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THE MIGRANT

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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.

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NO. 2

A BRIEF PRELIMINARY STUDY OF NESTING RED-WINGED BLACKBIRDS

BY CHARLES R. SMITH

The Red-winged Blackbird, *Agelaius phoeniceus* (Linnaeus), has been a very popular subject for study by many ornithologists. Also, for the last nine years the Bureau of Sport Fisheries and Wildlife of the United States Fish and Wildlife Service has been engaged in an intensive study of all aspects of the Red-winged Blackbird's life history. The Cooperative Red-winged Blackbird Nestling Banding Program has been an important part of the Fish and Wildlife Service's study, and it was through this program that the author became interested in the nesting habits of the Red-winged Blackbird.

THE AREA

The area in which this study was conducted consists of approximately ten acres of damp, marshy bottomland lying between 1540 and 1560 feet above sea level along Buffalo Creek in Carter County, Tennessee. Bordered on the north by the Milligan College athletic field, the south and east by limited residential areas, and the west by a narrow county road and Buffalo Creek, this area provides a convenient, easily accessible and limited area for study. A large spring at its southwest edge is the source of the water that creates the habitat. The same narrow paved road that borders the marsh on the west also divides it into north and south sections (Figure 1). The south section (Figure 3), being closer to the water source, is usually covered to a depth of approximately six inches by water throughout the nesting season. A drainage ditch has reduced the north section (Figure 2) to merely a damp area, with standing water during periods of heavy rain, which was the weather condition during most of this project. (Marshy or damp areas lie within shaded areas as shown in Figure 1.) Thick grass and other marsh vegetation covers both sections with a few trees scattered throughout the south section. The north section was pastured with cattle during the period included in this study.

PROCEDURE — RESULTS

The first nesting activity was noted on 16 April 1967, with a nest under construction in the south section of the marsh. By the end of April, a total of five nests was found, with five more being added within the first two weeks of May. Further investigation indicated that there were ten females

The above paper was submitted as partial freshman biology requirements to the Department of Biology, East Tennessee State University, Johnson City—Eds.

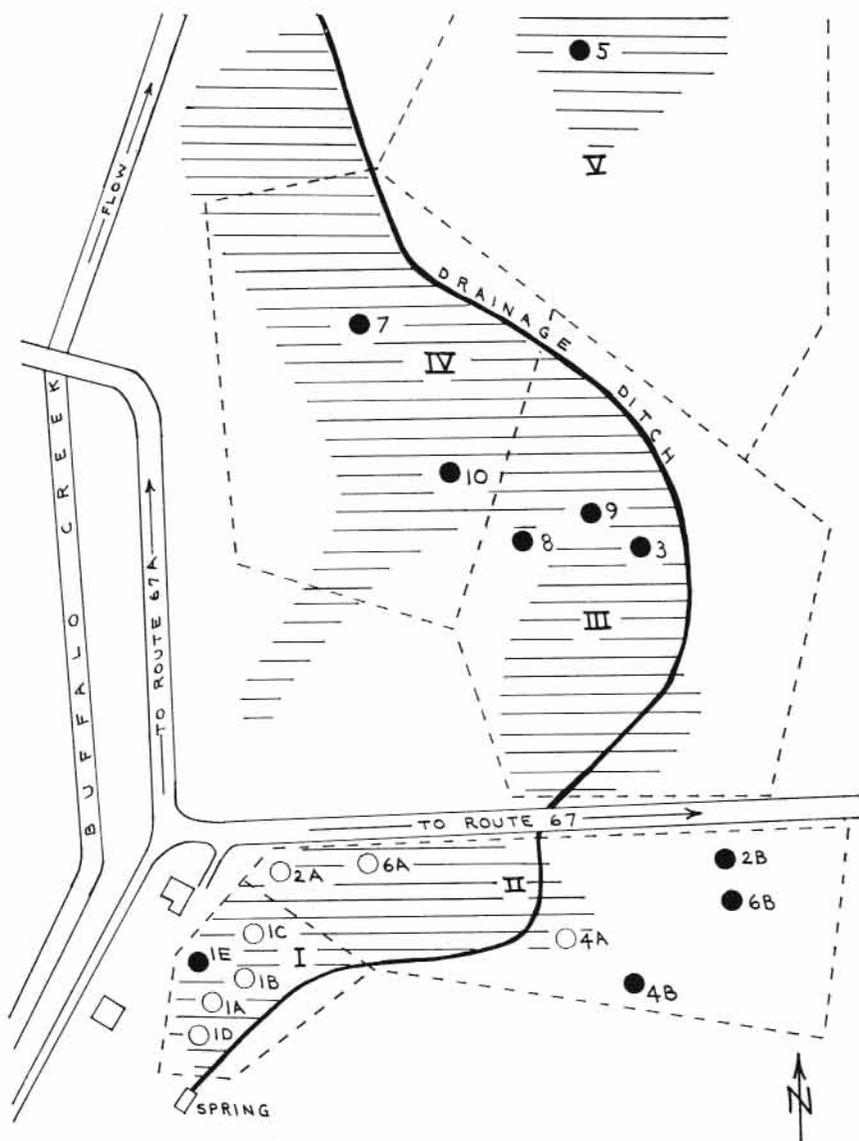


Figure 1. UNSHADED CIRCLE—unsuccessful nest; SHADED CIRCLE—successful nest; HORIZONTAL LINEATION—marshy area; DOTTED LINEATION—approximate territorial boundaries; SQUARES—houses or other buildings; ROMAN NUMERALS—territorial designation; ARABIC NUMERALS—nest designation.



Figure 2. NORTH SECTION OF THE MARSH. LOOKING NORTH FROM THE DIVIDING ROAD.



Figure 3. SOUTH SECTION OF THE MARSH. LOOKING SOUTH FROM THE DIVIDING ROAD.

attempting to nest in the area and that there were five males defending territory. A territory in this case consists of that area which is used for mating and nesting and which is frequented by only one male of the species, with other males of the same species being excluded from the chosen territory by combative means, if necessary. Since the Red-winged Blackbird is known to be polygamous in some instances, a territory may contain more than one female. The males and the number of females that they controlled were designated as follows: Male I—Female 1; Male II—Females 2, 4, and 6; Male III—Females 3, 8, and 9; Male IV—Females 7 and 10; Male V—Female 5. The numbers that designate the females actually indicate the order in which the nests were found. Renesting attempts of a female were designated by that individual's number followed by a letter of the alphabet corresponding to the attempt (e.g. 1A, 1B, etc.). In Figure 1, shaded circles indicate successful nesting efforts, while unshaded circles indicate unsuccessful nesting efforts. The extent of the territories of the males was established through direct observation of their attitudes within a given area and toward each other. Other species, especially the Starling, *Sturnus vulgaris* Linnaeus, were often chased from a territory. On at least two occasions, another male Red-winged Blackbird (apparently unmated) was driven from the corresponding territories of Males I, II, and III; however, actual territorial conflicts among established males were seldom noted. The territories of the five males studied and the relative locations of nests within them are indicated in Figure 1, with the boundaries of the territories indicated by dotted lines. Observations showed that the less aggressive males were forced into less suitable habitats and maintained fewer females. In this case, Males I, IV, and V appeared to be the less aggressive members of this small nesting group.

Weather and predators of an undetermined nature destroyed seven nests. As a result, four females made two or more nesting attempts. Those females which made more than one nesting attempt and the number of nesting attempts made are as follows: Female 1—five; Female 2—two; Female 4—two; Female 5—two; Female 6—two. In each of these cases the final effort was successful. All of the

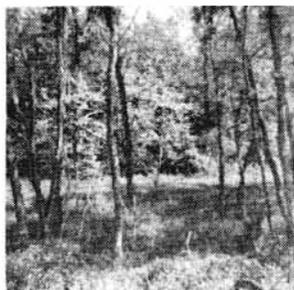


Figure 4
TERRITORY I
LOOKING SOUTHEAST

Figure 5
TERRITORY II
LOOKING EAST

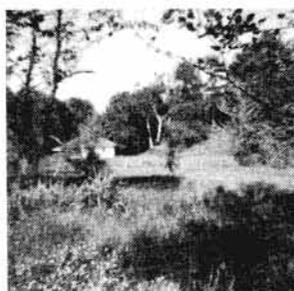


Figure 6
TERRITORY III
LOOKING NORTHEAST

Figure 7
TERRITORY IV
LOOKING NORTH



Figure 8
TERRITORY V
LOOKING NORTHEAST

to be frequented often by Muskrats, *Ondatra zibethica*. The tree in which Nest 2A was located was uprooted by a windstorm, destroying the nest, and Nest 6A was evidently too high to have been the victim of Muskrat predation since measurements showed that it was six feet up in a small tree (average nest height was approximately thirteen inches for all nests found). A nesting attempt was considered successful if at least one young bird survived to leave the nest. Of the seventeen nests which were found during the period of study, 41.2% were successful and 58.8% were unsuccessful, producing no young which survived to leave the nest. An even greater difference in percentages is noted when one considers the total number of eggs laid and the actual number that hatched. Eighty-eight eggs were produced from the seventeen nests studied, with from two to four eggs per clutch. Of these eighty-eight eggs, 38.6% hatched and 61.4% failed to hatch. It is presently unknown to the author whether or not such a high mortality rate is characteristic of this species or the exact relationship between mortality and habitat selection. However, in this case, mortality was greater in the damper south section of the marsh. Although the evidence is inconclusive at this time, this would seem to indicate that the dryer portions of the habitat are more conducive to nesting success.

On two occasions, feeding of nestlings was observed and frequency of feeding was recorded. During a period of one hour on 17 May, feeding of three nestlings in Nest 8 was observed. During this period, both male and female fed the young, with trips to the nest often being only thirty seconds apart. The young were approximately six days old. Although Male III had two other nests in his territory, this was the only nest with large young on that date. A total of twenty-four trips was made to the nest during the one-hour period of observation. On 4 June, a similar observation was conducted involving Nests 2B and 4B. Only the females fed the young during this period. Both nests were in the territory of Male II, but both nests also contained young approximately six days old. Nest 2B had three young and Nest 4B had four young. During the one-hour period, Female 2 visited the nest fifteen times and removed fecal wastes six times; Female 4 visited her nest thirteen times and also removed fecal wastes six times. Comparison of these results with those of Nest 8 suggests that the assistance of the male approximately doubles the frequency of visits to the nest. The degree to which the male cares for the young may be influenced by the number of nestlings to be cared for. Male II, with two nests of young of approximately the same age, did not visit either nest during the period of observation. On the other hand, Male III, with only one nest of large young, assisted the female consistently in caring for the young.

An aspect of territory which was noted only once was the apparent possession of a feeding territory by a female within the territory of the male. On at least one occasion, Female 8 repeatedly chased Females 3 and 9 from an area in which she was gathering food for her young; however, observation of a similar placement of nests in Territory II indicated no such antagonism among females. This could be just a peculiarity of the individual bird; however, it justifies further investigation. Other peculiarities might be noted and a pattern of behavior established in this respect.

(Concluded on Page 45)

THE 1967 SPRING FIELD DAYS

BY T.O.S. MEMBERS

Counts were submitted from a total of thirteen areas across Tennessee. The total number of species seen for the count was a very high 206. Knoxville's count led all others with a total of 152 species. They were followed closely by Chattanooga with 151. The lowest count in the State was 48 from Lebanon.

INFORMATION ON THE COUNTS

In the species tabulation and description that follow, the localities are listed from west to east. The species are in AOU Check-list order in the table.

MEMPHIS—Counts were taken in the locality of Shelby Forest State Park and Booker, Arkansas. 30 April 1967; weather: cloudy to partly cloudy with temperatures ranging from 67°F to 73°F; total: 85 species. Compiler: Ben B. Coffey.

REELFOOT—Counts were taken on the lake and adjacent areas within the limits of the Christmas Bird Count. 29 April 1967; 6:30 A.M. to 6:00 P.M.; weather: partly cloudy with wind gusty from 0-20 mph; total: 122 species. The Mallards were the semi-domesticated wild stock birds at Reelfoot State Park and at Samburg. The Blue Goose was a young bird which, apparently, had gotten separated from its kind during the spring migration and had become semi-domesticated with the Mallards. Fifteen observers in five parties: Gwen Burrus, Ben Coffey, Lula Coffey, Mary Louise Cypert, Helen Dinkelspiel, Darrell Hanna. Mrs. Darrell Hanna, Kenneth Leggett, Ben Lindamood, Helen Lindamood, William E. Lindamood, Alice Smith, Noreen Smith, Betty Sumara. Compiler: Eugene Cypert.

PARIS LANDING STATE PARK—Land Between the Lakes, Fort Donelson National Military Park and Paris Landing State Park. 6 and 7 May 1967; weather: cloudy with occasional drizzle and temperatures from 58°F to 68°F; total: 135 species. Observers: approximately 150 members and guest of the Tennessee Ornithological Society attending the annual state meeting. Compiler: Ben B. Coffey.

SAVANNAH—30 April 1967; weather: cloudy in the morning, little wind with temperatures from 55°F to 75°F; total: 102 species. The Slate-colored Junco was two weeks later than any other record here. It had a conspicuous bulge on the nape of the neck. Observers: David Patterson, Mike Patterson, Norma Patterson, Andrew Rimmer, John Williams, Bob Wint, Wendell Wint. Compiler: David Patterson.

COLUMBIA—2 and 3 May 1967; weather: clear with temperatures from 35°F to 70°F and the wind NW 5-15 mph; total: 143 species. In a flooded marsh and plowed field near the Monsanto Chemical plant and its many large lakes and ponds we found a Willet and eight Willets at the Airport Lake. Six Dunlin, four dowitcher, and six Black-bellied Plover, all were observed at Monsanto. These represent the first records in the last seven years of the Willet and Dunlin and the second records of the Black-bellied Plover and dowitcher. Observers: Dr. and Mrs. Fuqua, Dr. and Mrs. Daniel Gray, Mrs. George R. Mayfield, Jr. Compiler: Dr. George R. Mayfield, Jr.

NASHVILLE—Extending from Old Hickory Lake to the northern part of Williamson County and to the Ashland City Marsh, the same area worked in recent years. 22 April 1967; weather: fair and warm with some pre-dawn showers; total: 133 species, 1 hybrid. The hybrid, a Brewster's Warbler, was found in the Fernvale area of Williamson County by Miss Annella Creech and

TABULAR RECORD OF SPRING FIELD DAYS 1967

	Memphis	Reelfoot	Pate Landing	Savannah	Columbia	Nashville	Burwell	Lebanon	Coatesville	Chattanooga	Knoxville	Kingsport	Elizabethton
Common Loon	--	--	--	--	--	--	--	--	--	4	--	2	1
Red-throated Loon	--	--	--	--	--	--	--	--	--	--	1	--	--
Pied-billed Grebe	--	4	2	1	4	12	--	--	--	6	3	2	2
Double-crested Cormorant	--	1	--	--	--	--	--	--	--	--	--	--	--
Great Blue Heron	--	11	1	--	1	--	--	1	--	4	2	1	--
Green Heron	1	1	10	4	8	10	--	3	--	21	24	3	6
Little Blue Heron	--	37	--	--	1	--	1	--	--	1	1	--	--
Common Egret	--	10	--	--	--	2	--	--	--	2	--	--	--
Black-crowned Night Heron	--	--	--	--	--	--	1	--	--	--	11	--	--
Yellow-crowned Night Heron	--	12	--	--	1	--	--	--	--	2	3	--	--
Least Bittern	--	1	--	--	--	--	--	--	--	--	--	--	--
American Bittern	--	3	4	--	1	--	--	--	--	6	1	1	1
Canada Goose	1	--	--	--	--	--	3	--	--	2	--	--	--
Blue Goose	2	1	--	--	--	--	--	--	--	--	--	--	--
Mallard	--	129	12	--	9	8	2	--	--	3	--	--	2
Black Duck	--	--	3	--	--	--	--	--	--	3	2	--	--
Gadwall	--	2	--	--	--	--	--	--	--	1	11	--	--
Blue-winged Teal	2	92	3	--	17	52	--	--	--	18	16	2	2
American Widgeon	--	--	--	--	4	--	--	--	--	1	--	--	--
Shoveler	--	1	4	--	1	44	--	--	--	4	2	--	2
Wood Duck	1	13	11	--	3	17	--	30	--	20	35	13	7
Ring-necked Duck	--	--	--	--	--	30	--	--	--	--	7	1	1
Greater Scaup	--	--	--	--	--	--	--	--	--	97	--	--	162
Lesser Scaup	--	50	45	2	24	127	--	--	--	207	3	5	1
Common Goldeneye	--	--	--	--	--	--	--	--	--	--	--	--	35
Bufflehead	--	--	--	--	--	1	--	--	--	--	--	--	22
Ruddy Duck	--	2	--	--	6	8	--	--	--	13	--	--	--
Hooded Merganser	--	--	--	1	--	--	--	--	--	--	--	--	--
Common Merganser	--	--	1	--	--	--	--	--	--	--	--	--	--
Red-breasted Merganser	--	1	1	--	1	--	--	--	--	1	--	--	1
Turkey Vulture	--	11	19	6	4	52	3	--	2	6	1	7	3
Black Vulture	2	5	--	1	4	20	--	4	--	4	--	--	--
Mississippi Kite	1	--	--	--	--	--	--	--	--	--	--	--	--
Sharp-shinned Hawk	--	--	--	--	--	--	--	--	--	--	1	--	4
Cooper's Hawk	--	--	--	--	--	2	--	--	1	1	2	--	--
Red-tailed Hawk	--	--	1	1	3	9	1	1	--	4	4	2	--
Red-shouldered Hawk	--	3	1	--	1	1	--	--	--	3	--	--	--
Broad-winged Hawk	--	--	3	1	1	6	--	--	2	7	--	--	--
Marsh Hawk	--	--	--	--	--	1	--	--	--	2	--	--	--
Osprey	--	2	1	--	--	8	--	--	--	--	4	--	1
Sparrow Hawk	--	--	1	--	7	16	1	--	1	3	1	2	1

	Memphis	Roofoot	Pate Landing	Swannak	Columbia	Washville	Bonnell	Lakeland	Cantonsville	Chattanooga	Knoxville	Kingsport	Elizabethton
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	1	--
Bobwhite	1	5	62	32	41	96	11	27	35	92	166	45	42
Turkey	3	2	--	--	--	--	--	--	--	--	--	--	--
King Rail	--	--	--	--	--	--	--	--	--	4	--	--	--
Virginia Rail	--	--	--	--	--	--	--	--	--	1	--	--	--
Sora	--	2	--	--	1	1	--	--	--	17	--	--	--
Common Gallinule	--	1	--	--	--	--	--	--	--	--	1	--	--
American Coot	12	177	6	3	75	87	7	--	3	331	16	3	7
Semipalmated Plover	--	10	--	--	2	2	--	--	--	--	1	1	--
Killdeer	2	25	24	11	17	24	5	2	3	53	45	1	4
Black-bellied Plover	--	2	--	--	6	--	--	--	--	--	--	--	--
American Woodcock	--	--	--	1	4	--	--	--	--	--	3	--	--
Common Snipe	--	2	--	6	6	12	--	--	2	15	12	1	4
Spotted Sandpiper	11	2	25	6	19	5	2	--	--	11	17	3	3
Solitary Sandpiper	--	28	1	--	3	3	--	--	--	8	27	7	1
Willet	--	--	--	--	9	1	--	--	--	--	--	--	--
Greater Yellowlegs	--	27	--	--	3	--	--	--	--	1	--	4	--
Lesser Yellowlegs	--	175	9	--	38	3	--	--	--	2	5	16	2
Pectoral Sandpiper	--	210	--	--	3	1	--	--	--	--	--	--	--
Least Sandpiper	--	--	7	--	12	--	--	--	--	--	7	23	--
Dunlin	--	--	--	--	6	--	--	--	--	--	1	--	--
Short-billed Dowitcher	--	4	--	--	4	--	--	--	--	--	--	--	--
Semipalmated Sandpiper	--	--	4	--	3	--	--	--	--	--	--	--	--
Herring Gull	--	--	3	--	--	--	5	--	--	2	--	--	--
Ring-billed Gull	--	--	--	45	1	3	2	--	--	5	--	--	5
Forster's Tern	--	--	3	--	2	--	--	--	--	--	--	--	--
Common Tern	--	3	4	--	6	--	--	--	--	--	--	--	--
Black Tern	--	--	2	--	1	--	--	--	--	--	--	--	--
Mourning Dove	4	58	55	43	26	135	7	13	93	181	281	62	68
Yellow-billed Cuckoo	1	2	12	--	1	8	--	5	4	5	4	3	1
Black-billed Cuckoo	--	--	1	--	--	--	--	--	--	--	--	1	8
Screech Owl	--	--	--	--	1	--	--	--	1	3	2	2	--
Great Horned Owl	--	--	--	--	1	--	--	--	--	1	--	--	--
Barred Owl	--	5	2	--	2	5	--	--	--	--	--	--	--
Chuck-will's-Widow	--	--	5	1	1	5	2	2	1	7	12	1	--
Whip-poor-will	--	--	2	5	5	19	--	--	2	8	6	1	1
Common Nighthawk	--	1	2	1	2	4	6	--	--	15	8	25	4
Chimney Swift	8	36	55	32	150	123	12	15	103	159	274	49	98
Ruby-throated Humming Bird	13	13	7	1	1	5	1	--	2	15	9	--	3
Belted Kingfisher	1	1	3	1	11	12	2	--	1	13	12	6	5
Yellow-shafted Flicker	3	9	12	6	--	18	--	1	24	80	72	10	61
Pileated Woodpecker	3	15	5	6	4	23	2	--	6	9	25	4	8

	Memphis	Reelfoot	Paris Landing	Savannah	Columbus	Marksville	Bemell	Lebanon	Cockeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Red-bellied Woodpecker	16	14	26	4	20	65	--	6	11	36	42	7	11
Red-headed Woodpecker	18	27	8	3	4	3	--	--	17	9	20	1	1
Yellow-bellied Sapsucker	--	--	--	--	--	1	--	--	2	3	--	--	3
Hairy Woodpecker	2	3	2	--	1	3	--	1	6	4	7	1	--
Downy Woodpecker	10	7	23	3	16	30	--	5	19	20	37	8	11
Eastern Kingbird	1	32	22	16	22	38	4	13	9	26	38	16	16
Great Crested Flycatcher	4	46	21	12	8	22	--	3	7	24	78	14	9
Eastern Phoebe	1	5	3	2	9	41	--	6	5	14	56	4	26
Acadian Flycatcher	12	2	5	2	7	4	--	--	--	1	7	6	1
Traill's Flycatcher	--	--	--	--	--	--	--	--	--	--	--	1	--
Least Flycatcher	--	--	--	--	--	--	--	--	--	1	--	--	10
Eastern Wood Pewee	14	15	28	11	11	6	1	2	3	28	22	16	3
Horred Lark	3	28	--	3	15	4	--	--	--	3	17	1	4
Tree Swallow	8	1487	1	--	8	--	4	--	6	28	2	2	9
Bank Swallow	--	12	5	--	4	--	3	--	7	--	--	--	2
Rough-winged Swallow	--	117	29	21	35	24	6	--	2	67	74	8	26
Barn Swallow	4	45	66	24	63	117	9	66	37	98	198	30	67
Cliff Swallow	--	--	280	170	2	22	3	2	5	75	1	--	--
Purple Martin	1	18	5	7	5	90	--	38	5	323	140	55	10
Blue Jay	10	15	64	34	41	208	17	92	145	293	330	82	197
Common Crow	5	83	28	13	14	93	39	19	46	121	188	49	109
Fish Crow	1	6	--	--	--	--	--	--	--	--	--	--	--
Carolina Chickadee	27	57	45	7	33	114	8	21	23	70	117	30	28
Tufted Titmouse	37	47	39	14	23	125	3	23	34	78	128	47	53
White-breasted Nuthatch	--	1	1	2	2	8	--	--	--	4	4	2	2
Red-breasted Nuthatch	--	--	2	--	--	--	--	--	--	6	1	--	--
Brown Creeper	--	--	--	--	--	--	--	--	--	--	--	1	--
House Wren	--	--	--	--	--	2	--	--	6	--	2	19	14
Winter Wren	--	--	--	--	--	--	--	--	--	1	--	--	--
Bewick's Wren	--	--	4	1	1	6	--	6	7	2	--	1	--
Carolina Wren	41	44	40	5	7	40	--	8	10	65	130	20	38
Long-billed Marsh Wren	--	--	--	--	--	--	--	--	--	1	1	--	--
Short-billed Marsh Wren	--	--	--	--	--	--	--	--	--	--	3	--	--
Mockingbird	5	21	9	29	37	176	3	75	69	206	364	49	121
Catbird	3	4	19	8	19	17	7	6	29	60	71	6	32
Brown Thrasher	12	4	24	20	21	82	--	31	39	82	93	3	59
Robin	4	9	33	23	19	134	3	39	81	296	297	55	240
Wood Thrush	24	4	47	12	15	38	--	--	15	101	118	43	58
Hermil Thrush	--	--	1	--	--	--	--	--	--	1	1	--	1
Swainson's Thrush	18	1	27	1	6	2	--	--	1	1	11	8	--
Gray-cheeked Thrush	3	--	3	--	--	--	--	--	--	--	--	--	--
Veery	--	--	7	1	6	--	--	--	7	3	1	--	1

	Memphis	Beaflast	Paris Landing	Savannah	Columbia	Nashville	Baxwell	Lebanon	Cookeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Eastern Bluebird	1	19	44	18	22	140	2	31	54	52	95	7	18
Blue-gray Gnatcatcher	33	93	52	11	53	77	13	--	3	24	55	6	4
Ruby-crowned Kinglet	--	--	--	--	--	5	--	--	--	6	71	4	11
Water Pipit	--	--	--	--	--	--	--	--	--	9	6	--	--
Cedar Waxwing	--	--	18	--	--	--	--	--	--	20	20	--	--
Loggerhead Shrike	--	17	5	3	5	36	--	1	235	5	20	7	1
Starling	22	300	25	82	225	1039	15	Common	5	1245	1290	100	601
White-eyed Vireo	20	38	73	22	19	100	1	Common	12	36	60	11	20
Yellow-throated Vireo	4	5	7	1	5	7	2	--	6	11	11	1	2
Solitary Vireo	--	--	--	--	--	1	--	--	3	--	3	--	11
Red-eyed Vireo	30	20	41	8	11	55	--	--	6	61	103	26	35
Philadelphia Vireo	--	--	--	--	--	--	--	--	--	--	1	--	--
Warbling Vireo	--	7	3	--	1	6	--	--	--	--	1	--	3
Black and White Warbler	1	--	2	4	6	11	--	--	1	22	34	8	20
Prothonotary Warbler	20	87	7	4	5	41	1	--	1	10	10	--	--
Swainson's Warbler	6	1	--	--	--	--	--	--	--	--	--	--	--
Worm-eating Warbler	--	--	6	4	4	7	1	--	--	6	14	7	3
Golden-winged Warbler	--	1	4	--	1	--	--	--	--	--	6	--	3
Blue-winged Warbler	--	1	23	5	13	25	--	--	--	1	6	--	--
Brewster's Warbler	--	--	--	--	--	1	--	--	--	16	15	4	--
Tennessee Warbler	32	18	21	1	24	--	--	--	--	2	1	--	--
Orange-crowned Warbler	--	--	--	--	--	--	--	--	--	--	--	--	--
Nashville Warbler	--	1	1	--	2	1	--	--	--	--	7	4	1
Parula Warbler	30	19	4	5	10	5	--	--	--	2	71	4	44
Yellow Warbler	--	6	4	2	10	24	3	--	2	26	10	12	4
Magnolia Warbler	--	--	2	--	1	1	--	--	--	7	10	3	--
Cape May Warbler	--	--	5	--	3	--	--	--	--	5	2	2	--
Black-throated Blue Warbler	--	--	--	--	--	--	--	--	--	--	4	--	9
Myrtle Warbler	12	139	75	26	7	43	19	--	3	138	152	5	25
Black-throated Green Warbler	17	--	10	--	2	33	1	--	--	1	39	10	8
Cerulean Warbler	--	3	8	--	32	33	1	--	--	2	35	15	3
Blackburnian Warbler	--	--	2	--	--	--	--	--	--	--	4	--	--
Yellow-throated Warbler	1	8	2	--	4	15	--	--	7	1	4	3	7
Chestnut-sided Warbler	4	--	3	--	5	4	--	--	--	1	17	4	8
Bay-breasted Warbler	1	--	--	1	--	1	--	--	--	7	5	8	--
Blackpoll Warbler	4	4	19	4	1	1	2	--	--	15	5	32	--
Pine Warbler	--	--	5	8	--	6	--	--	--	15	4	1	--
Prairie Warbler	--	--	55	15	4	25	6	--	--	16	70	11	7
Palm Warbler	--	20	54	7	7	12	2	--	2	19	16	1	1
Ovenbird	--	--	5	1	8	4	--	--	3	2	28	21	39
Northern Waterthrush	--	4	1	4	6	5	--	--	--	2	1	1	1
Louisiana Waterthrush	5	--	8	2	5	30	--	--	--	9	3	12	4

	Memphis	Reelfoot	Paris Landing	Savannah	Columbia	Nashville	Boswell	Lebanon	Cookeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Kentucky Warbler	31	32	17	1	13	45	--	--	--	17	32	22	2
Yellowthroat	10	95	69	9	13	45	3	--	21	53	109	13	36
Yellow-breasted Chat	16	29	41	14	16	49	9	2	10	45	65	11	24
Hooded Warbler	6	--	5	3	8	10	--	--	--	5	28	18	12
Wilson's Warbler	--	--	--	--	--	1	--	--	--	--	1	--	--
Canada Warbler	--	12	9	1	7	14	--	--	--	4	9	4	5
American Redstart	44	302	15	62	50	161	--	45	91	698	245	52	212
House Sparrow	--	57	30	23	28	754	18	49	142	281	434	76	164
Bobolink	2	--	--	--	--	--	--	--	--	--	--	--	--
Eastern Meadowlark	--	57	30	23	28	754	18	49	142	281	434	76	164
Red-winged Blackbird	9	550	57	34	154	347	29	10	54	251	550	39	68
Orchard Oriole	13	7	49	22	15	117	5	10	14	10	59	12	10
Baltimore Oriole	20	33	8	3	3	8	3	--	1	10	11	3	3
Rusty Blackbird	--	--	--	--	--	--	5	--	6	3	1	--	--
Common Grackle	46	157	75	140	70	1569	157	128	156	339	966	215	873
Brown-headed Cowbird	58	213	91	35	32	682	7	--	25	59	189	42	44
Scarlet Tanager	2	1	15	3	11	16	1	--	--	10	34	21	28
Summer Tanager	19	19	55	14	9	62	1	9	11	39	47	23	1
Cardinal	41	120	68	36	32	298	33	64	151	174	423	90	172
Rose-breasted Grosbeak	8	8	39	4	15	4	--	--	2	10	25	12	5
Blue Grosbeak	--	--	78	4	37	126	12	28	1	38	15	2	--
Indigo Bunting	50	181	78	63	37	126	12	28	31	139	174	73	21
Dickcissel	--	77	3	24	23	--	--	--	--	--	1	--	--
Purple Finch	--	49	36	36	23	4	--	--	8	81	266	18	157
American Goldfinch	8	1	69	27	19	295	3	13	46	191	209	36	100
Pufous-sided Towhee	2	16	11	3	6	5	2	--	--	13	25	--	6
Savannah Sparrow	--	--	--	1	6	2	--	--	1	3	19	--	11
Grasshopper Sparrow	--	--	--	1	6	2	--	--	--	--	--	--	--
Vesper Sparrow	--	--	--	--	--	--	--	--	2	--	1	--	2
Bachman's Sparrow	--	--	--	--	--	--	--	--	--	--	1	1	--
Slate-colored Junco	--	--	1	1	--	1	--	--	2	3	--	6	4
Chipping Sparrow	1	3	21	14	9	118	8	--	24	51	49	6	49
Field Sparrow	2	29	45	12	25	97	14	15	26	75	148	30	41
White-crowned Sparrow	--	1	1	--	18	14	2	--	1	8	10	--	6
White-throated Sparrow	35	32	38	17	14	91	17	--	80	75	154	3	87
Fox Sparrow	--	--	--	--	--	--	--	--	--	1	--	--	--
Lincoln's Sparrow	--	--	5	--	--	--	2	--	--	--	--	--	--
Swamp Sparrow	--	1	3	4	4	1	3	--	--	3	114	63	100
Song Sparrow	--	--	1	--	--	--	--	--	26	93	209	63	100
TOTAL SPECIES	85	122	135	102	143	133	69	48	86	151	152	118	122

Mrs. Milbrey Dugger of Mr. John Ellis' party. The Willet was seen in the Old Hickory Lake area by Mrs. Carol Knauth's party which included Steve Greenfield and Mrs. Margaret Mann. This is the fourth listing of a Willet in the Nashville area. Compiler: Clyde D. Anderson.

BOXWELL—Camp Light and Camp Parnell sections of Boxwell Reservation on Old Hickory Lake about ten miles south of Gallatin. 28 April 1967; weather: clear to partly cloudy with temperatures from 40°F to 78°F; total: 69 species. The area covered on foot was ten miles and there were two observers. Compilers: Tom Deal and Lamont Ingalls.

LEBANON—29 and 30 May 1967; weather: fine except for showers in the afternoon; total: 48 species. (There were no other details sent with the Lebanon report except a list of species and numbers—Editors.)

COOKEVILLE—22 April 1967; weather: rain in early morning; clear and sunny after 8:00 A.M. with temperatures from 55°F to 75°F; total: 86 species. There were 17 observers in 11 parties with 72 party hours and 15 party miles on foot and 95 party miles by car. Observers: Edwinna Cummins, John Cummins, Ralph Duncel, Caprice Haile, Raymond High, Roy T. Hinds, Paul H. Hollister, Amy Johnson, Ray Jordan, Marjorie McGee, Sidney McGee, Annice Moore, Martin Nowak, M. R. Richmond, Thelma Tinnon, Robert Toline. Compiler: Marie White.

CHATTANOOGA—30 April 1967; weather: clear and dry, with a steady 5-10 mph southern wind with no precipitation and temperatures from 54°F to 73°F; total: 151 species. The Greater Scaup were observed by two separate parties. The Virginia Rail was recorded by the DeVore party at Amnicola Marsh, where it had been seen for one week. The Long-billed Marsh Wren was also recorded at Amnicola Marsh. Observers: Francis Barnwell, Sarah Barton, Dr. W. K. Butts, Maxine Crownover, Roberta Doub, Kenneth Dubke, Roy Evenson, Dr. and Mrs. John R. Freeman, Howard and Mary Lou Meadors, Gladys C. Nelson, Mable Norman, William L. Phillips, Veta Sliger, Charles Sterchi, Roger Swanson, Mary Tunsburg, Chuck Turner, Jack Wagoner, Gene and Adele West. Compiler: Jon DeVore.

KNOXVILLE—All of Knox County was included in the area. 30 April 1967; weather: the day was cloudy with temperatures from 53°F to 77°F; total: 152 species. The Red-throated Loon was found by Tony Koella who studied it for almost an hour through a 30-power scope. The loon was still in winter plumage. The Dunlin and Semipalmated Plover were found by James T. Tanner and Fred Alsop, and were seen later by Koella. Ten of the Black-crowned Night Herons were in a nesting colony. Compiler: J. B. Owen.

KINGSPORT—13 May 1967; weather: cool, cloudy, rain; 7:00 A.M. to 9:00 A.M.; total: 118 species. First Kingsport Spring Census record for American Bittern, Common Snipe, Traill's Flycatcher, and first Spring Census without Ruby-throated Hummingbird, Grasshopper Sparrow. Observers: Charles Baker, Marie Brown, Ed Gift, George Rodgers, Arthur Smith, Ann Switzer. Compiler: Tom Finucane.

ELIZABETHTON—Same areas were covered as on previous spring counts. 30 April 1967; weather: from fair to partly cloudy with light showers in the afternoon and temperature of about 68°F; total: 122 species. The count covered a period of twenty-four hours from 6:00 P.M. on 29 April through 6:00 P.M. on 30 April. Observers: Bill Bridgforth, Mrs. Harold Dillenbeck, Joy Dillenbeck, Mrs. George Dove, Mr. and Mrs. C. W. Fairbanks, Dick Finucane, Thomas W. Finucane, Dr. and Mrs. Lee R. Herndon, Roby D. May. Compiler: Charles R. Smith.

T.O.S. ANNUAL MEETING, 1967

BY MAXIE SWINDELL, *Secretary*

The Memphis Chapter was host at the annual meeting of the Tennessee Ornithological Society on 5, 6, and 7 May. About 150 members and guests assembled at Paris Landing State Park to enjoy the excellent programs and field trips.

Friday evening the Registration Committee was kept busy in the Inn lobby until time for the movie on Mark Catesby, "The Colonial Naturalist" to begin. Delicious refreshments were served at Open House following the program.

On Saturday and Sunday mornings, members had a choice of field trips; the Gatlin Point Area, Fort Donelson Military Park, the Bootlegger's House (I heard the bootlegger departed so hurriedly he left all his equipment in the basement), or the Boswell Point Area.

Directors gathered in the Patio Room at 1:30 P.M. Saturday afternoon for the business session. The President, Mrs. H. C. Garlinghouse, called the meeting to order. Main items of business were the Treasurer's report, the proposed changes in the Constitution, and officers for 1967-1968. Miss Annella Creech gave the Treasurer's report. Mrs. William F. Bell, Chairman of the Constitution Committee, explained the reasons for proposed changes in the Constitution. Mrs. Ben Coffey, Chairman of the Nominating Committee, presented the following slate: President—Robert W. McGowan; Vice-presidents, West—Earl Fuller, Middle—Mrs. F. C. Laskey, East—Wallace Coffey; Secretary—Mrs. Henry Dinkelspiel; Treasurer—Miss Annella Creech; Curator—Albert Ganier; Editor—Dr. Lee Herndon; Directors-at-Large, West—Dr. W. H. Blackburn, Middle—John O. Ellis, East—Charles R. Smith. These reports were received as presented.

Miss Mary Davant presided at the Paper Session which began at 3:30 in the Patio Room. Ben B. Coffey presented a bird foreign to Tennessee, with his "Calls of Mexican Nightjars." Robert McGowan talked of a native bird in his "Preliminary Report of a Breeding Census of the Pileated Woodpecker at Shelby Forest State Park, Shelby County, Tennessee."

The printed Schedule of Events for the meeting listed "Banquet—Saturday, 7:00 P.M." At that time birds were all but forgotten as birdwatchers feasted on a variety of foods which tasted every bit as good as they looked. At 8 o'clock the President presided over a short business session. She extended a welcome to all present, and expressed the gratefulness our entire membership feels in having with us two of the founders of the Society, Dixon Merritt and Albert Ganier, and the wife of another of the founders, Mrs. George Mayfield, who brought with her some future TOS members—her delightful grandchildren. The President also told the Society of the distinguished awards bestowed on two of the members since the 1966 meeting: Mr. Ganier received the Governor's Award for Conservationist of the Year for the State of Tennessee; and Mrs. F. R. Laskey (Amelia to her many friends) has been elected as a Fellow in the American Ornithologists Union, an honor awarded only a very few women.

Dr. Katherine Goodpasture is the State Coordinator for the U. S. Fish and Wildlife's Cooperative Breeding Bird Survey for this second year of effort to learn more about the abundance of breeding birds.

Mrs. Louis F. Smith, Chairman, read the following Resolutions of her Committee:

WHEREAS, THE TENNESSEE ORNITHOLOGICAL SOCIETY, assembled at its fifty-second annual meeting 5, 6, and 7 May 1967 at Paris Landing State Park,

AND RESOLVED that the Society wishes to express its sincere appreciation to our host, Memphis Chapter,

To Mrs. Henry Dinkelspiel, Vice-President for West Tennessee, and to her advisors—Mrs. Ben Coffey, Mrs. Leslie Kostka, Robert McGowan, and Earl Fuller—for the planning and arrangements for this meeting;

To Dr. and Mrs. Arlo Smith for handling of registration;

To Mrs. Robert McGowan and Mrs. Bill Lawhon for art work and to Mrs. Lawhon for arranging accommodations;

To Mrs. Edward Carpenter for refreshments;

To Mrs. W. D. Stitt for decorations;

To Henry Dinkelspiel for printing and mailing of material;

To Bill Lawhon for hike plans and map layout;

AND RESOLVED that Robert Howes be accorded our thanks for his presence and informative address, and that we thank Mrs. Garlinghouse and our officers for their efforts for the Society this year;

AND, in particular, we express our appreciation to our founders, Dixon Merritt and Albert Ganier, for their continued devotion and leadership to TOS through these 52 years

JOHNETA SMITH
ELLEN STRINGER
DAN GRAY

The President announced that the action taken by the Board of Directors was to accept the proposed slate of officers and the proposed changes to the Constitution. Approval of the members was given in support of the Board's decision. She also expressed the thanks of the Society to Mr. Boswell and his Park staff for their part in making the meeting enjoyable and successful.

Mrs. Henry Dinkelspiel presented the speaker of the evening. Robert M. Howes, Director of Land Between the Lakes, gave an interesting talk on "Land Between the Lakes—Past and Future," and ended the talk with a movie showing a typical week of living and learning by a group of school youngsters at the Nature Center.

Miser Richmond, speaking for the Upper Cumberland Chapter at Cookeville, invited the Society to come to Cookeville for the 1968 meeting. The invitation was enthusiastically accepted.

At noon on Sunday birders gathered in the Patio Room for a final tally of species seen, with Ben Coffey keeping score. A total of 135 species was sighted. Thus ended another enjoyable meeting of TOS.

OUR NEW PRESIDENT: ROBERT W. MCGOWAN

The Tennessee Ornithological Society elected Robert W. McGowan as its new President at the annual meeting of the Society held 5, 6, and 7 May at Paris Landing State Park.

McGowan is a member of the Memphis Chapter and an Associate Professor of Biology at Memphis State University where he teaches General Ecology, Plant Taxonomy and Ornithology.

He was born 5 June, 1922 at Paris, Tennessee and is married to the former Ellen Fossey. The McGowans have two children and both are married.

He earned his B.A. at Lambuth College, Jackson, Tennessee and his M.A. from George Peabody College at Nashville. Two years were spent in advanced graduate work at the University of Missouri.



ROBERT W. MCGOWAN

During the period 1943 to 1946 he served in the European Theater with the United States Army. McGowan joined the Department of Conservation as a Parks Naturalist from 1948 to 1949.

In 1949 he joined the faculty at Memphis State University and is presently a member of the Faculty Council.

He holds membership in the Tennessee Academy of Science, the Wilson Ornithological Society and the Tennessee Scenic Rivers Association.

McGowan has been the recipient of the R. E. Womack Alumni Achievement Award from Lambuth College in 1965 and Chairman of the Stream Pollution Control Committee of the Tennessee Scenic Rivers Association.

He has published various feature articles concerning natural history in *The Tennessee Conservationist*, *The Tennessee Teacher*, *Commercial Appeal* and *Memphis Press Scimitar*.

ROUND TABLE NOTES

RECENT RUFFED GROUSE ON LOOKOUT MOUNTAIN—On 10 October 1965 Roy Evenson, National Park Service ranger, stationed at Point Park, on Lookout Mountain brought to the author a live Ruffed Grouse *Bonasa umbellus* (Linnaeus) that had been given to him by a local resident. The person who captured the Grouse reported they were in the house, about 4:30 P.M., when their dog started barking and making a great deal of commotion outdoors. Outside they found the bird huddled under a bush. They simply picked it up and placed it in a box, then notified Evenson. Their home is five blocks from the main gate to the park on East Brow Road. The immediate top of the mountain in this area is well covered with homes with large trees and some undergrowth in the spacious yards. The mountainsides in the vicinity are well forested and would be considered suitable grouse habitat, but none have ever been recorded there by Chattanooga Chapter members. The mountain has not been thoroughly covered to ascertain its resident bird life.

The finding of this bird in such a conspicuous location first prompted the writer to believe someone was playing a prank or maybe some hunters or game officials had released a number in an effort to restock the north end of the mountain. An effort was made to follow up these ideas, but the results were negative. The best explanation appears to be given by Arthur Cleveland Bent (1932, *Life Histories of North American Gallinaceous Birds*, U. S. Nat. Mus. Bull. 162, pp 158-159) where he quotes Audubon as saying in October the birds were known to make short flights from known areas across the Susquehanna and Ohio Rivers. As for the possible strange behaviour exhibited by this bird, Bent used the term "crazy season" to explain such erratic actions and presents several interesting incidents. For example, showing up in his yard in town, killing themselves by flying against buildings or through windows and one even being found in a neighbors house with no entrance other than the chimney.

An effort was made to ascertain where this bird may have originated, but brought rather meager results. The writer located one reference by Thomas D. Burleigh (1958, *Georgia Birds*, University of Oklahoma Press, Norman, p. 203) for the mountain on the Georgia side. To quote: "Hoxie, in 1923, recorded this species as rare at Cloudland, on Lookout Mountain . . ." As for present knowledge of this area we can't verify the statement one way or the other.

As far as the author's knowledge goes the closest resident population is located in the Prentice Cooper Wildlife Management Area on Walden's Ridge about eight miles north-northwest. In between Lookout Mountain and Walden's Ridge is the broad expanse of the Tennessee Valley and Elder (Raccoon) Mountain. The habitat on Elder would appear suitable for Grouse so an effort was made for verification with Mr. J. Emmitt Lawson, now retired from the Tennessee Department of Forestry. Mr. Lawson worked regularly on the mountain during all seasons from 1949 to 1962, clearing trails, etc., and during fire season manning the tower. He was very adept at hawk watching in the tower and made complete notes while there. In a conversation he stated that to his knowledge the only grouse on the mountain were a group of five the latter part of October 1962, his last season before retiring. From the foot of Elder to the foot of Lookout is an area of scattered timber and residential area.

Vincent Schultz (1953, Status of the Ruffed Grouse in Tennessee, *THE MIGRANT*, 24: pp. 45-52) writing on the species only mentioned they were

present on Walden's Ridge in Hamilton County.

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

WHIP-POOR-WILL FORAY—During the evening of 21 June 1967, six members of the Elizabethton Chapter TOS conducted a Whip-poor-will count across the north slope of South Holston Mountain in Carter and Sullivan Counties. The route covered began at the south shore of South Holston Lake and proceeded across South Holston Mountain *via* Flatwoods Road, a graveled Forest Service route, for 14.5 miles to a point near Keensburg in Carter County. This route is primarily through wooded, mountainous terrain with occasional open areas. The elevation of the route ranges from approximately 1700 to 2400 feet. Stops were made at half-mile intervals, as measured by the car speedometer, to count Whip-poor-will calls. A total of 45 Whip-poor-wills was recorded.

Weather conditions (generally overcast and windy with some rain) and the rather late date of this count probably account for the relatively small number of birds heard. As with previous trips, the count was timed so as to take advantage of the full moon since the birds seem to sing more readily during that period. The count covered a period of approximately two hours between 9:30 and 11:30 PM Eastern Daylight Time. Previous counts with the number of birds noted on each count in parenthesis are as follows: 24 April 1959 (56); 18 May 1962 (73); 13 May 1965 (69); 2 June 1966 (39). Each of these counts covered the same area described above and was conducted in the same manner.

MRS. HAROLD L. DILLENBECK, 1314 Seminole Drive, Johnson City 37601.

PURPLE GALLINULE IN EAST TENNESSEE—On the evening of 27 April 1967, I was attending the 17th Annual Spring Wildflower Pilgrimage with my wife and Jim and Nancy Campbell. While talking to Mr. Ross Bender, chief naturalist, Great Smoky Mountains National Park, we learned of the presence of a Purple Gallinule, *Porphyrio martinica*, in the city of Gatlinburg, Tennessee.

The next morning we went to the back yard of the Gatlinburg Motor Inn to see the bird for ourselves. We found it perched in the top of one of the ornamental shrubs. With the mountains in the background, this bird of the lily-pads looked very much out of place.

I talked to the inn's Negro chef and learned he had first seen the bird on 2 April, and that he had been feeding it bread crumbs and table scraps every day since. He said the gallinule never had ventured far from the boundaries of the yard and it spent most of the day walking over the shrubs or hiding under them.

The bird was seen daily until 5 May. On that date there was a severe thunder storm with heavy rains and strong winds. Since its passing the bird has not been sighted.

FRED J. ALSOP, III, Dept. of Zoology, University of Tennessee, Knoxville 37916.

EARLY NESTING OF MOURNING DOVE—On the afternoon of 28 March 1966, Charles Smith and the writer were taking a routine field trip on the grounds of the Veterans' Administration in Johnson City, Tennessee. An area near the Administration Building was being checked when a nest was noted in a Red Cedar, *Juniperus virginiana*. It was found to be a nest of the Mourning Dove, *Zenaidura macroura*, containing one egg and one young bird.

The next was approximately twelve feet out from the tree trunk and thirteen feet above the ground on a horizontal limb.

The young bird had already acquired juvenal plumage, with white edging on the feathers of the nape, back, rump, throat, and breast and black patches on the wing coverts. Some pin feathers were still evident and the bases of the primaries were still enclosed in feather sheaths. No development of the central tail feather was noted; however, the nestling was capable of short flights. Judging from the size of the nestling, it was assumed that the egg which remained in the nest would probably not hatch. On 31 March, the nest was again checked, but the young bird could not be found in the area. The remaining egg had been broken open and was rotten.

According to Bent (*Life Histories of North American Gallinaceous Birds*, 1932), the incubation period of the Mourning Dove is fifteen days, and the young remain in the nest approximately fifteen days after hatching. This means that there is a period of about thirty days between the time the egg is laid and the time that the young leave the nest. This particular bird was last observed in the nest at about 5:30 PM on 29 March, at which time it appeared capable of leaving the nest. Allowing approximately thirty days for the egg to hatch and the bird to develop its juvenal plumage and leave the nest, the egg would have to have been laid on or about 28 February 1966. As far as is presently known, this is the earliest nesting record of the Mourning Dove for the Johnson City area.

WILLIAM A. BRIDGFORTH, JR., 501 Laurel Avenue, Johnson City 37601.

GREATER SCAUP WINTER ON CHICKAMAUGA LAKE—There are several species of birds that present problems for field identification, consequently their local distribution has yet to be worked out. This past winter Jon DeVore and I were in an advantageous position to record observations on a wintering raft of around seventy Greater Scaup, *Aythya marila*, until they apparently migrated north or were replaced by others from farther south.

I was not present to consistently record observations on Chickamauga Lake until 18 November 1966. However, 13 November was the first date DeVore identified scaup on the lake. From November till 17 April 1967, I made twenty-four trips alone, or sometimes accompanied by DeVore or Roy Evenson. In addition DeVore made twenty-two trips on his own.

On the morning of 25 December I recorded fifty-five Greater Scaup as they leisurely floated and preened their feathers 300 yards off the point at Booker T. Washington State Park. Conditions were ideal to view through the 35X scope: one could look down on the calm water from a vantage point of a fifteen foot embankment and with the sky nearly clear and the sun rising to the rear. This area is nearly a mile across. Another advantage was the navigational channel for barges is located on the distant side, thus not unduly disturbing the resting waterfowl. When viewed the birds seldom moved allowing ample opportunity to study head contour and gloss, but the most diagnostic mark was the amount of white conspicuously revealed in the primaries when they flexed their wings. As the season progressed the males acquired the more white flank feathers in comparison with the more heavily barred flanks of the Lesser Scaup, *Aythya affinis*. With conditions favorable to carry out consistent observations an effort was made to check early in the morning on clear days. The 60X eyepiece was also engaged. We could usually count on finding the raft in its accustomed location or not far away. The greatest number identified was 104 on 28 February.

A very interesting point to note in checking from Chickamauga Dam to Harrison Bay State Park was the fact that we very rarely encountered Lesser Scaup. My records do show one raft of 81 Lesser Scaup and no Greater Scaup on 2 January. I'm now inclined to believe it's an error. The accustomed policy of the past has been to call distant scaup the Lesser Scaup because "they're the ones that should be here." From now on they will be just identified as scaup.

Our records reveal the raft could not consistently be found in their regular location after the end of February. In March the two species could sometimes be separated, but usually not over the vast expanse of water. DeVore and the Roger Swanson party recorded the last positive identification of Greater Scaup for the Spring Count 30 April.

The few other Chattanooga area records fit into the above pattern.

KENNETH DUBKE, 3302 Navajo Drive, Chattanooga 37411.

SPRING MORTALITY OF BLACK-POLL WARBLERS AT A NASHVILLE T. V. TOWER—On the morning of 14 and 15 May 1967, at WSM T. V. tower, 160 birds of 12 species were gathered. Of this number, 115 (72 per cent) were Black-poll Warblers, *Dendroica striata*, an equal ratio of males and females. On 16 May, another was found; 21 May 3. The condition of two of the latter, indicated that they had fallen on an earlier date.

In previous years at the towers, there have been only minor casualty lists at Nashville—two Black-polls at WSM on 26 April 1966 and 8 for WSIX from 8 through 17 May 1965. The autumn kill for the species has been low—10 for both towers in 8 years (1959-1966).

The casualties for spring 1967 occurred during a period of inclement weather with heavy overcast, precipitation and head winds from the north.

A. C. Bent (*Life Histories of North American Wood Warblers* Bull. 203: 404, 1953) states: "The habit of migrating at night is indirectly a cause of great mortality when waves of this species (Black-poll Warblers) encounter light houses and lighted towers. Often very serious conditions prevail during cloudy or foggy nights when the birds, losing their bearings and attracted by the bright light, descend from their high-level flight and are dashed to death on striking some part of the illuminated tower." He quotes some reports of casualties, including one for September 1887 when 595 birds were killed at Fire Island Light, Long Island and 356 (60 percent) were Black-polls.

The grand total of 173 for spring 1967 at WSM T. V. tower follows: 14 and 15 May—Red-eyed Vireo 3-1, Philadelphia Vireo 1-1, Black-and-white Warbler 1-1, Tennessee Warbler 5-3, Magnolia Warbler 1-0, Cape May Warbler 0-3, Bay-breasted Warbler 5-8, Black-poll Warbler 60-55, Ovenbird 0-1, Connecticut Warbler 0-2, Yellowthroat 2-0, Indigo Bunting 0-1, unidentifiable account condition 1-5. On 16 May Black-poll Warbler 1; on 21 May Black-billed Cuckoo 1, Red-eyed Vireo 2, Tennessee Warbler 1, Black-poll Warbler 1 plus 2 old, Indigo Bunting 1, unidentifiable 4.

Acknowledgment is made to the personnel of WSM for alerting us to the bird falls and to A. F. Ganier and Katherine A. Goodpasture for their part in collecting.

AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 37215.

THE PRESIDENT'S MESSAGE

Needless to say, I am highly honored to be selected as the new President of the Tennessee Ornithological Society.

At the time of this writing, it has become necessary for me to make a few decisions. There will be others, and I am aware that although some of them might turn out to be good ones, others will be less good; and too, I am mindful of the Transcendentalist poet who "reserved the right to change his mind tomorrow." In keeping with this spirit then, I can only report to you as of any particular writing, and hope for the courage to report mistakes, too, as they occur.

Most of our members are not unaware that opinions differ regarding the role of a membership committee within our organization. Frankly, I am not certain of the answer. However, I do believe that there are individuals who could contribute greatly to our organization and who could grow as future resource people through participation in our organization, but who are not sufficiently aware of the existence and activities of the T.O.S. Also, it is my belief that every member should assume the responsibility of an enthusiastic supporter of our organization, keeping eyes and ears open for those who, through association with the society, could contribute to the educational, conservation, and scientific activities of the T.O.S., and who could, themselves, benefit from active participation. Generally speaking, however, our species seems to function more efficiently with some machinery of organization behind them. Therefore, I am asking that the vice-presidents of each division of the state serve on a membership committee. I shall very shortly appoint a chairman for this committee and will make known the name of the chairman to each chapter.

Another matter which requires attention at this time is THE MIGRANT. We are, and should be, proud of our publication. Each of us should be aware of the tremendous energy, time, and expense which is involved in its quarterly creation. To remain a first class publication and to increase its future effectiveness as a voice of our organization, let each of us do what we can to contribute. The editors need material, articles and reports, from members who are involved in the many facets of observation and study of birds. Too many of us are, perhaps, too modest in the appraisal of our own abilities and hesitate to send in to an editor our efforts in reporting or writing an article. Give it a try. The editors welcome it and will help you get any suitable material into shape. And, too, why be ashamed of a rejection slip. A rejection slip reflects a considerable amount of courage and a certain degree of success.

Since the mechanics of publication of THE MIGRANT are time consuming and expensive, and, since the constitution states that, "It shall be the duty of the Editor to secure and prepare, with the aid of the editorial staff, suitable material for publication in our Quarterly, THE MIGRANT, and to arrange for the printing and mailing of same," I am asking the Treasurer to make available to the editorial staff sufficient funds to cover the costs of secretarial help in addressing, stuffing, sorting, and packaging the publication. One hundred dollars should be made available immediately and included in the budget, with executive board approval. Each of us should not fail to give a word of thanks to our editorial staff for their sacrifice (and I do not use



that word lightly) of time and energy in preparing THE MIGRANT for publication.

We are living in exciting times in an exciting world. At the same time it is depressing because of the destruction of our natural world around us. It has been going on for a long time, but now, since we are aware of it, it becomes poignantly depressing. None of us wish to be a part of the television and magazine caricature of the timid, ineffectual bird watcher; instead, I choose to think of ourselves as ornithologists in the spirit of Alexander Wilson or John Muir. Therefore, let's stand up and howl when we see the destruction or misuse of our beautiful America, and let's do it with a voice that will not be silenced, nor denied. If we fail to do so, there will not be a place for the existence of any ornithological society—except, perhaps, to study the behavior of captive birds in a zoo or ten cent store or on private and commercial hunting grounds.

I hope this term of office will be a good one for the T.O.S. I'm positive that I speak for all the officers whom you have elected when I say that we shall try, but we can't do it without the help of each member. We solicit your help and thoughtful suggestions.

Sincerely,

ROBERT W. MCGOWAN

(Continued from Page 29—"Red-winged Blackbirds")

SUMMARY

This paper has dealt with a study of the nesting and territorial habits of the Red-winged Blackbird in a limited area of typical habitat. Intensive observations were made during April, May, and June, 1967, and patterns of behavior were noted and recorded. Aspects of polygamy, territorialism, and care of young were of primary consideration in this paper. Nesting success was also briefly considered, and some aspects of behavior which might warrant further study were proposed.

THE SEASON

CHARLES R. SMITH, *Editor*

Reports for this period include data from 1 March through 31 May, inclusive. The spring season was considered rather unusual by most reporters. March brought indications of an early spring with generally warm, dry weather across the state. However, unusual periods of cool damp weather in April and May made the arrival of spring uncertain. March and April were rather dry in most areas with May being quite damp. These unusual weather conditions may account for the fact that the spring migration was often described as "slow" with no noticeable migration waves or spectacular numbers of species noted.

Records of northern finches were again few and far between. Purple Finches were reported from Nashville, Chattanooga, Greeneville, Bristol, and Elizabethton. Pine Siskins were noted only in Nashville and Chattanooga. Also, gulls were scarce or absent in most reports, and migrant thrushes (Swainson's and Gray-cheeked) were very uncommon. Among some of the more unusual observations were Cattle Egret at Reelfoot, Olive-sided Flycatcher at Savannah, Willet, Laughing Gull, and Brewster's Warbler at Nashville, and White-winged Scoter at Chattanooga. We are also pleased to welcome the Reelfoot area to our group of correspondents for this period. Of unusual interest was the occurrence of a European Widgeon on South Holston Lake in Virginia, within one mile of the Tennessee-Virginia State Line.

REELFOOT—*Grebes-Mergansers*: Pied-billed Grebe: 19, 30 Mar. (1) RL. Double-crested Cormorant: 29 Apr. (1) RL (EC, MLC). Great Blue Heron: nesting RL (EC). Little Blue Heron: nesting RL (EC). Common Egret: nesting RL (EC). Cattle Egret: 19 Apr. (10) T (HL, WL, BS), 24 Apr. (2) T (HL, MS), 30 Apr. (2) T (EC, MLC). American Bittern: 13 May (1) RL (EC). Least Bittern: 29 Apr. (1) RL (SC). Yellow-crowned Night Heron: 27 Apr. (1) RL (EC). Canada Goose: 4 Mar. (15,000) RL (REF), 12 May (6) RL (JD). Snow Goose: 4 Mar. (15) RL (REF). Blue Goose: 4 Mar. (45) RL (REF), last 15 May (1). Mallard: 4 Mar. (5,200) RL (REF). Black Duck: 4 Mar. (20) RL (REF). Gadwall: 11 Mar. (2,000) RL (REF). Green-winged Teal: 11 Mar. (15) RL (REF). Blue-winged Teal: 25 Mar. (1750) RL (REF). American Widgeon: 25 Mar. (775) RL (REF). Pintail: 4 Mar. (150) RL (REF). Wood Duck: 4 Mar. (1,300) RL (REF). Shoveler: 25 Mar. (400) RL (REF), 29 Apr. (1) RL (EC, MLC). Redhead: 4 Mar. (15) RL (REF). Ring-necked Duck: 4 Mar. (2,800) RL (REF), 2 May (2) RL (HD). Lesser Scaup: 25 Mar. (375) RL (REF), 13 May (20) RL (EC). Common Goldeneye: 4 Mar. (20) RL (REF). Bufflehead: 25 Mar. (15) RL (REF). Ruddy Duck: 25 Mar. (65) RL (REF). Hooded Merganser: 4 Mar. (10) RL (REF). Common Merganser: 4 Mar. (5) RL (REF). Red-breasted Merganser: 31 May (1) RL (WL).

Hawks-Sandpipers: Broad-winged Hawk: 8 Apr. (1). Bald Eagle: 19 Mar. (1) RL (MLC, BS). Marsh Hawk: 19 Mar. (1). Osprey: 30 Apr. (1). Sora: 29 Apr. (1). Common Gallinule: 13 May (1) RL (EC). American Coot: 25 Mar. (9,700) RL (REF). Wild Turkey: 29 Apr. (2) (LC). American Golden Plover: 19 Apr. (30) T (HL, WL, BS). Black-bellied Plover: 29 Apr. (2) (BC). Semipalmated Plover: 29 Apr. (10) (SC). Upland Plover: 2 May (1). Spotted Sandpiper: 29 Apr. (2). Solitary Sandpiper: 29 Apr. (28). Greater Yellowlegs: 29 Apr. (27) RL (SC). Lesser Yellowlegs: 29 Apr. (175) RL

(SC). Pectoral Sandpiper: 29 Apr. (210) RL (SC). Short-billed Dowitcher: 29 Apr. (4) RL (BC).

Terns-Sparrows: Forster's Tern: 13 May (2). Common Tern: 13 May (1). Least Tern 16 May (5) TF (EC, MLC). Yellow-billed Cuckoo: 29 Mar. (2) (MLC). Barred Owl: 29 May (1). Chuck-will's-widow: 14 May (1). Night-hawk: 16 May (1). Chimney Swift: 30 Mar. (1). Ruby-throated Hummingbird: 30 Mar. (1). Bank Swallow: 29 May (2). Blue-gray Gnatcatcher: 30 Mar. (1). Yellow-throated Vireo: 1 Apr. (1). Yellow-throated Warbler: A Apr. (1). White-crowned Sparrow: 29 Apr. (1) TF.

Locations: RL—Reelfoot Lake, T—Tiptonville, TF—Tiptonville Ferry.

Observers: BC—Ben Coffey, EC—Eugene Cypert, LC—Lula Coffey, MLC—Mary Lou Cypert, SC—all parties on Spring Count, HD—Harvell Denton, JD—John DeLime, REF—Reelfoot Refuge census figures, HL—Helen Lindamood, WL—William Lindamood, BS—Betty Sumara, MS—Melita Smith.

EUGENE CYPERT, 813 Foster Street, Tiptonville 38079.

SAVANNAH—*Bitterns-Vireos*: American Bittern: 18 Apr. (2) B to 15 May (1) SH. Red-breasted Merganser: 22 May (1) P. Marsh Hawk: 13 May (1) H. Osprey: 11 Mar. (1) P. Dunlin: 22 May (2) P. Chuck-will's-widow: 11 Apr. (1) H. Olive-sided Flycatcher: 11 May (1) H and 17 May (1) SH. Cliff Swallow: 15 Apr. (50) nests under construction P. Short-billed Marsh Wren: 2 May (2) SH. Grey-cheeked Thrush: last 24 May (1) H. Veery: our only record 30 Apr. (1) S. Ruby-crowned Kinglet: last 10 May (1) I. White-eyed Vireo: 1 Apr. (2) H. Solitary Vireo: 13 May (1) H.

Warblers-Sparrows: Black-and-white Warbler: 25 Mar. (2) H. Golden-winged Warbler: 11 May (2) H. Blue-winged Warbler: 1 Apr. (2) H. Cape May Warbler: 12 and 16 May (2) H. Black-burnian Warbler: 11 Apr. (1) H. Yellow-throated Warbler: 24 Mar. (1) I. Bay-breasted Warbler: last 21 May (1) H. Blackpoll Warbler: last 24 May (2) H. Yellow-breasted Chat: 14 Apr. (1) H. Bobolink: 20 May (110) O. Orchard Oriole: 14 Apr. (1) H. Scarlet Tanager: 8 Apr. (1), 11 Apr. (2) H. Blue Grosbeak: 18 April (1) SH. Savannah Sparrow: last 9 May (1) SH. Lincoln's Sparrow: 4 May to 23 May (2) SH.

Locations: B—Bruton Branch, H—Harbert Hills Academy, I—Indian Creek, O—Olive Hill, P—Pickwick Dam and Lake, S—Savannah, SH—Sutton Hollow.

Observers: Freshman Biology Class.

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

NASHVILLE—*Grebes-Ducks*: Horned Grebe: 8-31 May (1), 30 May and 1 June (2), BL (HEP), 10 days latest ever. Pied-billed Grebe: last 12 May (1) BL (HEP). Great Blue Heron: almost absent. Green Heron: 7 Apr. (1) SHV (LOT). Little Blue Heron: 23 May (1) RL (MCW). Common Egret: 22 Apr. (2) ACM (AFG), first in two years. Black-crowned Night Heron: 27 Mar. (60) pairs on nest BH (MB). Canada Goose: 7-29 Mar. (1) BL (HEP), 17 Mar. (1) RL (MCW). Mallard: very scarce and left early. Black Duck: last 17 Mar. (30) BL (MCW). Gadwell: one report, 21 Mar. (4) BL (MCW). Blue-winged Teal: 8 Mar. (2), a peak of (18) 18 Apr., last (1) 15 May, all BL (HEP). American Widgeon: a pake of (12) 13 Mar. to

(1) 18 April BL (HEP). Shoveler: a peak of (22) 20 March to (4) on 12 May, then (1) 17 May. Wood Duck: 16 Mar. (8) RL, then 3 sets young late May RL (MCW), also young 2 J's, normal elsewhere. Redhead: 4 Mar. (1) CL (HEP), 17 Mar. (2) BL (MCW, EE). Ring-necked Duck: still scarce, left mid-Mar. Canvasback: scarce in Mar., last (2) 17 Mar. BL (MCW, EE). Lesser Scaup: from (600) 11 Mar. to (4) 25 May BL (HEP). Common Goldeneye: peak 13 Mar. (34) RL (MCW), last 27 Mar. (2) RL (MB). Bufflehead: a few during Mar., last 4 Apr. (1) BL (HEP). Oldsquaw: (1) (THE MIGRANT 38:18) seen occasionally until 4 May, BL (HEP). Ruddy Duck: fairly regular at BL with a peak of (11) 29 Mar. to (1) 16 May, 7 days latest ever (HEP). Hooded Merganser: 15 May (1) BL (HEP).

Hawks-Terns: Broad-winged Hawk: 5 Apr. (3) RL (SB). Marsh Hawk: 22 Apr. (1) (TOS) only report. Osprey: 22 Apr. (8) (TOS), may be the largest day's count here. Bobwhite: 22 Apr. (96) (TOS), shows them increasing. Sora: 22 Apr. (1) ACM (AFG). American Coot: common and late leaving with (25) 31 May BL (HEP). Semi-palmated Plover: 22 Apr. (2) ACM (AFG), first in two years. American Woodcock: 4 Mar. (1) OHL (HCM, LOT), 28-29 Mar. (1) BS (KAG), 27 May (3) 2 J's (MB). Common Snipe: 22 Apr. (12) (TOS), only report. Spotted Sandpiper: 14 Apr. (3) to 12 May (3), both BL (HEP). Solitary Sandpiper: 10 Apr. (1) near PWP (LOT), was the first, fairly scarce. Willet: 22 Apr. (1) near dam OHL (CK, SG), fourth area record. Greater Yellowlegs: 18 Mar. (3) RR (SB). Lesser Yellowlegs: 22 Apr. (3) RR (TOS). Pectoral Sandpiper: only one report, (1) ACM 22 Apr. (AFG). Semipalmated Sandpiper: 3 May (6) BL (HEP), 14 May (1) SHV (KAG), only reports. Ring-billed Gull: 22 Apr. only (3) reported OHL, none later. Laughing Gull: 1 May (1) BL (HEP), second area record. Bonaparte's Gull: last 29 Mar. (2) ACM (HCM, MB). Common Tern: 1 May (1) BL (HEP), first in 3 years. Black Tern: 12 May (8), 15 May (5), both BL (HEP), and 15 May (3) RL (MCW). Yellow-billed Cuckoo: 22 Apr. (8) (TOS).

Goatsuckers-Swallows: Whip-poor-will: 25 Mar. (1) (FM). Common Nighthawk: 13 Apr. (2) (AC). Chimney Swift: 27 Mar. (1) (ARL). Ruby-throated Hummingbird: 7 Apr. (1) (JC). Yellow-bellied Sapsucker: 23 Apr. (1) CP (HCM). Eastern Kingbird: 18 Apr. (3) PPD (SB), 22 Apr. (38) (TOS). Great Crested Flycatcher: 12 Apr. (1) OCR (SB). Acadian Flycatcher: late, no reports until 4 May (1) (HCM). Wood Pewee: 29 Apr. (1) CP (HCM). Tree Swallow: 28 Mar. (1) BL (HEP). Bank Swallow: 28 Apr. (25), a peak of (500) 8 May, last 15 May (100) BL (HEP). Rough-winged Swallow: 29 Mar. (3) RR (HCM, MB). Barn Swallow: 24 Mar. (1) BL (HEP), then very scarce until early May when their numbers became normal. Cliff Swallows: 5 May nesting RR (KAG). Purple Martin: 3 Mar. (1) (MLL), scarce during the period with no nests at BL and only (1) seen during migration there. House Wren: 13 Apr. (1) in song, 21 Apr. building nest (JHH). Winter Wren: left early, last 9 Apr. (1) BS (KAG). Catbird: first 15 Apr. (1) (KAG). Robin: below normal, apparently no migration passed through. Wood Thrush: 12 Apr. (1) (SB, HCM), seems to get scarcer here each year. Hermit Thrush: last 13 April (1) (HCM). Swainson's Thrush: 21 Apr. (1) 2 J's (KAG) to 25 May (1) (SB, KAG), far below normal numbers. Gray-checked Thrush: 2 May (1) 2 J's (KAG), only report. Veery: 8 May (1) MCW, 25 May (1) (SB). Eastern Bluebird: 22 Apr. (38) (TOS), it seems their numbers are slowly climbing here. Blue-gray Gnatcatcher: 24 Mar. (1)

BS (KAG), 6 Apr. pair building nest PWP (LOT). Golden-crowned Kinglet: last 1 Apr. (1) (KAG). Ruby-crowned Kinglet: 16 Apr. (2) BS (KAG). Water Pipit: 11 Mar. (80) BL (HEP), 25 Mar. small flock EWP (LOT). Cedar Waxwings: fairly scarce with last 25 May (5) CP (HCM). White-eyed Vireo: first 1 Apr. (2) BS (MB). Yellow-throated Vireo: 1 Apr. (2) BS (MB). Solitary Vireo: 6 records between 2-13 May CP (HCM). Red-eyed Vireo: 4 Apr. (1) (SB). Warbling Vireo: 15 Apr. (1) SHV (KAG).

Warblers: Black-and-white: 1 Apr. (3) BS (KAG, MB). Prothonotary: 5 Apr. (2) RL (SB), 22 Apr. (41) (TOS). Worm-eating: 14 Apr. (1) PWP (ARL). Blue-winged: 1 Apr. (1) BS (KAG). Brewster's (hybrid): 22 Apr. (1) SHV (AC, MD). Tennessee: scarce and late with 8 May (1) (HCM). Orange-crowned: 14 Apr. (1) (HCM). Nashville: 22 Apr. (1) RL (MCW) to 2 May (1) CP (HCM). Parula: 7 Apr. (1) BS (KAG). Yellow: 9 Apr. (1) (ARL). Magnolia: 22 Apr. (1) RL (MCW) to 21 May (1) BS (KAG). Myrtle: scarce until 22 Apr. (43) (TOS), last 16 May (1) CP (HCM). Black-throated Green: 1 Apr. (1) (HCM) to 24 April (1) RL (MCW), very scarce in between. Cerulean: 9 Apr. (3) 2 J's (HCM). Blackburnian: 22 Apr. (1) (TOS), 24 Apr. (1) (HCM). Yellow-throated: 25 Mar. (4) 2 J's (MB). Chestnut-sided: 16 Apr. (1) (ARL). Bay-breasted: 22 Apr. (3) (AV) and (1) (MCW), to 13 May (1) (HCM). Blackpoll: 12 Apr. (2) RL (MCW, EE, to 22 May (1) CP (HCM). Pine: 16 Apr. (1) PWP (LOT). Prairie: 6 Apr. (2) PWP (LOT). Palm: 15 Apr. (1) (HCM), far scarcer than usual. Ovenbird: 16 Apr. (1) BS (KAG). Northern Waterthrush: 1 Apr. (1) PWP (LOT). Louisiana Waterthrush: 12 Mar. (1) BS (KAG). Kentucky: 15 Apr. (1) BS (KAG). Yellowthroat: 14 Apr. (1) (HCM). Yellow-breasted Chat: 16 Apr. (3) PWP (LOT), and (1) BS (KAG). Hooded: 10 Apr. (1) (HCM). Redstart: 1 Apr. (1) BS (MB), 10 days earliest ever.

Bobolink-Sparrows: Bobolink: very late with (200) 16 May (MCW, EE) and (75) 21 May (KAG), both SHV. Orchard Oriole: 6 Apr. (1) (HH). Baltimore Oriole: scarce, with first 15 April (1) (KAG). Common Grackle: abundant everywhere. Brown-headed Cowbird: common, with (1,275) 19 Mar. HRV (HCM, HEP). Scarlet Tanager: scarce, 15 Apr. (1) BS (KAG). Summer Tanager: 12 Apr. (1) PWP (MCW, EE). Rose-breasted Grosbeak: almost absent with (4) 22 Apr. (TOS) and 12 May (2) (HCM). Blue Grosbeak: 30 Apr. (1) 2 J's (HCM), 4 May (1) EWP (AV), and 14 May (1) SHV (KAG). Indigo Bunting: 15 Apr. (2) SHV (KAG). Dickcissel: late, first (1) SHV (HCM, HEP). Purple Finch: 22 Apr. (4) (FM), last seen. Pine Siskin: 18 Mar. (1) (SB), only record for season. Grasshopper Sparrow: 22 Apr. (1) (KAG, MCW). Vesper Sparrow: 2 May (1) (LOT). Slate-colored Junco: left early, last 22 Apr. (1) (CK). Chipping Sparrow: 7 Mar. (1) (JC). White-crowned Sparrow: 19 Mar. (18) HRV (HCM, HEP), last 23 May (1) (HH). White-throated Sparrow: scarce and most left early, last 2 May (3) (HCM). Fox Sparrow: last 21 Mar. (1) (HCM). Lincoln's Sparrow: 20 Apr. (1) SHV (KAG). Swamp Sparrow: left early, last 22 Apr. (2) ACM (AFG). Song Sparrow: 25 Mar. (1) CP (HCM).

Locations: ACM—Ashland City Marsh, BS—Basin Springs, BH—Bordeaux Heorny, BL—Bush Lake, CP—Centennial Park, CL—Colman's Lake, EWP—Edwin Warner Park, HRV—lower Harpeth River Valley, OCR—Otter Creek Road, OHL—Old Hickory Lake, PPD—Percy Priest Dam, PWP—Percy

Warner Park, RL—Radnor Lake, RR—River Road, SHV—South Harpeth Valley, 2 J's—Two Jays Sanctuary.

Observers: SB—Sue Bell, MB—Mike Bierly, JC—Mrs. Jack Clark, AC—Annella Creech, MD—Milbrey Dugger, EE—Erline Elmore, AFG—Albert F. Ganier, KAG—Katherine A. Goodpasture, SG—Steve Greenfield, JHH—Mrs. J. H. Hite, HH—Helen Hodgson, CK—Carol Knouth, ARL—Amelia R. Laskey, MLL—Mary Lou Lorange, HCM—Harry C. Monk, FM—Fanny Murphy, HEP—Henry E. Parmer, TOS—Nashville Chapter Count, LOT—Lawrence O. Trabue, AV—Alvin Vincent, MCW—Mary C. Wood.

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

CHATTANOOGA—*Loons-Ducks:* Common Loon: last 9 May (1) TRG (KD, RE). Horned Grebe: last 7 Mar. (2) CL (KD). Pied-billed Grebe: last 30 Apr. (TOS), max. 10 Apr. (25) CL (KD). Great Blue Heron: last 30 Apr. (TOS). Green Heron: first 18 Apr. (2) HIA (KD). Little Blue Heron: first 10 Apr. (2) SB (KD), last 15 May (2) MB (KD), plus three other records. Cattle Egret: 12 May (7), 13 May (4) (both JD), 15 May (1) (JD, KD) and 16 May (1) all at AM (KD). Common Egret: 10 Apr. (2) MP (KD), 30 Apr. (TOS). Louisiana Heron: 8 May (1) AM (KD, AW, and others). Yellow-crowned Night Heron: first 30 Apr. (TOS). Least Bittern: first 10 Apr. (1) AM (KD). American Bittern: first 27 Mar. (1) MP (KD), then regular to end of period. Canada Goose: last 30 Apr. (TOS). Mallard: max. 21 Mar. (13) CL (KD). Black Duck: last 30 Apr. (TOS), max. 1 Mar. (65) CL (KD). Gadwall: last 30 Apr. (TOS), max. 7 Mar. (72) CL (KD). Pintail: only on 23 Mar. (2) CL (JD). Green-winged Teal: last and max. 25 Mar. (13) CL (JD). Blue-winged Teal: last 15 May (6) AM (KD), max. 10 Apr. (51) CL, AM (KD). American Widgeon: last 30 Apr. (TOS), max. 21 Mar. (80) CL, AM (KD). Shoveler: last 22 May (1) AM (KD), max. 21 Mar. (26) CL, AM (JD, KD, RE). Ring-necked Duck: last 27 Mar. (1) CL (KD), max. 21 Mar. (35) CL (JD, KD, RE). Canvasback: only on 6, 7 Mar. (1) CL (KD). Scaup: last 2 May (40), max. 10 Apr. (1,195) CL (KD). Common Goldeneye: last 25 Mar. (2) CL (JD). Bufflehead: last 27 Mar. (5) CL (KD). White-winged Scoter: regular to 25 Mar. (2) WB (JD). Ruddy Duck: 25 Mar. (35) CL (KD), 27 Mar. (6) CL (KD, RE), 30 Apr. (TOS). Hooded Merganser: last 9 May (1) TRG (KD, RE). Red-breasted Merganser: sporadic to 27 May (2) CL (JD).

Hawks-Owls: Broad-winged Hawk: first 1 Mar. (1) WB (JD). Eagle: an unidentified brown eagle chasing an Osprey 24 Apr. TRG (KD, RE). Marsh Hawk: last 9 May (1) CB (FW). Osprey: U.S. Coast Guard personnel reported to the compiler that the pair were at the Watts Bar Lake nest on 24 Mar. King Rail: first 3 Apr. (2) AM (KD), max. 26 Apr. (6) AM (KD). Virginia Rail: 26 Apr. (1) AM (KD). Sora: first 10 Apr. (1) AM (KD), last 22 May (2) AM (KD). unusually abundant at AM with max. count there 28 Apr. (13) (AW). Purple Gallinule: 8 May (1) AM (KD). American Coot: regular to end of period. Semipalmated Plover: first 2 May (2) AM (KD), last 15 May (10) AM (KD), two additional records. American Golden Plover: 14 Mar. (1) SB (KD). Black-bellied Plover: 15 May (3) AM (KD). Common Snipe: last 22 May (1) AM (KD), max. 27 Mar. (178) AM (KD). Spotted Sandpiper: first 17 Apr. (2) SB (KD), then regular to 23 May (2) MB (KD). Solitary Sandpiper: first 21 Mar. (1) AM (KD), then regular to 15 May (7) AM, MB (KD), max. 10 Apr. (9). Greater Yellowlegs: first 4

Mar. (1) SB (KD), last 8 Moy (1) (KD), max. 17, 26 Apr. (16). Lesser Yellowlegs: first 21 Mar. (1) AM (KD), last 8 May (4) MB (KD), max. 18 Apr. (8). Pectoral Sandpiper: first 6 Mar. (2) SB (KD), last 17 Apr. (10) SB (KD), max. 12 Apr. (29) SB (KD). Least Sandpiper: last and max. 15 May (47) AM, MB (KD). Semipalmated Sandpiper: 2 May (2) AM (KD), 15 May (1) MB (KD). Herring Gull: last 27 Apr. (1) CL (KD, RE), max. 6, 21 Mar. (6) CL (KD). Ring-billed Gull: last 15 May (1) AM (KD), max. 6 Mar. (86) CL (KD). Bonaparte's Gull: 27 Mar. (1), 10 Apr. (3), 18 Apr. (5) all CL (KD). Black Tern: 2 May (1) CL (KD, RE). Yellow-billed Cuckoo: first 20 Apr. (1) C (RS). Black-billed Cuckoo: first 24 Apr. (1) TRG (KD), last 6 May (1) CB (KD), with two additional records. Barn Owl: 22 May (1) AM, observed dead, caught in barn "couple" days earlier (KD); 23 May (2), appeared freshly killed on I-24 foot of Lookout Mt. (JD).

Goatsuckers-Swallows: Chuck-will's-widow: first 30 Apr. (TOS). Whip-poor-will: first 18 Apr. (1) C (RS). Common Nighthawk: first 22 Apr. (2) downtown Chattanooga (KD). Chimney Swift: first 31 Mar. (1) C (RS). Ruby-throated Hummingbird: first 16 Apr. (1) R (AW). Yellow-bellied Sapsucker: last 30 Apr. (TOS). Eastern Kingbird: first 8 Apr. (1) C (RS). Great Crested Flycatcher: first 15 Apr. (1) C (RS). Acadian Flycatcher: first 22 Apr. (1) R (AW). Least Flycatcher: 30 Apr. (1) (AW). Eastern Wood Pewee: first 16 Apr. C (RS). Tree Swallow: first 7 Mar. (1) AM (KD), max. 27 Apr. (50) SB (KD); last 30 Apr. (TOS). Bank Swallow: first 26 Apr. (1) AM (KD), max. 8 May (15) AM (KD), last 9 May (1) GP (KD). Rough-winged Swallow: first 21 Mar. (1) SB (KD). Cliff Swallow: first 5 Apr. (1) (AW). Purple Martin: first 8 Mar. (1) C (RS). Red-breasted Nuthatch: 24 Mar. (7) BWP (JD), 30 Apr. (six birds by three parties on TOS Count), last 13 May (1) C (RS). Brown Creeper: last 25 Apr. (1) C (RS). House Wren: 17 Apr. (1) MP (KD), 25 Apr. (1) R (AW), 1 May (1) TRG (KD), 18 May (2) (KD). Winter Wren: last 30 Apr. (1) AM (JD on TOS Count). Short-billed Marsh Wren: 12, 18 Mar. (1) MP (TLR), 15 May (3) MB (KD). Long-billed Marsh Wren: 22 May (1) AM (KD), 23 May (2) MB (KD, RE). Catbird: first 20 Mar. (1) C (RS). Wood Thrush: first 8 Apr. (1) C (RS). Hermit Thrush: last 30 Apr. C (RS on TOS Count). Swainson's Thrush: 22 Apr. (1) R (AW), 30 Apr. (TOS). Blue-gray Gnatcatcher: first 27 Mar. (1) C (RS). Golden-crowned Kinglet: last 14 Apr. (1) C (RS), 13 Mar. (12) TRG (KD). Ruby-crowned Kinglet: last 9 May (1) C (RS). Water Pipit: last 7 May (1) MB (KD), max. 6 Mar. (80) SB (KD). Cedar Waxwing: last 29 May (9) PP (KD), flocks usually under 25.

Vireos-Sparrows: White-eyed Vireo: first 2 Apr. (1) C (RS). Yellow-throated Vireo: first 4 Apr. (1) TRG (KD). Red-eyed Vireo: first 15 Apr. (1) CB (KD). Warbling Vireo: 23 Apr. (1) C (RS). Black-and-white Warbler: first 28 Mar. (2) SD (KD). Prothonotary Warbler: first 3 Apr. (1) MP (KD). Worm-eating Warbler: 10 Apr. (1) C (RS). Golden-winged Warbler: 24 Apr. (1) RR (KD), 29 Apr. (1) CB (KD). Blue-winged Warbler: first 9 Apr. (1) CB (KD). Tennessee Warbler: first 24 Apr. (1) RR (KD), last 16 May (1) (KD), max. 9 May (6) (KD). Orange-crowned Warbler: 30 Apr. (2) C (RS). Nashville Warbler: 10 May (1) C (RS). Parula Warbler: first 16 Apr. (1) C (RS). Yellow Warbler: first 15 Apr. (1) C (RS). Magnolia Warbler: 24 Apr. (1) RR (KD), 9 May (2) TRG (KD). Cape May Warbler: first 16 Apr. (1) C (RS), last 18 May (1) C (RS), max. 9 May (3). Black-throated Blue Warbler: 24 Apr. (1) RR (KD), 1

May (1) TRG (KD). Myrtle Warbler: last 30 Apr. (TOS). Black-throated Green Warbler: first 13 Mar. (1) TRG (KD). Cerulean Warbler: first 4 Apr. (1) MP (KD). Blackburnian Warbler: 30 Apr. (TOS). Yellow-throated Warbler: first 2 Apr. (1) CB (KD). Chestnut-sided Warbler: 24 Apr. (1) C (RS). 8 May (1) MP (KD). Bay-breasted Warbler: 1 May (1) TRG (KD), 2 May (1) C (RS). Blackpoll Warbler: first 30 Apr. (TOS), last 22 May (1) (KD), max. 9 May (3). Prairie Warbler: first 3 Apr. (3) TRG (KD). Palm Warbler: last 15 May (1) AM (KD). Ovenbird: first 8 Apr. (1) CB (KD). Northern Waterthrush: 13 Apr. (1) C (RS), 9 May (1) TRG (KD). Louisiana Waterthrush: first 27 Mar. (1) C (RS). Kentucky Warbler: first 12 Apr. (1) PP (KD). Connecticut Warbler: 15, 21 May (1 each) C (RS), 22 May (1) CB (KD). Yellowthroat: first 3 Apr. (2) MP (KD). Yellow-breasted Chat: first 16 Apr. (1) R (AW). Hooded Warbler: first 4 Apr. (1) TRG (KD). Canada Warbler: first 24 Apr. (1) C (RS), last 16 May (1) R (AW), max. 9 May (4). American Redstart: first 3 Apr. (1) TRG (KD). Bobolink: first 2 May (5) AM, MB (KD), last 11 May (25) CB (KD), max. 7 May (200+) MB (KD). Orchard Oriole: first 15 Apr. (1) R (AW). Baltimore Oriole: first 24 Apr. (1) C (RS), last 10 May (1) PP (KD). Rusty Blackbird: last 23 May (1) (TLR). Scarlet Tanager: first 12 Apr. (1) PP (KD). Summer Tanager: first 15 Apr. (2) CB (KD). Rose-breasted Grosbeak: first 5 Apr. (1) MP (TLR), last 20 May (2) (TLR), max. 8 May (3). Blue Grosbeak: first 18 Apr. (1) (KD). Indigo Bunting: first 17 Apr. (2) C, R (RS, AW). Dickcissel: 7 May (3) MB (KD), 29 May (1) (KD). Purple Finch: last 3 Apr. (3) MP (KD), very few records, max. 27 Mar. (15) CL (KD). Pine Siskin: 27 Mar. (1), 9 Apr. (1) R (AW). Savannah Sparrow: last 15 May (4) MB, AM (KD). Grasshopper Sparrow: first 10 Apr. (2) SB (KD). Vesper Sparrow: last 24 Mar. (1) CB (KD), max. 27 Mar. (11) CL, MP (KD). Lark Sparrow: 18 Apr. (1) HIA (KD). Slate-colored Junco: last 30 Apr. (TOS). White-crowned Sparrow: 18 Apr. (2) HIA, 2 May (3) AM (KD). White-throated Sparrow: 9 May (2) TRG (KD). Fox Sparrow: last 30 Apr. (TOS). Lincoln's Sparrow: 15 May (1) AM (KD). Swamp Sparrow: last 9 May (1) GP (KD).

Locations: R—Redbank, TRG—Tennessee River Gorge, MB—Moccasin Bend, CL—Chickamauga Lake, HIA—Hiwassee Island Area, MP—Morse Pond, Ga., AM—Amnicola Marsh, SB—Savannah Bay, C—Collegedale, WB—Waconda Bay, SD—Stone Door, Grundy County, CB—Chickamauga Battlefield, Ga., GP—Goose Pond, Grundy County, RR—Reflection Riding, BWP—Booker T. Washington State Park, PP—Point Park.

Observers: JD—Jon DeVore, KD—Kenneth H. Dubke, RE—Roy Evenson, TLR—Theo L. Rogers, RS—Roger Swanson or Chuck Turner, TOS—T.O.S. Spring Count, FW—Frank Ward, AW—Adele West.

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

GREENEVILLE—*Grebe-Vulture:* Pied-billed Grebe: 24 Mar. (1) M. Great Blue Heron: 19 Apr. (1) RF. Green Heron: 8 May (1) RF. Yellow-crowned Night Heron: 29 Mar. (1) RF, 2 Apr. (4) RF, 21 Apr. (2) GrC, 10 May (4) RF. Canada Goose: 21 Mar. (6) RF. Mallard: 10 Mar. (4), 22 Mar. (2) RF. Blue-winged Teal: 5 Mar. (2), 7 Mar. (2) RF. Wood Duck: 24 Mar. (2)

LC, 3 Apr. (2) GrC, 16 Apr. (2) RF, 21 Apr. (1) GaC. Black Vulture: 21 Mar. (2) RF, 17 Apr. (1) RF.

Hawks-Cuckoos: Sparrow Hawk: 4 Mar. (2) daily through 2 Apr. RF. Woodcock: 1 Apr. (1) M, 29 Apr. (4) CSM (RS). Common Snipe: 10 Mar. (1) RF, 1 Apr. (1) M, 18 Apr. (1) RF. Solitary Sandpiper: 11 Apr. (1) RF. Lesser Yellowlegs: 26 Mar. (1) RF. Yellow-billed Cuckoo: 20 Apr. (1) RF.

Owls-Waxwings: Barn Owl: 20 Mar. (1) RF. Screech Owl: 21 Mar. (1) RF. Chimney Swift: 10 Apr. (6) G, 16 Apr. (3) RF. Ruby-throated Hummingbird: 20 Apr. (1) RF. Great Crested Flycatcher: 21 Apr. (1) GrC. Phoebe: 11 Mar. (1) RF, 13 Mar. (1) RF. Barn Swallow: 2 Apr. (2) RF. Purple Martin: 12 Mar. (2), 13 Mar. (10) CA. Raven: 9 May (2) CSM (RS). White-breasted Nuthatch: 11 Mar. (2) M. Catbird: 12 Apr. (1) RF. Brown Thrasher: 9 Mar. (1) LC. Bluebird: 11 Mar. (1) GrC, 21 Mar. (1), 22 Mar. (1) RF. Ruby-crowned Kinglet: 1 Apr. (1), 2 Apr. (1) RF. Cedar Waxwing: 14 May (30) RF, 21 May (35) G (RS).

Warblers-Sparrows: Prothonotary Warbler: 9 Apr. (1) W, 15 May (6: 2 adult, 4 young) W. Parula Warbler: 5 Apr. (1) M. Yellow Warbler: 19 Apr. (1) RF. Red-winged Blackbird: 8 Mar. (50 males) RF. Brown-headed Cowbird: 19 Mar. (50) RF. Purple Finch: 7 Apr. (10) RF. Rufous-sided Towhee: 13 Mar. (1) RF. Slate-colored Junco: 13 Mar. (1) RF, 1 Apr. (5) MC. White-crowned Sparrow: present through Mar., Apr.; last 10 May (1) RF.

Locations: CA—Cross Anchor, CSM—Cold Spring Mountain, GaC—Gap Creek, GrC—Grassy Creek, G—Greenville, M—Marvin, MC—Mount Carmel, LC—Lick Creek, RF—Roaring Fork Creek, W—Warrensburg.

Observers: RN—Richard Nevius, RS—Royal Spees.

RICHARD NEVIUS, Route 3, Greenville 37743.

BRISTOL—*Loons-Widgeons:* Common Loon: 18 Apr. (4) SHL, 23 Apr. (2) SHL, 29 May (2) SHL (WC). Pied-billed Grebe: regular until last 23 Apr. (1). Great Blue Heron: 1 Mar. (32) PHL (WC, HH), 24 Mar. (1) SV, 23 Apr. (1) SHR. Green Heron: 23 Apr. (1). Mallard: regular 1 Mar. to 23 Mar. (6) max. SHL. Black Duck: 1 Mar. (6) PHL. Green-winged Teal: 5 Mar. (2), 14 Mar. (2), 15 Mar. (3), 16 Mar. (2) all SHL. Blue-winged Teal: a few regular from 13 Mar. (4) to 25 Mar. (3) all SHL, max. 15 Mar. (7) and 16 Mar. (7). American Widgeon: regular and numerous from 1 Mar. (17) PHL to 25 Mar. (85) SHL, max. 23 Mar. (100) SHL. European Widgeon: one adult male present from 13 Mar. to 25 Mar. SHL, Va. observed by: CF, WC, HH, LH, TF, BB, CS, DM, JS, BQ; additional note to be published elsewhere.

Wood Duck-Coots: Wood Duck: 22 Mar. (2) SHR. Ring-necked Duck: 16 Mar. (1). Lesser Scaup: 7 Mar. (24) SHL. Bufflehead: 22 Mar. (7) SHR. Hooded Merganser: 24 Mar. (4) SV (WC, JS). Black Vulture: 7 Mar. (18) SHL, 22 Mar. (1). Cooper's Hawk: 17 Apr. (1) SHL, 30 Apr. (1). Red-tailed Hawk: 7 Mar. (1) SHL, 13 Mar. (2) SHL, 15 Mar. (1), 25 Mar. (1), 17 Apr. (1). Red-shouldered Hawk: 4 Mar. (1) SV (WC, CC), 24 Mar. (1) SV (WC, JS), 18 Apr. (1) SHL (WC). Marsh Hawk: 27 Apr. (1) BCC (WC, DM). Osprey: 23 Apr. (2) SHL, Tenn. (only record), 29 Apr. (4)

BL. Sparrow Hawk: regular during period. American Coot: regular 1 Mar. to 25 Mar., max. 7 Mar. (9) SHL.

Woodcocks-Pewees: American Woodcock: 4 Mar. (3) SV (WC, CC, JS), 5 Mar. (1), 3 May (4), 10 May (1). Common Snipe: 4 Mar. (1) SV, 12 Mar. (2) SHL, 25 Mar. (3) BT. Spotted Sandpiper: 29 Apr. (8) BL, 17 May (1) SHL. Solitary Sandpiper: 29 Apr. (2) BL. Greater Yellowlegs: 29 Apr. (1) BL. Dunlin: 16 May (1) SHL (WC). Ring-billed Gull: regular to 25 Mar. (6) last, max. 5 Mar. (29) SHL. Common Tern: 27 May (1) SHL (WC). Yellow-billed Cuckoo: 4 May (1) first. Black-billed Cuckoo: 23 Apr. (3) first. Great Horned Owl: 1 Mar. (1) SV (JS). Chuck-will's-widow: 22 Apr. (1) SHR (HWN) first. Whip-poor-will: 31 Mar. (1). Common Nighthawk: 20 Apr. (1). Chimney Swift: 31 Mar. (4) first. Ruby-throated Hummingbird: 19 Apr. (1). Red-bellied Woodpecker: regular until 29 Mar. Red-headed Woodpecker: 10 Mar. (1), 25 Mar. (1). Yellow-bellied Sapsucker: 16 Apr. (1) last. Eastern Kingbird: 18 Apr. (2) first. Great Crested Flycatcher: 17 Apr. (1) first. Eastern Phoebe: 19 Mar. (1). Acadian Flycatcher: 13 May (1). Wood Pewee: 13 May (2) first.

Larks-Vireos: Horned Lark: 13 May (3) SV. Tree Swallow: 29 Apr. (2), 16 May (7) SHL, 31 May (2) TCA (WC) late. Bank Swallow: 16 May (18) SHL. Rough-winged Swallow: 16 Apr. (2) first. Barn Swallow: 1 Apr. (1) first. Cliff Swallow: 16 May (9) SHL. Purple Martin: 24 Mar. (1) first. Brown Creeper: 26 Mar. last. House Wren: 9 Apr. (1) first. Catbird: 18 Apr. (1) first. Robin: increased steadily after 5 Mar. Wood Thrush: 13 Apr. (1) first. Blue-gray Gnatcatcher: 17 Apr. (1) first. Golden-crowned Kinglet: 24 Mar. (1) SV, 25 Mar. (1) BT last. Ruby-crowned Kinglet: 11 Apr. (1) BT, 13 Apr. (3) SHL, 23 Apr. (2) BT last. Cedar Waxwing: regular from 20 Mar. to 31 May (32). Loggerhead Shrike: numerous and regular, few in May. White-eyed Vireo: 18 Apr. (1) first. Red-eyed Vireo: 16 Apr. (1) first.

Warblers-Sparrows: Black-and-white Warbler: 21 Apr. (1) first. Worm-eating Warbler: 29 Apr. (1). Tennessee Warbler: 13 May (1) SV. Parula Warbler: 16 Apr. (1) first. Yellow Warbler: 10 Apr. (1) first. Magnolia Warbler: 13 May (2). Cape May Warbler: 19 Apr. (1) Myrtle Warbler: max. and last 23 Apr. (12). Black-throated Green Warbler: 13 May (1) SV. Bay-breasted Warbler: 13 May (1) HM Sullivan Co. Blackpoll Warbler: 13 May (1) SV, Pine Warbler: 16 Mar. (1) SV, 13 Apr. (1) SHL. Prairie Warbler: 13 Apr. (4) first. Ovenbird: 29 Apr. (6). Louisiana Waterthrush: 17 Apr. (1) first. Kentucky Warbler: 23 Apr. (1) first. Yellowthroat: 23 Apr. (1) first. Yellow-breasted Chat: 24 Apr. (1) first. Hooded Warbler: 13 May (2) first. Canada Warbler: 1 May (1) first. American Redstart: 21 Apr. (1) first. Bobolink: 13 May (1) SV (WC). Red-winged Blackbird: 7 Mar. (4) first. Orchard Oriole: 29 Apr. (3) first. Baltimore Oriole: 21 Apr. (1) first. Rusty Blackbird: 28 Mar. (5) SV, 24 Mar. (1) SV, 19 May (2) BT. Common Grackle: 5 Mar. (200) first. Brown-headed Cowbird: 4 Mar. (9), common by 28 Mar. and afterwards. Scarlet Tanager: 17 Apr. (1) first. Summer Tanager: 23 Apr. (1) first. Rose-breasted Grosbeak: 13 May (3). Blue Grosbeak: 30 Apr. (1) HV (WC). Indigo Bunting: 30 Apr. (1). Dickcissel: 20 May (3) TCA (CC, WC), 28 May (3) TCA (WC), 31 May (2) TCA (WC). Purple Finch: 29 Mar. (1) (JA), 17 Apr. (5) PV (WC), only records of winter. Rufous-sided Towhee: regular and increasing after 4 Mar. (1). Savannah Sparrow: 17 Mar. (1), 22 Mar. (1), 25 Mar. (1). Grasshopper Sparrow: 17 Apr.

(1) first. Vesper Sparrow: 16 March (5) SV first, 24 Mar. (15) SV, 25 Mar. (1). Slate-colored Junco: 21 Apr. (2) last. Chipping Sparrow: 24 Mar. (1) SV first. White-crowned Sparrow: 9 May (3) last. White-throated Sparrow: 14 May (1) last. Swamp Sparrow: 24 Mar. (1) SV, 23 Apr. (1) SHR.

Locations: BCC—Bristol Country Club, Tenn., BL—Boone Lake, BT—Bristol, Tenn., HM—Holston Mountain, HV—Holston Valley, PHL—Patrick Henry Lake, PV—Paperville, SHL—South Holston Lake, Tenn., SHL, Va.—South Holston Lake, Virginia, SHR—South Holston River, Tenn., TCA—Tri-City Airport, SV—Shady Valley, Johnson County, Tenn.

Observers: JA—Judith Abbott, FB—Fletcher Bingham, BB—Bill Bridgeforth, CC—Carolyn Coffey, WC—Wallace Coffey, TF—Tom Finucane, CF—Carl Fleenor, HH—Harvey Hawk, LH—Lee R. Herndon, BQ—Bob Quillen, DM—David McPeak, JBS—Jim Shepherd, JS—John Shumate, CS—Charles Smith, EV—Enno vanGelder, RV—Roger vanGelder, HW—Hank Woodward, HWN—H. W. Nunley.

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ELIZABETH TON—*Loons-Gulls:* Common Loon: only 30 Apr. (1). Horned Grebe: last 26 Mar. (2) BL. Pied-billed Grebe: last 30 Apr. (2). Great Blue Heron: only 11 Mar. (4) PHL. Green Heron: first 15 Apr. (1). American Bittern: 13, 14, 15, 30 Apr. (1) MC (CRS). Mallard: last 30 Apr. (2). Black Duck: last 11 Mar. (12). Gadwell: last 26 Mar. (10). Green-winged Teal: 26 Mar. (2) BL. Blue-winged Teal: 30 Apr. (2). American Widgeon: last 26 Apr. (30) BL. Shoveler: last 30 Apr. (2). Wood Duck: throughout the period. Redhead: last 26 Mar. (8) BL. Ring-necked Duck: last 30 Apr. (1). Lesser Scaup: last 30 Apr. (162). Common Goldeneye: last 30 Apr. (1). Bufflehead: last 30 Apr. (35). Red-breasted Merganser: last 30 Apr. (1). Sharp-shinned Hawk: 30 Apr. (4) MC (CRS). Cooper's Hawk: 6 Apr. (1). Red-tailed Hawk: 5 Mar. (1) RM, 28 May (1) HM. Broad-winged Hawk: first 9 Apr. (1) RM (FWB). Osprey: 22 Apr. (1), 30 Apr. (1), 28 May (1) HM. American Coot: last 30 Apr. (7). American Woodcock: last heard 14 Apr. (1). Common Snipe: last on 30 Apr. (4). Spotted Sandpiper: 30 Apr. (3), 15, 16, 17 May (1) (WAB). Solitary Sandpiper: first 15 Apr. (1) (HD), last 14 May (1). Lesser Yellowlegs: 30 Apr. (2) RC (LRH). Ring-billed Gull: only 26 Mar. (3), 30 Apr. (5).

Cuckoos-Vireos: Black-billed Cuckoo: first 22 Apr. (2). Barred Owl: 20 Apr. (1) RM (FWB). Chuck-will's-widow: first 23 Apr. (2) MC (CWF). Whip-poor-will: first 10 Apr. (1) (HD). Common Nighthawk: first 21 Apr. (1) (WAB). Chimney Swift: first 4 Apr. (2). Ruby-throated Hummingbird: first 30 Apr. (3). Red-headed Woodpecker: 27 Apr.-31 May (1-2) (HD). Yellow-bellied Sapsucker: last 30 Apr. (3). Hairy Woodpecker: 27 Mar. (1), 1 Apr. (1), 23 Apr. (1). Eastern Kingbird: first 13 Apr. (1). Great Crested Flycatcher: first 15 Apr. (1). Acadian Flycatcher: first 16 Apr. (1). Least Flycatcher: first 23 Apr. (1). Eastern Wood Pewee: first 30 Apr. (3). Tree Swallow: 30 Apr. (9). Bank Swallow: 30 Apr. (2), 3 May (2). Rough-winged Swallow first 1 Apr. (3). Barn Swallow: first 8 Apr. (1) (GD). Cliff Swallow: 3 May (1). Purple Martin: first 8 Mar. (1). Brown Creeper: last 27 Mar. (2). House Wren: first 15 Apr. (1). Bewick's Wren: 1 Apr. (1) and throughout May (LRH). Catbird: first 16 Apr. (2). Brown Thrasher: first 29 Mar. (1). Wood Thrush: first 8 Apr. (1) (HD). Hermit

Thrush: last 30 Apr. (1) MC (CRS). Veery: first 30 Apr. (1). Blue-gray Gnatcatcher: first 9 Apr. (2). Ruby-crowned Kinglet: last 30 Apr. (11). Cedar Waxwing: uncommon, 31 Mar. (8), 8 Apr. (2), 20 May (2). Loggerhead Shrike: uncommon since 11 Apr. White-eyed Vireo: first 16 Apr. (2). Yellow-throated Vireo: first 30 Apr. (2), last 17 May (1). Solitary Vireo: first 1 Apr. (1) (LRH). Red-eyed Vireo: first 9 Apr. (1). Warbling Vireo: first 30 Apr. (2).

Warblers-Sparrows: Black-and-white Warbler: first 9 Apr. (2). Worm-eating Warbler: first 30 Apr. (3). Golden-winged Warbler: first 30 Apr. (3). Nashville Warbler: 30 Apr. (1) MC (CRS). Parula Warbler: first 16 Apr. (1). Yellow Warbler: first 15 Apr. (1). Magnolia Warbler: only 30 Apr. (1). Black-throated Blue Warbler: first 23 Apr. (1). Myrtle Warbler: last 5 May (1). Black-throated Green Warbler: first 9 Apr. (2). Blackburnian Warbler: first 30 Apr. (3). Chestnut-sided Warbler: first 23 Apr. (1). Blackpoll Warbler: only 21 May (1) MC (CRS). Prairie Warbler: first 14 Apr. (1). Ovenbird: first 22 Apr. (1). Northern Waterthrush: only 30 Apr. (1). Louisiana Waterthrush: first 2 Apr. (1). Kentucky Warbler: first 30 Apr. (2). Yellowthroat: first 15 Apr. (2). Yellow-breasted Chat: first 23 Apr. (2). Hooded Warbler: first 22 Apr. (1). Canada Warbler: first 6 May (2). American Redstart: first 30 May (5). Bobolink: only 30 Apr. (1) (CWF). Orchard Oriole: first 17 Apr. (1). Baltimore Oriole: first 30 Apr. (3). Rusty Blackbird: last 12 Apr. (2) (HD). Summer Tanager: first 26 Mar. (1) (CRS). Rose-breasted Grosbeak: first 23 Apr. (3). Indigo Bunting: first 23 Apr. (1). Purple Finch: 5, 8 Apr. (2), 16 Apr. (1). Savannah Sparrow: 28 Mar. (1), 30 Apr. (6). Grasshopper Sparrow: first 15 Apr. (2). Vesper Sparrow: first 23 Mar. (1). Chipping Sparrow: first 4 Mar. (1) (GD). White-crowned Sparrow: last 12 May (1) MC (CWF). White-throated Sparrow: last 16 May (1) (WAB). Swamp Sparrow: only 30 Apr. (1).

Locations: BL—Boone Lake, HM—Hump Mountain, MC—Milligan College, PHL—Patrick Henry Lake, RC—Roan Creek area of Watauga Lake, RM—Roan Mountain.

Observers: FWB—Fred W. Behrend, WAB—William A. Bridgforth, Jr., HD—Mrs. Harold Dillenbeck, CWF—C. W. Fairbanks, LRH—Lee R. Hernndon, CRS—Charles R. Smith.

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