

Observers: Dr. Claude Bruce, Dr. J. O. Cummins, Mrs. Caprice Haile, Jim Haile, Dr. and Mrs. Sidney McGee, Mrs. Lee Medley, Dr. J. T. Moore, Johnny Moore, Mrs. Constance Peterson, Miser Richmond, Miss Chrissa Wendt, Miss Marie White, Mrs. Milo Williams. P. L. Hollister, (compiler).

CHATTANOOGA. — All points within a 15-mile diameter circle, center National Cemetery in city; fields and pastures 35%, woodlands 20%, ponds and lakes 15%, creeks and rivers 15%, roadside 10%, and residential 5%. 29 Dec.; 4:00 a.m. - 5 p.m. Clear, temp. 24 to 44 degrees; wind N, 5-10 m.p.h.; 21 observers in 7 parties. Total party hours, 58 (41 on foot, 17 by car); total party miles 259 (30 on foot, 229 by car). One new specie reported for the first time on the Chattanooga count: Orange-cr. Warbler (Benton Basham & Prof. E. O. Grundset) field marks and actions of warbler seen with ease for 15 minutes at distances of 15-35 feet under good lighting conditions. Two species seen on the 1962 count were again counted and confirmed for this Christmas count; (Lincoln's Sparrow, West party and the Palm Warbler, Basham party.)

Mr. and Mrs. T. S. Barr, Benton Basham, Ralph T. Bullard, Jr. (compiler), Mrs. R. T. Bullard, Jr., Gladys Conner, Mrs. Leon F. Cross, Mrs. H. W. Crownover, Mrs. Victor Divver, Mrs. W. L. Fenn, E. O. Grundset, Catherine Kellerman, Kurt W. Krause, Mike Mantooth, Mr. and Mrs. Howard Meadors, Mrs. C. F. Prestridge, Mr. and Mrs. Eugene Ranger, Mr. T. L. Rogers, Mrs. J. W. Thompson, Mrs. Douglas Tunsberg, Mr. and Mrs. E. M. West.

KNOXVILLE. — All points within a 15-mile diameter circle, center at Oak Ridge Highway and Ball Camp Pike; roadsides 22%, brushy fields and pastures 22%, deciduous woods 18%, cemeteries, city parks, and suburbs 17%, ponds and lakes 10%, open and cultivated fields 7%, pine woods 4%. 22 December, 6:30 a.m. to 5:50 p.m. Clear a.m., cloudy p.m.; temperature 21° to 38°; wind NE, 0-10 m.p.h., ground frozen, most waters frozen. Twenty-two observers in 14 parties. Total party hours, 116 (98 on foot, 18 by car); total party miles, 444 (77 on foot, 367 by car). Twelve species of duck, a Coot, and two species of Grebe, along with two species of irregular northern visitors — Pine Siskin and Red-breasted Nuthatch — helped boost the count to the highest ever found here on a winter count. Most unusual on the list is a Lark Sparrow, which has been a regular visitor at the feeding station of Maxie Swindell since October. Two Pine Warblers were also found by Maxie, and a Palm Warbler and Marsh Hawk by Beth Lacy. Better-than-usual coverage also helped obtain the 86 species. Jim Campbell, Danny Ellis, John Elson, Mary Enloe (compiler), H. C. Garlinghouse, Quincey Gorman, David Highbaugh, Joseph C. Howell, Beth Lacy, Laura Beth Lacy, Charles Loveday, Mr. and Mrs. J. T. Mengel, Mr. and Mrs. R. A. Monroe, Holly Overton, Paul S. Pardue, Tom Pardue, Maxie Swindell, James T. Tanner, Mr. and Mrs. George Wood.

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 the 1937-1956 counts).

29 December, 1963. 7:30 a.m. to 5:00 p.m. Clear; temperature range 14°-40°; wind 1-15 m.p.h.; ground snow-covered, from patches (lowlands) to 10 inches in high altitudes.

Nineteen observers in 9 parties. Total party-hours 66 (51 on foot, 15 by car); total party-miles 206 (56 on foot, 150 by car).

Vernon R. Bender, Jr., Carlos C. Campbell, James M. Campbell, Donald Defoe, John Elson, Mary Enloe, Mr. and Mrs. H. C. Garlinghouse, David Highbaugh, Philip Huff, Mr. and Mrs. Robert A. Monroe, Paul S. Pardue, Mr. and Mrs. Arthur Stupka, (Compiler), Dr. and Mrs. James T. Tanner, Mr. and Mrs. George R. Wood, (Tennessee Ornithological Society, National Park Service and guests).

EASTERN SMOKY MOUNTAINS. — Start at Cosby Recreation Area to Low Gap on Appalachian Trail along trail to Inadu Knob to Cosby Camp Ground by Rock Creek Trail; evergreen woods 40%, mixed woods 60%. 5 Jan. 1964; 7:30 a.m. to 5:30 p.m. Cloudy to clear, snow up to 21 inches deep on the trail; temp. 25 to 45 degrees; wind 2 m.p.h. One observer. Total party-hours, 10; total party-miles 13 all on foot. Richard Nevius (compiler).

Ruffed Grouse, 6; Yellow-bellied Sapsucker, 4; Hairy Woodpecker, 3; Downy Woodpecker, 8; E. Phoebe, 1; Blue Jay, 9; Common Raven, 1; Crow, 3; Black-capped and Carolina Chickadee, 45; Red-breasted Nuthatch, 9; Brown Creeper, 3; Robin, 2; Purple Finch, 10; Pine Siskin, 112 and Slate-colored Junco, 31. Total Species — 15; total individuals — 247.

GREENEVILLE. — All points within a 15-mile diameter circle, center Mt. Pleasant Church, to include Lick Creek, Roaring Fork, Davy Crocket Lake, Nolichucky River, Paint Creek, Albany, Tusculum, and Greeneville; woodland 50% (deciduous with small patches of pines and cedars), open fields and pastures 45% (includes ponds and lakes), towns 5%. 27 Dec.; 6:50 a.m. to 5:30 p.m. cloudy to partly cloudy; temp. 34 degrees; wind from 0 to 20 m.p.h. 10 observers in 7 parties. Total party-hours, 20 (19 on foot, 1 by car); total party-miles, 50 (13 on foot, 37 by car). Seen in the area during count period but not on count day: Great Blue Heron, Wood Duck and Black Vulture. Mrs. Turner Clinard, Mrs. Chester Darnell, Mrs. Marion Edens, Mr. and Mrs. King Gaut, Mr. and Mrs. William Hollomon, Mrs. Wilma Irvine, Mrs. Richard Nevius, Richard Nevius (compiler).

BIG BALD MOUNTAIN, Tenn. - N. C. from East Fork Higgins Creek to summit of Big Bald, 3500-5516 ft.; deciduous woodlands 70%, grassy treeless area on top of Big Bald 30%. 22 Dec. 1963; 8:00 a.m. to 6:00 p.m. Clear to overcast; temp. 18 to 32 degrees; wind SE 1-10 m.p.h., 2-6 in. snow with drifts deeper. Two observers in one party (all on foot); total party-miles, 15 (all on foot).

Pileated Woodpecker, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Northern Horned Lark, 5; Blue Jay, 3; Raven, 1; Chickadee, 1; Titmouse, 1; White-breasted Nuthatch, 8; Goldfinch, 1; Junco, 8. TOTAL, 11 species, 32 individuals.

John Barnitz, Rt. 3, Erwin; Fred Behrend, 607 Range St., Elizabethton (compiler).

KINGSPORT. — 28 Dec.; 7:15 a.m. to 5:30 p.m.; heavy fog to 10:00 a.m., clearing, ground covered with 6" to 8" of snow; 22° to 40°; open water except on Bays Mountain. Seen in area during count period but not on count day — Shoveler, Turkey Vulture, Black Vulture, American Woodcock, Herring Gull, Ring-billed Gull, Horned Lark and Evening Grosbeak. The Green-winged Teal were seen on Holston River below Holston Ordnance. One was shot by a hunter, so identification was certain. The Redwinged Blackbirds have not appeared on our Christmas census previously. The Baltimore Oriole (M) has patronized Mrs. Fred Kays' feeder for some time. Joseph and Thomas Finucane, W. E. Gift, Mrs. Fred Kays, Mrs. William McGee, Vincent Quinn, Mrs. Lucile Smith, Robert M. Switzer, Jr., Mrs. Robert M. Switzer (compiler) and Howard S. Young.

BRISTOL, TENN.-VA. — (All points within a 15-mile diameter circle, center at junction of U. S. 11 and Va. Route 625, to include Bristol, Stone Mill Marsh, South Holston Lake and River; fields and farmland 40%, mixed deciduous forest 25%, lake and river 15%, town and residence 10%, misc. 10%). — 28 Dec.; 7:00 a.m. to 6:30 p.m. Partly cloudy, heavy fog in a.m.; temp. 22° to 36°; wind W, 10 m.p.h.; heavy snow on ground, most waters partially open. Nine observers in 6 parties. Total party-hours, 26 (13 on foot, 13 by car); total party-miles, 168 (8 on foot, 160 by car). (Seen in area count period, but not on count day: Canada Goose, Canvasback, Bald Eagle, Red-headed Woodpecker, Water Pipit.) — Judith A. Abbott, Fletcher R. Bingham (co-compiler), F. Rockwell Bingham, Rosemary R. Bingham, John Wallace Coffey (co-compiler), Robert H. Quillen, Enno van Gelder, Roger van Gelder, Henry Woodward.

ELIZABETHTON. — All points within a 15-mile diameter circle with center at Wilbur Dam. 29 Dec.; 6:30 a.m. to 6:00 p.m. Overcast to clear; Temp. 14° to 30°. Eight observers in five parties. Total party-hours, 38 (32 on foot, 6 by car); total party-miles 112 (23 on foot, 89 by car). Mr. and Mrs. John Barnitz, Fred W. Behrend, J. C. Browning, Ed Davidson, Kenneth Dubke, Roby D. May, Jr. and Grace Rowe. (Compiler Lee R. Herndon).

ROAN MOUNTAIN. — Carver's Gap - Round Bald - Carver's Gap - Balsam Road - Gardens - return to Carver's Gap by way of paved road. Elevation 5,500-6,200 feet; coniferous forest 70%, grassbald 20% and briar-rhododendron-alder 10%. 20 Dec.: 8:00 a.m. to 5:00 p.m. Clear, distant haze; temp. 4° to 18°; wind NW, 5-25 m.p.h.; from broken cover of snow on bald to 15 inches in Gardens. One observer. Total hours, 9; total miles 9, all on foot. Ruffed Grouse, 1; Blue Jay, 2; Common Raven, 2; Common Crow, 35; Chickadee (Sp.?), 1; Red-breasted Nuthatch, 23; Cedar Waxwing, 1; Evening Grosbeak, 8; Pine Siskin, 55; Red Crossbill, 2; White-winged Crossbill, 88; Carolina Junco, 7. Total species, 12; total individuals, 225. Fred W. Behrend.

ROUND TABLE NOTES

THE FIRST NASHVILLE CHRISTMAS CENSUS. — Since the 1963 census was my 50th at Nashville, it might be of interest to publish the first one. The date was 26 Dec. 1914, about 10 months prior to the founding of the T. O. S. The count was made by me alone for at that time I did not know of anyone else at Nashville who was likewise interested. My original listing card says that although the sky was clear, it was bitter cold, the thermometer reading 14 to 26 above, a north wind, the ground frozen and covered with a light snow. I took the train to Harding 7 miles west, got off at 7:30 a.m. and walked cross-country eastward to the Overton hills and Glendale, boarding the street car there in late p.m. following the 10 mile hike. The 30 species listed on my card were as follows: — Black Vulture, 8; Turkey Vulture, 1; Red-tailed Hawk, 2; Sparrow Hawk, 3; Bobwhite, 12; Kildeer, 26; Mourning Dove, 28; Flicker, 7; Red-bellied Woodpecker, 2; Yellow-bellied Sapsucker, 3; Downy Woodpecker, 3; Horned Lark, 312; Common Crow, 25; Carolina Chickadee, 10; Tufted Titmouse, 3; White-breasted Nuthatch, 1; Bewick's Wren, 1; Carolina Wren, 6; Mockingbird, 10; Bluebird, 5; Ruby-crowned Kinglet, 1; House Sparrow, 100; Meadowlark, 127; Cardinal, 17; Towhee, 5; Savannah Sparrow, 7; Field Sparrow, 60; White-throated Sparrow, 5; Swamp Sparrow, 3; and Song Sparrow, 60. Six birds were secured with my 410 gun, for the purpose of preparing study skins. The list was sent to **Bird Lore** for publication but thru some mishandling, did not appear in print. A year later, a similar list, made by A. C. Webb and myself, was published as were others in the years that followed.

ALBERT F. GANIER, 2112 Woodlawn Dr., Nashville 12.

WHITE-WINGED CROSSBILLS IN GREAT SMOKY MOUNTAINS NATIONAL PARK. This note is to record the occurrence of White-winged Crossbills (*Loxia leucoptera*) in the vicinity of Newfound Gap, Great Smoky Mountains National Park, on three consecutive days in late December, 1963. On 28 December Park Ranger Larry E. Hanneman observed four of these birds feeding on the ground with a small flock of Evening Grosbeaks close to US 441 at a point approximately one-half-mile below Newfound Gap (Tenn. side). Hanneman who comes from Wisconsin where he was familiar with White-winged Crossbills stated that the birds were approximately 50 ft. away and that two of the four were rosy-pink males. The other two lacked the rosy-pink color but were of the same size and had the same broad white wing-bars. Next day, 29 December, Mr. and Mrs. George R. Wood (Knoxville, Tenn.) while engaged in taking the annual one-day count of winter birds in the park counted 15 White-winged Crossbills within a few hundred yards of Newfound Gap — just across on the North Carolina side. On 30 December, Park Naturalist Henry W. Lix while driving up to Newfound Gap, noted two male White-winged Crossbills close to where Ranger Hanneman had observed these birds two days previously. Mr. Lix reported viewing the birds at close range while they perched in some pin cherry trees close to the transmountain road; the distinctive rosy-red color and the prominent white wing bars were seen to good advantage.

The only previous records of White-winged Crossbills in Great Smoky Mountains National Park are mentioned in my **Notes on the Birds of Great Smoky Mountains National Park** (1963); the account reads as follows:

"Two observations, both made at Newfound Gap (5040 ft.) in December 1955, represent the sum total of our records for the White-winged Crossbill. Lix, using binoculars, watched one of these birds at a distance of 40-50 ft. on December 6. It was with a flock of Red Crossbills. Liles (James E.), on December 24, reported three birds in the same area."

ARTHUR STUPKA, Great Smoky Mountains National Park, Headquarters, Gatlinburg.

GOSHAWK NEAR GREAT SMOKY MOUNTAINS NATIONAL PARK.

— The first record of a Goshawk (*Accipiter gentilis atricapillus*) for the vicinity of Great Smoky Mountains National Park was established 19 December, 1963 when one of these birds was shot by Walter A. McCarter at his home in the Glades community — approximately two miles northeast of Gatlinburg, Tennessee and approximately one mile north of the Great Smoky Mountains National Park. The big hawk, an adult in the blue-gray plumage, had been harassing poultry at the McCarter property. The specimen was donated to the National Park.

According to articles published in *The Migrant*, a listing of which was kindly prepared for me by Dr. Lee R. Herndon, there are four records of the Goshawk for the region of Nashville, Tennessee, and vicinity:

- 1) October 19, 1918 (Ganier, 1937)
- 2) December 13, 1939 (Ganier, 1940)
- 3) March 19, 1941 (Laskey, 1941)
- 4) January, 1946 (Schreiber, 1945)

In addition, Dr. Herndon in his account of the birds of Carter County, Tennessee (1950) gives the following records of this large hawk for Elizabethton and vicinity:

- 1) October 1, 1944
- 2) September 28, 1947
- 3) September 25, 1948.

There appear to be no other Tennessee records of this rare visitor from the north. The latest revision of Pearson, Brimley and Brimley "Birds of North Carolina" (1959) gives no records of the Goshawk for that state.

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ARTHUR STUPKA, Great Smoky Mountains National Park, Headquarters, Gatlinburg.

MID-SOUTH WHIP-POOR-WILL DISTRIBUTION RUNS - 1963.— Ducks and the O. Y. Condors each heard a Whip on 31 Mar. B. B. Cooper, while in the Grenada, Miss. area, heard his first, a.m. 30 Mar. Migration in Overton Park only fair. At two places NNW of Dyersburg (Obion R. bluff) and in a woods W/S the Spillway, Reelfoot, a Whip was heard 3 May. Possibly late transients; two trips to record them on later dates were failures; on a third try we didn't even get out of town, — all because of stormy weather. Whips still fairly common, Huntington-Reagan, Cedar Grove-Cub Lake areas, Tenn., 18/19 June. Three attempts at a Shelby County record produced none, the nearest being near Williston (8 May & 7 June).

Working the southern limits: On 11 May just inside Attala County, Miss. from Vaiden, we heard a Whip, first for that Hwy. 35 stretch, then later I found the one in SW Winston County (4th season), my farthest south summer bird. Ouachita low elevation valley highways worked 8/9 June, — Perryville W. on Ark. 60 to Ark. 27, Danville, Magazine, Paris, New Blaine. No Whips heard just W. of Perryville (as in 1962) but one each at 3 or 4 stops going into Fourche Jct. West from there and new route: one at 5 miles (in Carter Cove) and one, 4.7 miles E. of Magazine. None on Petit Jean S. P. Mtn. 3/4 July. Working western limits of the Whip's summer range, Mrs. Coffey and I tried Miami, Okla., — Siloam Springs and (7 July a.m.) the Stillwell, Okla., area. Chucks called fairly well nights but those Whips I spotted, only called just before dawn. Early 5 July along US 59, 3 heard (2 stops) in area 11 miles and 2 in area 7 miles W. of Siloam Springs. Rechecked — no calling dusk 5 July at first stop; calling pre-dawn 6 July at last stop.

BEN B. COFFEY, JR., 672 N. Belvedere, Memphis 7, Tenn.

RED PHALAROPE IN GREENE COUNTY. — The Red Phalarope (*Phalaropus fulicarius*) is primarily a coastal transient and maritime species during the winter, therefore an inland occurrence, especially in the spring, should be noted. On 28 April, 1963, while taking the annual spring census in Greene County we stopped to count Sandpipers around a small pond in a barnyard close to the road, not more than 25 feet away. We were surprised to see one of the birds swimming and turning in small circles. For the next 15 minutes we watched closely from a distance of about 10 feet. We were in an automobile and apparently our presence did not disturb the birds. The head was dark over the top, a white patch around the eye, the larger amount more behind the eye, a slight dark or dusky streak through the eye. The nape was yellowish-brown and the back a mottled brown. What little we saw of the legs was yellowish, and the bill was flat, short and heavy and appeared to be a little lighter in color near the base. When we tried to leave the car to see more the birds, there were two, flew. We consulted Peterson's **Field Guide to the Birds** and Audubon's **The Birds of America**.

Other mention of Phalaropes in Tennessee and nearby places have been made on 17 Dec., 1944, one dead Red Phalarope near the Park headquarters building (MIGRANT 15, 69-71, 73, 1944); one Red Phalarope on 1 Oct., 1949 on Fontana Reservoir (NOTES ON THE BIRDS OF GREAT SMOKY MOUNTAINS NATIONAL PARK — STUPKA p. 63); two Northern Phalaropes on 21 Oct., 1959 on Bush Lake (MIGRANT 30, 55, 1959); 29 Nov., 1959 one Red Phalarope found dead under the power lines leading

into the Aluminum Company at Maryville (MIGRANT 30, 56, 1959); another case of the presence of a Phalarope in Tennessee was on 1 Nov., 1959 at Long Savannah flats near Chattanooga, because of disagreement as to species name this bird was not identified (MIGRANT 30, 55, 1959). In May of 1955 another Phalarope was seen in Greene County, but as in the case of the Chattanooga bird, no species identification was made. The two Greene County occurrences were in the spring following severe storms along the Atlantic coast with winds blowing inland.

MRS. WILLIS CLEMENS, Greeneville.

WINTER VISITANTS. — A remarkable influx of northern birds at early dates made bird observation in contrast to the previous winter very interesting during the present cold weather season.

Flocks of Pine Siskins, up to 30 or 40 in the average, were noted as early as 13 Oct. at 5,700-6,000 ft. elevation in the coniferous forest in the Balsam Road vicinity.

Evening Grosbeaks, in flocks of about 30 and small size, were first heard and seen 3 Nov. and have been observed regularly since.

A pair of Purple Finches were seen feeding in a balsam tree at 5,500 Ft. 20 Oct.

Red Crossbills were heard but not seen 17 Nov. and 20 Dec., one on the first date, two on the latter.

An abundant crop of balsam seeds accounted for the presence of a large number of Red-breasted Nuthatches, a species the year around on Roan Mt.

The most interesting find was that of White-winged Crossbills, for the first time, on Roan Mt. at elevation 5,500-6,000 ft. They were observed only on the Carolina side. A total of 88 was listed in several flocks and individuals on my Christmas Bird Count 20 Dec.

FRED W. BEHREND, 607 Range St., Elizabethton.

SANDHILL CRANES IN BLOUNT COUNTY.—On 8 December 1962 Mr. and Mrs. Merritt C. Farrar, Mrs. Jim Campbell and the writer were driving towards the Great Smoky Mountains National Park on State Highway 73 in Blount County when a group of birds a great distance away were observed flying towards us. Our first opinion was that the birds were Canada Geese since they were flying in a V formation, but upon getting out of the car we all quickly noticed their long legs were trailing behind and Mr. Farrar was the first to notice the birds outstretched necks. The poor light conditions at the time precluded any color determination but the straight long necks, long trailing legs, straight long bills, and large overall size made a conclusive identification of Sandhill Cranes (*Grus canadensis*).

This group, which numbered thirteen, is not the largest to be reported in the state. A check of the past issues of THE MIGRANT found a few articles telling of other large flights observed in East Tennessee, but it would appear that such observations were infrequent enough to arouse plenty of excitement for the viewer.

When last seen, the Cranes were flying across Chilhowee Mountain in a southwesterly direction which would have taken them across (or in, if they came down) the Great Smoky Mountains National Park if the flight continued in the same direction as we last observed.

The writer was keenly disappointed in not being able to follow the Cranes long enough to determine if they did cross the Park boundary (a map check showed that at the last flight direction seen the Cranes would have crossed a portion of the Park) since Arthur Stupka's NOTES ON THE BIRDS OF GREAT SMOKY MOUNTAINS NATIONAL PARK published in 1963 does not list a single observation of the Sandhill Crane.

JAMES M. CAMPBELL, 15 Hedgewood Drive, Knoxville 18, Tennessee.

BROWN-HEADED NUTHATCH IN CHICKAMAUGA PARK, GA.—The Brown-headed Nuthatch (*Sitta pusilla*) was seen 4 January 1963 in Chickamauga Park, several miles south of the Tennessee line. It was in a mixed pine and hardwood forest on the edge of a large field (Brock Field) in the park. My attention was drawn to it by the distinctive call notes which were remembered from past experience in South Carolina. I also got an excellent view of it in good light. That section of the park has a lot of pine but oddly enough we haven't come upon it in the past though work has been done in the area often in the search for the Red-cockaded Woodpecker.

The next day, Carol and Stan Barr went into the same area and located the bird again. The Wests checked the area later but were unable to find the bird.

ROCK L. COMSTOCK, JR., 806 Penola Drive, Richmond, Virginia.

MRS. ROBERT J. DUNBAR 4-11-1900 to 12-7-1963.

The death of Clara Dunbar on December seventh was a great personal loss to me and to her many friends. Clara had a rare combination of warmth and quiet dignity, and a quick responsiveness which bridged gaps of time and distance.

Her friends in T. O. S. will remember her as a delightful companion and an accurate bird observer with keen eyes and ears. Though Clara did not like organizations her interest in birds prompted her to do any amount of work for T. O. S. because it helped the cause of ornithology. Her enthusiasm carried over to many friends who had never noticed birds before.

In our grief at losing Clara many of us will look back with appreciation over the years of her companionship, and be glad to remember that her cheerful and unselfish spirit remained up to the last.

MURIEL B. MONROE, 1424 Tugaloo Drive, Knoxville 19.

Whooping Crane news.—We are all interested in the survival story of these big birds which winter on the Texas Gulf coast and have read with interest an Associated Press story from northwest Canada (their breeding ground) that "the world population of wild Whooping Cranes has increased by three — to 31. The Canadian Wildlife Service reports that three fledglings, including twins, were sighted at the nesting grounds in Wood Buffalo National Park, on the Alberta-Northwest Territories border." For years, conservation organizations have made every effort to post people along their migration route, to afford them full protection.

INFORMATION PLEASE

PEREGRINE FALCON NESTING SITES. — An attempt is being made to determine the present status of the Peregrine Falcon nesting sites east of the Mississippi River. It would be very much appreciated if anyone who has visited known eyries of this species during the past ten years would communicate with the author.

There has been a drastic decline of this breeding population in the eastern U. S. in the past decade, hence I am particularly interested in learning about not only active sites at the present time, but also of any observations on eyries that have been abandoned or are known to have produced no young.

PROF. JOSEPH J. HICKEY, The University of Wisconsin, 424 Farm Place, Madison 6, Wis. 53706.

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