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DEVOTED TO TENNESSEE BIRDS

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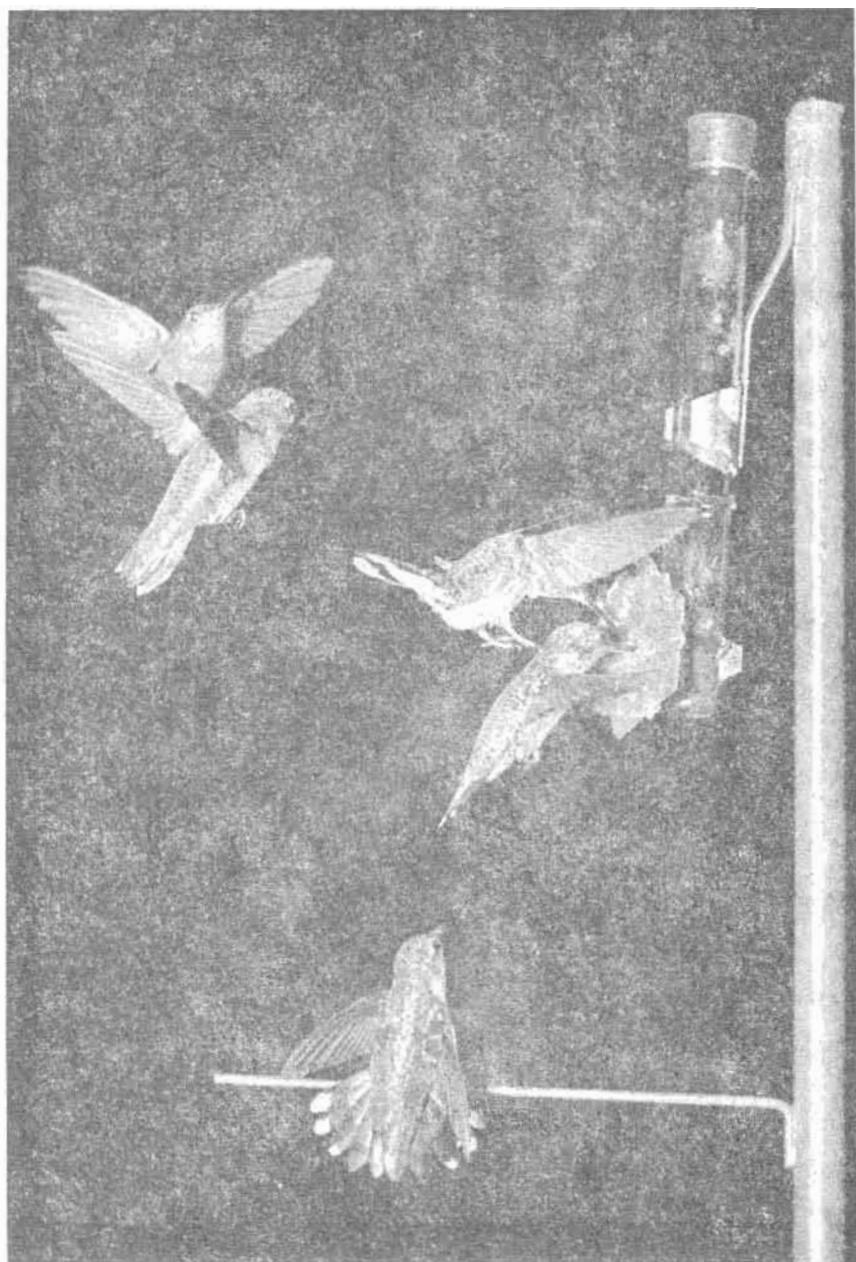
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RUBY-THROATED HUMMINGBIRDS

Photo by Charles F. Pickering

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HUMMINGBIRDS

By CHARLES F. PICKERING

For many years I have tried to attract hummingbirds to my back yard, and I finally succeeded this summer. They came about mid-summer, and my conservative figures show I fed them about one and one-half gallons of sweetened water in the proportion of one part sugar to two of water.

The feeders I had purchased earlier in the year each consisted of an ounce test tube with a red artificial flower at its lower portion. These tubes were attached to stakes at about five feet from the ground. The stakes or rods pierced a small can where the joints were soldered. This prevented ants from reaching the sugared water when the cans were filled with water or oil. I also soldered at right angles a wire one-eighth inch in diameter and eight inches long to this post, six inches below the flower. The birds would sit on this perch between drinks.

Honey-bees drank a goodly part of this mixture and were always present and a nuisance, but I could not prevent it.

I had six of these feeders and filled them morning, noon, and night for about a period of ten weeks. Later on in the summer as the number of birds lessened I wasn't quite so busy filling them.

We were sure for the greater part of the season we had twelve or more birds, but it was practically impossible to count them for they were constantly in the air and very antagonistic. They were always fighting. Two or more would meet at a station, go into combat, and fly high into the air with wings and bills clashing. They would fight coming down and clash in the dirt for a few seconds. Even with this constant fighting, there always was a bird every minute or two at the feeders.

We had only one male among the number, the rest were females.

They were fearless of me and of others who watched them. I could stand within six inches of the feeder, even holding a tube in my hand, and they would continue to drink. Standing this close, and when a bird's bill was in the hole, I could catch one with quick movement, and I did this often.

Many visitors came to see the aerial displays, the wonderful flights, and the beauty of their movements.

I made pictures in Kodachrome, both movies and stills, and also in black and white. My first pictures were made at 1/1000 of a second and I got excellent pictures of everything but the wings. I had to shoot 1/5000 of a second to stop their wing beat of fifty-five times a second. All the pictures were made with both light and camera within three feet of the

feeders. The intense light made no difference as it seemed not to frighten them in the least.

The first exposures were made by remote control, but soon I realized this wasn't necessary, so I stood by the camera and light and tripped the shutter by hand.

This rate of feeding I have mentioned was about the same for most of the day, but it was very noticeable how their rate of feeding increased in the very late afternoon. They lost most of their antagonism, and often at one feeder there would be two birds drinking at the same time from one hole with three or four more hovering close by. The later the day, the more ravenous they would seem to be.

I wondered at this increased tempo and found the answer in the January 1953 issue of "Scientific American". The paragraphs below are from this issue and written by Dr. Oliver P. Pearson, Assistant Curator of Mammals and Assistant Professor of Zoology in the Museum of Comparative Zoology at the University of California.

"Among the warm-blooded animals about the smallest is the hummingbird, some species weighing no more than a dime. As we should expect, the hummingbird has the highest rate of metabolism of any bird or animal. In a resting hummingbird each gram of tissue metabolized fifteen times as fast as a gram of pigeon and more than one hundred times as fast as a gram of elephant.

"The hummingbird wins the honor of living at a rate faster than any other animal at a cost of an enormous food consumption. The bird must devote much of its day to gathering food, mainly nectar and insects. But what happens at night? They are not adapted for night feeding. If this intense metabolism continued undiminished through the night, as it does in other birds, they would be in danger of starving to death before morning.

"For an hour before nightfall, it indulges in intensive feeding. Then the bird settles down for the night, and by the middle of the night the bird is living at a metabolic level only one-fifteenth as rapid as the daytime rate.

"This is the level at which certain mammals hibernate. The bird at night showed many signs of hibernation. It was completely torpid, practically insensible, scarcely able to move, and when it did stir, it moved as though congealed. Its body temperature had dropped to that of the surrounding air. Hibernation, then, is the metabolic magic by which hummingbirds stretch their food store from dusk to dawn.

"Before daybreak the bird's body spontaneously returns to its normal temperature and high metabolic rate. By early morning it is again warm, awake, ready to dart off in search of food."

These birds stayed with me until Oct. 21. Four birds were seen Oct. 15, two on Oct. 19, and one Oct. 21. I left town on this last date for several days, but believe they were not present in my yard later. However my sister-in-law in the other end of the city also had feeders, and her last date of one bird was Oct. 29.

CLARKSVILLE, TENNESSEE.

HAWK MIGRATION — FALL 1953

By FRED W. BEHREND

For the third year members of the T. O. S. collaborated with other ornithological organizations of the Eastern United States in the annual fall count of hawks, an undertaking directed by Chandler S. Robbins of Patuxent Research Refuge, Laurel, Maryland. Members of several chapters of the Society were afield watching for hawks during the peak of migration of Broad-wings from about the middle to the end of September, especially on the weekends of September 19-20 and 26-27. As in prior years, observations were not confined to Tennessee territory, but extended to the mountains of neighboring southwestern Virginia and North Carolina for the reason that some of the ridges in these states lead into Tennessee or close to its borders.

Numerically, results of this year's observation of Broad-wing flights were less satisfying than those of preceeding years. No really large flights were seen on any day. Weather and wind conditions on the weekend of September 19-20 were not particularly favorable. The traditional fall bird census scheduled by most chapters for September 27 naturally detracted from hawk observation activity on the latter date, when wind and weather were ideal for hawk flights. Nevertheless, 896 Broad-winged Hawks were listed during the period of September 13 to 30, and in all probability all but a few of the 209 hawks recorded as unidentifiable buteos were additional Broadwings. Of other species, the following numbers were listed from the late August to beginning of November: Sharp-shinned, 62; Cooper's, 24; Red-tailed, 54; Red-shouldered, 9; Bald Eagle, 2; Marsh Hawk, 54; Sparrow Hawk, 17; Osprey, 6; Pigeon Hawk, 1; Goshawk, 1; Duck Hawk, 3; unidentified Eagle, 1; unidentified accipiters, 19; unidentifiable as to family or subfamily, 27; a respectable total of 1385 predators. There may be some doubt respecting the correctness of the number of Marsh Hawks listed. Previous records do not seem to indicate flights of any size of this species in this territory, and the possibility of mis-identification can therefore not be ruled out.

From all appearances, migration of Broad-winged Hawks over the territory in review progressed rapidly, and without retardation caused by weather, during the 1953 fall season. A long succession of dry, sunny, warm days from August through September was broken by two brief periods of rain within the peak period of migration, on September 19 and 20 and September 25 and 26. It appears they were more local than general, and in each instance were followed by the approach of a cold front. There were a number of days on which the wind, out of the east or southeast was very feeble, but even in the face of this condition the Broadwings were on the go. For most of the migration period with its at times abnormally warm weather, thermal currents may have helped the Broadwings along. Many of these birds thus progressing at great height could have missed being seen. It was interesting to note in certain situations that hawks were not keeping close to the crest of ridges but were taking shortcuts across valleys, probably to connect with the ridge again later on or

KEY TO LOCALITIES:

- A—Hinds Ridge, 2 miles s.w. of Maynardsville, Union County, Tenn.
 B—Clinch Mountain, n.e. of Knoxville, Tenn.
 C—Jones Knob, n.e. end of Iron Mountain, southwestern Virginia.
 D—Comers Rock, n.e. end of Iron Mountain, southwestern Virginia.
 E—Walker Mountain, n.e. of Marion, southwestern Virginia.
 F—Bluff Mountain, s.e. end of Bays Mountain, Greene County, Tenn.
 G—House Mountain, n.e. of Knoxville, Tenn. (s.w. of end of Clinch Mt.)
 H—Copper Ridge, 12 miles n. of Knoxville, Tenn.
 I—Raccoon Valley below Bullrun Ridge, 3 miles n. of Clinton Pike, n.w. of Knoxville.
 J—High Knob at n.e. end of Powell Mountain, 5 miles s. of Norton, southwestern Virginia.
 K—Camp Creek Bald on crest of Appalachian Mts., Greene Co. (Tenn.) and Madison Co. (N.C.)
 L—Mendota Tower on Clinch Mountain, n.w. of Bristol, n.e. of Gate City, southwestern Virginia.
 M—Rich Mountain Tower on crest of Appalachian Mts., Greene Co. (Tenn.) and Madison Co. (N.C.)
 N—Rich Mountain Tower n.w. of Boone, North Carolina, near Blue Ridge.
 O—Blue Ridge Parkway, North Carolina and Virginia.
 P—Hump Mountain (Yellow Mts.), Carter Co. (Tenn.), Avery Co. (N.C.)
 Q—Indian Gap, western part of Great Smoky Mountains.
 R—DeKalb County, 8 miles e. of Smithville, Middle Tennessee.
 S—Smallings Bridge, Carter Co. (Tenn.)
 T—Roan Mountain, Carter Co. (Tenn.) and Mitchell Co. (N.C.)
 U—Max Patch on crest of Appalachian Mts., Cocke Co. (Tenn.) and Madison Co. (N.C.)
 V—Beaver Ridge, n. of Knoxville; Ijams Home e. of Knoxville, Tenn.
 W—Knoxville and surroundings, including Black Oak Ridge.
 X—Clinch Mountain n. of Rogersville, Tenn.
 Y—Mt. Cammerer, n.e. end of Great Smoky Mountains.
 Z—Blue Ridge at Linville, Avery County, N.C.
 AA—Crest of eastern part of Great Smoky Mountains (observation point: Charlie's Bunion).
 BB—Crest of western part of Great Smoky Mountains to beyond Clingman's Dome (observation points: Overlook s.w. of Collins Gap and Forney Ridge parking area).

KEY TO OBSERVERS: (a) Mr. and Mrs. Richard Nevius, Greeneville Chapter; (b) Mr. and Mrs. R. A. Monroe, Knoxville Chapter; (c) Dr. J. C. Howell, Knoxville Chapter; (d) J. B. Owen, Knoxville Chapter; (e) Mr. and Mrs. R. J. Dunbar, Knoxville Chapter; (f) Mr. and Mrs. Richard Nevius, Mr. and Mrs. C. M. Shanks, Mr. and Mrs. J. B. White, Greeneville Chapter; (g) Mr. and Mrs. J. B. White, Greeneville Chapter; (h) Dr. J. T. Tanner, Knoxville Chapter; (i) Arthur Stupka and H. W. Lix, Great Smoky Mountains National Park Service, Gatlinburg; (j) J. B. White, Greeneville Chapter; (k) A. F. Ganier, Nashville Chapter; (l) Mrs. W. F. Bell, Mrs. Kath-

erine Goodpasture, Miss Jennie Riggs, Miss Ruth Castles, Nashville Chapter; (m) Mrs. E. Evans and Mrs. R. Bashor, Elizabethton Chapter; (n) Dr. L. R. Herndon, Elizabethton Chapter, (o) Fall bird census participants, Knoxville Chapter (p) F. W. Behrend, Elizabethton Chapter.

* * * * *

to switch to some other ridge.

Supplementing knowledge acquired in previous years, here are some new and interesting facts concerning the migration of Broad-winged Hawks. As anticipated, and substantiated by observation on Jones Knob and Comers Rock lookout east of the Great Valley in southwestern Virginia, migration of Broad-winged and other hawks occurs along the northeastern end of the Iron Mountains near the New River. This range stretches some 80 miles southwestward past such prominent mountain tops as Mt. Rogers and Whitetop in Virginia and terminates at the Doe River at Hampton, a few miles southeast of Elizabethton, Tennessee. Likewise, as anticipated, and substantiated by observation on High Knob lookout, five miles south of Norton in southwestern Virginia, migration of Broad-winged and other hawks occurs along the northeastern end of Powell Mountain. This range stretches about 60 miles southwestward to near the eastern end of Norris Reservoir between Clinch River and Clinch Mountain on the east and Powell River and the Cumberland Mountains on the west. Another fact of interest that impressed itself more distinctly during the current season than in previous ones is that migration of Broad-winged and other hawks occurs along secondary ridges of lesser height west and east of the Great Valley of Virginia and Tennessee. Observations of this nature include Walker and Little Brushy Mountains in southwestern Virginia, Rich Mountain northwest of Boone, North Carolina, in close proximity to the Blue Ridge, and Spring Creek Mountain south of Hot Springs on the French Broad River in North Carolina. Knoxville Chapter members came up with a batch of observations of Broad-winged Hawks along some of the numerous minor ridges running more or less parallel to each other northeast of Knoxville, more specifically House Mountain, Black Oak Ridge, Beaver Ridge, Copper Ridge and Bullrun Ridge. Admittedly, in neither of these localities was the number of Broad-wings seen large. On the other hand, the time spent on observation in these places was not extensive, nor were weather and wind conditions always "right" during the periods of observation. Of considerable interest is the tracing of appreciable numbers of Broad-wings down the Great Smoky Mountains from their eastern end to as far as the vicinity of Fontana Lake. Equally interesting is the observation of a substantial number of hawks west of the Cumberland Plateau near Sparta in Middle Tennessee. No positive identification of species was made, but description of action of the birds and the total listed at specific intervals made it appear probable that these were flights of Broad-wings. This is the first evidence of hawk flights of some size in the immediate vicinity of the Cumberland Plateau.

Incorporated in this report is a list of Broad-winged Hawks recorded by members who participated in the count. Insufficient space does not permit detailing the variety of other species seen. The effort of those

members who looked for but did not see any Broad-winged Hawks, although recording other species, and who are not identified in this report, is hereby recognized. It is hoped that lack of success did not take away from enjoyment of the activity.

Results of counts in other states have been transmitted by Mr. Chandler S. Robbins. They are, listing only Broad-winged Hawks, as follows: New Hampshire, 1380; Massachusetts, 2860; Connecticut, 2150; Pennsylvania (Hawk Mountain Sanctuary), 6655; Maryland, 2986; Alabama, 15; Florida, none, but 94 other hawks; Wisconsin, 1440; Minnesota, 8255; Province of Ontario, Canada, 7991. From another source it is learned that unfavorable wind and weather conditions affected the count in West Virginia on the weekend of September 19-20, resulting in seeing the low number for that state of 547 Broad-wings on the 19th, and a mere 2 in eight locations on the 20th. On September 26th and 27th a total of only 12 Broad-wings were reported from four stations in that State.

It is fitting to recapitulate at this juncture the accomplishments of T. O. S. members in the matter of searching for and finding facts concerning the flyways of hawks over Tennessee and neighboring parts of Virginia and North Carolina. In regard to Broad-wings it may be remembered that aside from a few records of flights in the immediate vicinity of Nashville in 1945 apparently no knowledge existed of migration over Tennessee up to some five years ago. Since then, members of T. O. S. have in a remarkably short time, and from scratch, established the fact that migration of Broad-wings occurs regularly over practically the entire width of that part of the Appalachian Mountain system that embraces East Tennessee and parts of southwestern Virginia and Western North Carolina, from the Cumberlands in the West to the Blue Ridge in the East. On the west side of the Great Valley the line of successful observation extends for 200 miles from near the West Virginia border along principally the Clinch Mountains to the Cumberland Mountains west of Knoxville; on the east side of the Great Valley it extends for 170 miles from near the New River in Virginia to the southwest boundary of the Great Smoky Mountains near Fontana Lake; on the Blue Ridge and nearby transverse ridges it extends for over 100 miles from inside the Virginia border to near Asheville, North Carolina. These are short, but important, links in the long chains of mountains of the Appalachian system along which Broad-winged Hawks migrate each fall from northern breeding grounds probably to the end of these mountains in Georgia and Alabama, and thence over level country and, who knows, perhaps across the Gulf of Mexico to South America, their winter destination. There are many voids to be filled in even these short links of the chains. Members of T. O. S. are in a geographically favorable position to fill some of these voids and advance the knowledge of hawk migration. Hawk migration is doubtless an age-old occurrence, but concerted hawk migration study is still in its infancy, at least in so far as the Southern Appalachian Mountain region and other southern territories are concerned. It has a definite place in the field of bird study and is relatively as important as any other phase of ornithology that has as its aim the acquisition of knowledge of avian life.

607 RANGE ST., ELIZABETHTON, TENN.

INTERESTING BOLIVAR COUNTY, MISSISSIPPI, BIRDS

By MERRITT G. VAIDEN

This paper is the tenth in a series on the birds collected or observed in this county and published in THE MIGRANT, (Sept. 1939; June 1940; Sept. 1940; Sept. 1943; Sept. 1947; Dec. 1940; March 1952; Dec. 1952, and March 1953).

The records and specimens mentioned in this paper are from Bolivar County, Mississippi. All specimens taken are in my private collection. All subspecific identifications were made from specimens.

"And the rains came pouring—". Beginning the night of April 23, and on through the night of May 18, this area had 14.86 inches of rain. On the nights of May 10 to May 19, inclusive, we had 6.01 in. of rain. There were nine consecutive nights of thunder, lightning, and rain. During this period an odd observation was that the barometer failed to go below 29:92 at 147 feet above sea level and usually was at 30:00 or above. The birds piled up on us as the rains poured down on us. On May 10, seven hours were used in the field and along the highways where seventy-three species were counted; eleven of these were extremely rare or rare at this locality. Rains usually falling from early evening to midnight accompanied by lightning and thunder bring the migrating birds down to earth and thereby we have great concentrations following such cyclonic conditions.

BLACK-CROWNED NIGHT HERON (*Nycticorax nycticorax hoactli*). A colony of approximately fifteen birds was located in a herony composed of several species. There is no available record to show that this is not the first nesting record in the State. A bird was secured on May 23, 1953, a female. There are only five published records of the bird being collected in the State.

GREATER YELLOW-LEGS (*Totanus melanoleucus*). For the first season in thirty-four years more than five birds of this species were located in one day. Beginning with April 12 to 23, inclusive, we counted from five to twenty birds feeding along the levee in the shallow borrow-pits. This wave was much greater than the April-May wave of 1940. Normally this bird is not often observed in spring and when seen usually one or two are the total listed; we have only two records for the late summer and fall season.

BLACK-BILLED CUCKOO (*Coccyzus erythrophthalmus*). These birds were first observed on May 13 and remained here until June 4, 1953. Groups of three to fifteen of these birds were found feeding in alfalfa, oats, wheat, and grain fields.

OLIVE-SIDED FLYCATCHER (*Nuttallornis borealis*). Two of these birds were located during a pouring rain with much lightning and thunder on May 11, 1953. One, a male, was taken. This is my fifth record of observation in Bolivar County.

NASHVILLE WARBLER (*Vermivora r. ruficapilla*). A great wave of these birds came in to Legion Lake area on April 25, 1953, following a severe rainstorm with an excessive amount of lightning and thunder.

Nineteen birds were counted on a one-half mile walk along the lake shore on April 28. This wave of Nashville Warblers was greater than the wave of April-May, 1940, and about equal to the wave of May, 1923. Unusual for this bird here, we found them feeding near the ground in button-bushes and swamp privet as though they had just arrived.

WILSON'S PILEOLATED WARBLER (*Wilsonia p. pusilla*). These birds arrived in great numbers following the rain during the night of May 4. On May 6, 1953, thirteen birds were listed on a one-half hour walk along the lake shore. Bobby Collins listed twenty-three in two hours on May 5, 1953, at Legion Lake.

BOBOLINK (*Dolichonyx oryzivorus*). Following the downpour of May 3 and 4 we had several flocks of the Bobolink in alfalfa and vetch fields. All birds, over 250, were males. I have not to this date ever found a female here in spring except on one occasion when on May 9, 1940, a large flock of females was located, and several specimens secured, two miles north of Gunnison, Mississippi.

BLUE GROSBEEK (*Guiraca caerulea*). On May 5, 1953, a male was secured and on May 13, 1953, a female was collected for my second and third collections in the Yazoo Basin.

NORTHERN PINE SISKIN (*Spinus p. pinus*). Mrs. W. W. Collins first located this species feeding in her yard on the fruit of Red Mulberry on May 7, 1953, the flock numbering probably fifteen birds. Bobby Collins and I made a search immediately of the mulberry trees in the town and found numerous flocks feeding in the same manner with many other birds including Rose-breasted Grosbeaks, Scarlet Tanagers, and White-crowned Sparrows. The Siskins remained until night of May 12. On May 13 not a bird was to be found.

ARCTIC SPOTTED TOWHEE (*Pipilo maculatus arcticus*). On March 16, 1953, at 4 p.m. this bird, a female, was located feeding within fifteen feet of the residence. Children on bicycles caused the bird to fly and the chase lasted an hour before again finding it in another yard where it was collected. The skull proved this bird to be somewhat immature; gonads were undeveloped and the weight was 635 grains. I find no record available showing this bird to have been taken in Mississippi prior to this record. Identification to subspecies was made by Dr. Alexander Wetmore.

LARK SPARROW (*Chondestes grammacus*). Two birds were collected this spring. A male was secured on April 7, at Larry Wilson Lake, two miles north; and another, a female, near Lake Beulah was shot on April 22, 1953. I find these two collections the first north of the Gulf Coast Counties and the fourth and fifth collection ever to have been made in this State.

HARRIS'S SPARROW (*Zonotrichia querula*). Following much thunder, lightning, and a small shower, Bobby Collins located five of these birds feeding with English and White-throated Sparrows on a closely clipped front lawn of a residence. A bird flew to the edge of the pavement of the street where I collected a male that was not in full spring plumage; on

the next day one only was seen in the approximately same location and was secured. It was also a male in not fully matured plumage. Both birds were quite fat. The birds were secured on April 18 and 19, 1953. These collections proved to be the second and third for Mississippi, and the first collections north of the Gulf Coast Counties.

ROSEDALE, MISS.

August 9, 1953.

THE 1953 CHRISTMAS SEASON BIRD COUNTS

By T. O. S. MEMBERS

Two new localities are included in this season's Christmas Counts, Chattanooga and Big Bald Mountain, making a total of thirteen reports which are summarized here. The grand total of species reported is 115, within one of the all-time record. Five species appear on the list for the first time: Rough-legged Hawk, Sprague's Pipit, Western Meadowlark, Smith's Longspur,—all from Memphis, and Snow Bunting from Big Bald Mountain. Two appear for the second time, Least Sandpiper and Ring-necked Pheasant, both seen at Nashville.

When looking over the tabulated counts, one is challenged by the possibility of making comparisons between different localities and between different years. The relative abundance of two pairs of species interested the editor, who compiled the reports. First, the relative numbers of Turkey and Black Vultures; a check of the numbers of these two species reported in the Counts of the last five years shows that the ratio of Turkey to Black Vultures has decreased during this time, considering the State as a whole, and that the number of localities reporting more Turkey than Black Vultures has also decreased; this year the ratio of Turkeys to Blacks is 16 to 120, while in most past years the numbers have been about equal or Turkey Vultures have been more common. Secondly, the number of White-crowned Sparrows has shown a gradual increase in the past five years, when the total number is considered, when the ratio of White-crowned to White-throated sparrows is considered, and when the percentage of localities reporting White-crowned Sparrows is considered.

In the table and descriptions that follow, the localities are listed from west to east. Under the heading "Information on the Counts" are described the areas, types of habitats covered, weather conditions, number of observers or parties, miles covered, number of species, and approximate number of individual birds observed, and the names of the observers. The species and numbers of individuals observed at each locality are listed in the table except for the reports from Roan Mountain and Big Bald Mountain which are entirely included in paragraph form to enable including the altitudinal information. For additional information on records marked with an asterisk (*), see the paragraph containing the information on the locality.

TABULAR RECORD OF 1953 CHRISTMAS COUNTS

	MEMPHIS	REELFOOT	JACKSON	DUCK RIVER	NASHVILLE	LEBANON	CHATTANOOGA	GREAT SMOKIES	GREENEVILLE	KINGSPOUR	ELIZABETHTON
Horned Grebe											1
Pied-billed Grebe	4	18	2		1					1	23
Double-crested Cormorant		63		*							
Great Blue Heron	6	29		150	4	1		1	1		
Canada Goose		*		*				22			
Snow Goose				1							
Mallard	58	*		*	24					5	108
Black Duck		100		275	124				25	2	
Gadwall		115		22	5						
Pintail		108		38							
Green-winged Teal		12									13
Blue-winged Teal		7								2	
Baldpate	4			25							
Shoveller		2									
Wood Duck	1			7							
Ring-necked Duck	15	69		14	9					1	
Canvas-back	2	36			4						
Lesser Scaup Duck	267	5		300	6		9			8	
American Golden-eye		11									
Bufflehead				2							11
Ruddy Duck		1									
Hooded Merganser		9		26							
American Merganser		3									3
Turkey Vulture	6		5		1			1		3	
Black Vulture	5	43	8		54	5				5	
Sharp-shinned Hawk		1	1					1			1
Cooper's Hawk	4		3	1	3			1	2	1	1
Red-tailed Hawk	24	14	1	12	9	1	3	2	2		1
Red-shouldered Hawk	8	16	4	5	10			*1			
Rough-legged Hawk	*1										
Bald Eagle		9		*12				1			
Golden Eagle				*7							
Marsh Hawk	3	4	4	8	6						
Duck Hawk		1									
Sparrow Hawk	23	12	6	3	30	5	6	3	13		5
Ruffed Grouse								9			
Bob-white	8	2	2		24		8	22	26		
Ring-necked Pheasant					1						
Coot		1		5	1						

Killdeer	98	4	6	15	49	10	8	32	26	13	5
American Woodcock			*1								
Wilson's Snipe	29	1	10		5						
Least Sandpiper					1						
Herring Gull	2	26									
Ring-billed Gull	14	325		95	2						
Mourning Dove	44	22	10	85	129	8	512	80	216	2	8
Screech Owl	1		1		1	2			4	1	1
Horned Owl		1		1	1	4		1			
Barred Owl	4	3									
Short-eared Owl	*9			1	1						
Belted Kingfisher	6	4	1	2	8		1	5	3	3	4
Flicker	147	24	45	3	115	13	39	4	11	4	11
Pileated Woodpecker	3	5	2	1	20	2	3	15	6	1	4
Red-bellied Woodpecker	72	45	51	10	37	11	9	1	9	1	1
Red-headed Woodpecker	18		3	1	5		2		2		
Yellow-bellied Sapsucker	29	15	16	4	14	7	2	4	2	1	
Hairy Woodpecker	9	3	7		16	1	2	2	4	4	
Downy Woodpecker	62	21	17	12	87	12	16	23	21	7	18
Phoebe	2			3	2			15	1	4	3
Horned Lark	158		320		70	6	50	7	75		
Blue Jay	474	21	135	17	123	20	86	34	88	55	62
Raven								6			
American Crow	73	*	40	216	251	300	29	187	885	65	270
Black-capped Chickadee								*			
Carolina Chickadee	237	158	49	32	170	1	47	*	111	47	97
Tufted Titmouse	131	97	33	15	97	6	56	35	88	27	47
White-breasted Nuthatch	6	6	3	1	2	1	23	1	5		
Red-breasted Nuthatch					*1			55			
Brown Creeper	9	7	5		12	1	1	19	2		3
Winter Wren	22	10	27		9	1		5	3	2	
Bewick's Wren	1		2		14	5	1	3	3		
Carolina Wren	126	53	15	6	63	4	15	27	60	19	40
Mockingbird	140	18	37	9	127	26	28	18	59	27	27
Catbird			*1								
Brown Thrasher	28	2	14		1		4			*1	
Robin	145	54	116	50	*	2	1	300	15	5	32
Hermit Thrush	26	1	8		4		1	11			3
Bluebird	58	4	36	18	158	23	18	49	37	13	45
Golden-crowned Kinglet	67	28	23	1	7		5	87	1	3	35
Ruby-crowned Kinglet	20	3	9		1		1	9			
American Pipit	26		32		40			7			
Sprague's Pipit	*5										
Cedar Waxwing	180		45		62	6	50	1	5	12	1
Loggerhead Shrike	30	10	9	1	15	1	3	4	3		6
Starling	*	*	8	400	*	*	318	20	129	350	702
Myrtle Warbler	102	7	28	2	57	1	7	20	23	7	30
Pine Warbler	*1						6				

House Sparrow	359	270	230	42	280	100	17	130	155	79	115
Eastern Meadowlark	222	6	215	83	76	9	149	45	171	6	54
Western Meadowlark	*1	—	—	—	—	—	—	—	—	—	—
Red-winged Blackbird	*	*	11	*	11	—	—	—	1	—	—
Rusty Blackbird	—	5	22	1	12	—	—	—	—	—	—
Purple Grackle	*	*	4	75	*	2	—	2	2	5	1
Cowbird	*	35	4	49	2	3	—	—	—	—	—
Cardinal	617	358	97	60	566	65	105	70	166	50	90
Purple Finch	37	—	6	—	6	12	3	55	13	—	14
Pine Siskin	—	—	—	—	—	—	—	133	—	—	2
Goldfinch	171	27	44	204	272	—	24	330	99	86	272
Red Crossbill	—	—	—	—	—	—	—	90	—	—	—
Red-eyed Towhee	90	1	104	6	73	8	46	16	26	27	19
Savannah Sparrow	14	—	9	2	4	—	—	6	—	—	1
Vesper Sparrow	—	—	2	—	—	—	—	*1	*2	—	—
Slate-colored Junco	779	79	157	46	584	50	133	287	152	75	174
Tree Sparrow	—	—	—	—	3	—	—	—	*5	—	—
Chipping Sparrow	—	—	*1	—	—	—	—	—	—	—	1
Field Sparrow	303	36	20	18	147	24	46	180	65	60	70
Harris's Sparrow	7	—	—	—	*1	—	—	—	—	—	—
White-crowned Sparrow	28	40	16	1	141	3	2	*7	53	7	36
White-throated Sparrow	*	84	161	45	300	—	173	84	58	58	51
Fox Sparrow	71	81	11	2	4	1	2	—	—	—	1
Swamp Sparrow	66	167	10	90	110	—	2	1	—	1	3
Song Sparrow	472	153	24	100	238	2	55	69	69	31	51
Lapland Longspur	250	—	14	—	—	—	—	—	—	—	—
Smith's Longspur	*37	—	—	—	—	—	—	—	—	—	—
TOTAL SPECIES	79	76	67	65	78	43	48	62	52	46	51

INFORMATION ON THE COUNTS

MEMPHIS, TENN.—(1952 area slightly extended; wooded bottomlands 25%, deciduous woodlots including city parks 25%, old cottonfields, pastures, airports, and farms 25%, suburban roadsides 20%, island willow thicket and river edge 5%). Dec. 27, 1953; 6:50 a.m. to 5 p.m. Cloudy; temp. 34 to 52; wind west, 10-25 m.p.h. 30 observers in 8 parties. Total party-hours 99 (81 on foot, 18 by car), total party-miles, 223 (73 on foot, 150 by car). Total, 79 species, about 307,654 individuals. Mr. and Mrs. Ben B. Coffey Jr. (compiler), Mr and Mrs. Frederick T. Carney, Mrs. Irene Daniel, Mary Davant, Genevieve Geren, Richmond Gill Jr., Luther F. Keeton, Lawrence C. Kent, Reed Knight, Charles A. Koepke III, Harry Landis Jr., Charles A. Marcus, Jennie May, Mrs. J. H. McWhorter, Nelle Moore, George Peyton Jr., Edwin Poole, Alice Smith, R. Demett Smith Jr., Mrs. Noreen Smith, Mrs. Ellen Stringer, Mrs. Leah Torti, Dr. Wendell Whittemore, David and Donald Wilson, Edward and Mrs. Rose N. Woolridge, Orval M. Wood III.

The estimated number of blackbirds using the roost was 300,000, based on the size of the area used and the apparent density. The estimates of different species, based on proportion of each in incoming lines, were: Star-

ling, 70,000; Red-winged Blackbird, 60,000; Grackle, 160,000; Cowbird, 10,000. The roost was not checked for Rusty Blackbirds as in 1952. Western Meadowlark, Sprague's Pipit, and Smith's Longspur, identified by Mrs. Coffey and others, were wintering, and appear for the first time on a Tennessee Christmas Count, as does the Rough-legged Hawk identified by Demett Smith, George Peyton, and Richmond Gill. A male Pine Warbler was seen by Richmond Gill at a distance of 15 feet. The Short-eared Owls were present at the blackbird roost. The number of White-throated Sparrows reported was 1085.

REELFOOT LAKE, TENN., including Reelfoot Lake National Wildlife Refuge—(Essentially same area as in the past, with less coverage of the frozen lake and more along the Mississippi River; wooded bottoms 25%, wooded hillsides 20%, roadside 25%, open fields and farms 20%, lake and river 10%). Dec. 27, 1953; 6:30 a.m. to 5:30 p.m. Overcast; temp. 37 to 48; wind variable, 12 to 15 m.p.h. Lake frozen except for a few holes, water level lowest since 1930. 7 observers in 3 parties. 76 species, about 633,098 individuals. Howard and Evelyn Barbig (compiler), Thomas Walker Jr., Eugene Cypert, Preston Lane, Charles McPherson, Victor Julia.

Reelfoot Lake was completely frozen except for a few open holes, which is unusual for this time of year. The ice was too thick to use a boat and too thin for safe walking, therefore limiting activities on the lake. According to Mr. Preston Lane, refuge manager, Reelfoot Lake froze over on the night of Dec. 22, and during that day about 60,000 ducks and 2800 Canada Geese left the refuge. On the day of the count, an estimated 50,000 ducks were seen in a mass flight, coming from the direction of the Mississippi River and dropping from sight apparently at the upper end of the lake within the refuge.

The remarkable blackbird flight of past years showed a decrease from about 2 million to 540,000 Red-winged Blackbirds, 28,000 Grackles, and 8000 Starlings. Estimated number of other species were: Canada Goose, 1100; Mallard, 1000; Crow, 1988.

JACKSON, TENN.—(Same area as in 1952; river bottom 50%, open fields 25%, roadside thickets 10%, ponds 10%, upland woods 5%). Dec. 27, 1953; 6 a.m. to 5 p.m. Overcast the entire day; temp. 34 to 50; wind SE, 5 to 15 m.p.h. Two observers in one party. Total party-hours 11 (9 on foot, 2 by car), total party-miles, 50 (10 on foot, 40 by car). 67 species, 2413 individuals. Killian Roever (compiler), Mrs. W. E. Roever. The Woodcock is a regular winter resident in favorable areas here. The Catbird has been present since last October. The eye-stripe and rusty cap of the Chipping Sparrow were clearly seen.

DUCK RIVER, JOHNSONVILLE, TENN.—(Same area as in 1952, which includes the Tennessee National Wildlife Refuge at the confluence of Duck and Tennessee rivers).—Jan. 3, 1954; 8 a.m. to 5 p.m. Weather fair; temp. 22 to start, rising to 52. Wind S-SE, 7-16 m.p.h.; ground bare, ponds, sloughs and swamps not frozen. 13 observers in 3 parties. Total party-hours 20 (15 on foot, 5 in cars); total party-miles, 30 (5 on foot, 25 by car).—65 species; about 110,038 individuals.—Ruth Castles, James L. Dole, Albert F. Ganier (compiler), Al Mayfield, G. R. Mayfield, Johnny Ogden,

Douglas Oxford, Jennie Riggs, Ed and Dan Schreiber, Eugene Cypert, Mrs. Cypert and James Tucker.—At dusk, many flocks of Canada Geese winged their way from distant feeding grounds into the refuge, joining others there to roost in the flooded sloughs. Most of the Redwings listed were also coming in to roost. The Gulls were at the Johnsonville power house. None of the herons were observed in the heronry as yet. For notes on the eagles, see article in Round Table section. The group was indebted to Mr. Cypert, U. S. Fish and Wildlife Service Biologist, for making efficient arrangement.

The numbers of the more abundant species were: Double-crested Cormorant, 3000; Canada Goose, 2300; Mallard, 2000; Red-winged Blackbird, 100,000.

NASHVILLE, TENN.—(Same localities and terrain as last 3 years). Dec. 27, 1953; 6:30 a.m. to 5 p.m. Clear in a.m., overcast in p.m.; visibility good; temperature 21 degrees at start, rising to 50; wind S-SE, 5-13 m.p.h. Ground bare and frozen in a.m., no water except in creeks. 34 observers in 10 parties. Total party-hours 90 (67 on foot, 23 by car), total party-miles 154 (34 on foot, 120 by car). 78 species, about 211,364 individuals (4,933 omitting Starlings, Robins and Grackles).—B. H. Abernathy, Dr. and Mrs. Arthur A. Allen (N.Y.), J. H. and Mrs. Bailey, Mrs. Wm. Bell, Mrs. Leon DeBrohun, Henry Binkley, Mrs. K. B. Etherly, Charles Ferrell, Albert F. Ganier (compiler), Eddie Gleaves, Mrs. Katherine A. Goodpasture, Frances and Alice Hager, Wayland A. Hayes, Helen Howell, J. P. Jones, Mrs. R. E. Lynn, Al. Mayfield, G. R. and Mrs. Mayfield, Larry McClain, Edgar P. and Mrs. Mountfort, Johnny Ogden, Douglas Oxford, Wm. Parker, H. E. Parmer, Jenny Riggs, James Robins, Ed and Dan Schreiber, Mrs. Phoebe Travis, James Tucker and Ruth White.

The water birds were seen on Cumberland River, Radnor Lake (85 acres), and Jackson Lake (5 acres). The Red-breasted Nuthatch was reported by McLain and the Harris's Sparrow by Mrs. Goodpasture who observed it carefully; it (the second Nashville record) was in a roadside fence-row, with a flock of 21 White-crowns. For the following birds, the estimates are of those entering a big roost in the suburbs, on Golf Club Lane, and are presumed to include all of these species listed during the day: Robin, 4000; Starling, 200,000; Grackle, 2400. This is the 40th consecutive count for Nashville.

LEBANON, TENN.—Dec. 27, 1953. Partly cloudy, temperature about 35, wind from south. Dixon Merritt, compiler. 43 species, about 2265 individuals. The number of Starlings reported was 1500.

CHATTANOOGA, TENN.—Dec. 20, 1953. Overcast to cloudy, sleet starting about 3 p.m., temp. 28 to 45. 17 observers in 10 or fewer parties. 48 species, 2127 individuals. Mr. and Mrs. James R. Barnwell, Richard and James Barnwell, Mr. and Mrs. T. Stanley Barr, Mrs. J. D. Birchfield, Dr. Wilbur K. Butts, Miss Gladys Conner, Mrs. Leon F. Cross, Mrs. June S. Hall, Mrs. Frank A. Walsh, Mr. and Mrs. Jack R. Wilkinson, Mr. and Mrs. Eugene M. West (compiler)

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N. C.—(Same as 1937 and subsequent years).—Jan. 3, 1954, 6:30 a.m. to 6:00 p.m.

Clear to partly cloudy; temp. 25 degrees to 55 degrees; wind variable, up to 25 m.p.h. at higher altitudes, lessening in p.m.; ground bare except for lingering snow patches at high altitudes. Thirty observers in 12 parties. Total party-hours, 90 (80 on foot, 10 by car); total party-miles 149 (97 on foot, 52 by car). 62 species; about 2,904 individuals. Mary Ruth Chiles, William Cole, Hugh Davis Jr., Margaret Dickson, Larry Doyle, Robert J. Dunbar, Mary Enloe, Keeton Griffin, Joseph C. Howell, Don Hurley, John Jacobs, E. S. Janson, Richard Laurence, Mr. and Mrs. Frank Leonhard, James E. Liles, Richard Lorenz, Mr. and Mrs. R. A. Monroe, Julia I. Moore, Kenneth Newton, Mrs. E. E. Overton, Paul Pardue, Robert Scott III, William F. Searle, Mr. and Mrs. Arthur Stupka, Maryann Stupka, James T. Tanner, Samuel R. Tipton, Lois Tucker (Tennessee Ornithological Society, National Park Service, and guests).

The total number of chickadees, both Black-capped and Carolina Chickadees, was 248. The Vesper Sparrow was reported by Chiles and Leonhard, the White-crowned Sparrows by Howell and Tipton. The total number of species, 62, was a record for a Christmas Count in this area.

GREENEVILLE, TENN. (Same area as in previous years).—Dec. 28, 1953; 7:00 a.m. to 4:30 p.m. Cloudy, light rain beginning at noon; temp. 38 to 40 degrees; wind N 0-5 m.p.h. Eleven observers in 5 parties. Total party hours 30; total party-miles 125 (20 on foot, 105 by car). 52 species, 3004 individuals. Mrs. Willis Clemens, Mrs. Chester Darnell, Dr. Lee R. Herndon, Robert Herndon, Mr. and Mrs. Alfred Irvine, Mr. and Mrs. Richard Nevius (compilers), Mr. and Mrs. J. B. White, Robert K. White.

The Vesper Sparrows were identified by Mr. Clemens and Mr. White. The Tree Sparrows were found by Richard Nevius, and studied for half an hour at distances of 25 to 50 feet so that several plumage characteristics were noted; they were in a grassy meadow containing several blackberry and wild rose clumps, near Lick Creek, with a flock of about 50 Juncos. The Red-shouldered Hawk was reported by Alfred Irvine.

KINGSPORT, TENN. (Same area as in previous years).—Dec. 27, 1953; 7:30 a.m. to 5:30 p.m. Clear, temp. 20 to 45. 7 observers in 6 parties. Total number of party-hours 19, total party-miles 15. 46 species, about 1069 individuals. Mrs. Robert M. Switzer, compiler. The Brown Thrasher has remained at the home of Mrs. Switzer thru the fall and early winter; the latest date on other Thrashers was Oct. 14.

ELIZABETHTON, TENN. (Same area as in previous years).—Jan. 2, 1954; 7 a.m. to 6 p.m. Clear, temp. 22 to 48, no wind. 17 observers in 7 parties. Total party-hours 53 (36 on foot, 13 by car, 4 by boat), total party-miles 186 (34 on foot, 127 by car, 25 by boat). 51 species, 2577 individuals. Mrs. R. Bashor, D. Bashor, Mrs. F. W. Behrend, Mr. and Mrs. J. C. Browning, Mary Cook, David Fortune, Mr. (compiler) and Mrs. L. R. Herndon, Mrs. Ruth Hughes, D. Hughes, Malcolm Jones, Mr. and Mrs. J. B. Luker, Mr. and Mrs. R. May, Mrs. Hugh L. Taylor.

ROAN MOUNTAIN, CARTER-MITCHELL COUNTIES, TENN.—N. C.—From crossing of old and new roads (3750') via old road to Carvers Gap (5512'), thence west-southwest to Roan High Bluff (6285') and east to

Grassy Bald (6189'), respectively, route of descent from Carvers Gap same as on ascent; deciduous woodland 45%, spruce and fir mixed with rhododendron 35%, grassy area to some extent covered with alder bushes 20%.—Dec. 26, 1953; 7 a.m. to 5:25 p.m. Clear, temporary light cloudiness in afternoon, excellent visibility; temp. 19-30; wind NE-NW 8-30 m.p.h.; ground frozen, scattered remnants of snow. Total hours, 10½; total miles, 14 (on foot). Coopers Hawk, 1 (5500'); Red-tailed Hawk, 1 (5900'); Ruffed Grouse, 2 (3800', 5500'); Hairy Woodpecker, 1 (4650'); Downy Woodpecker, 2 (4400'); Common Raven, 2 (6300'); Am. Crow, 184 (5800-6000'); Chickadee (sp.), 2 (4950'); Tufted Titmouse, 7 (4000-4300'); Red-breasted Nuthatch, 7 (5500-5600'); Cardinal, 3 (4000'); Pine Siskin, 32 (5550-6150'); Am. Goldfinch, 1 (4100); Eastern Towhee, 1 (4000'); Slate-colored Junco, 40 (3900-6100'); Field Sparrow, 3 (4250'); Song Sparrow, 1 (3750'); TOTAL, 17 species, 290 individuals.—Fred W. Behrend (Elizabethton Chapter T.O.S.).

BIG BALD MOUNTAIN, UNICOI-YANCEY COUNTIES, TENN.-N. C.
—From east fork of Higgins Creek (3400') to Appalachian Trail (5000') and summit of Big Bald (5516'), wooded slopes of latter; deciduous woodland (3400-5300') 70% grassy treeless area (5300-5516') 30%. Jan. 1, 1954; 8 a.m. to 5 p.m. Clear, cloudless sky, excellent visibility; temp. 25-35; wind NW-W 1-15 m.p.h.; ground frozen, scattered remnants of snow. Total hours, 9; total miles, 9 (on foot). Cooper's Hawk, 1 (5250'); Ruffed Grouse, 1 (5100'); Pileated Woodpecker, 1 (3900'); Hairy Woodpecker, 3 (5000-5200'); Downy Woodpecker, 3 (5100-5200'); Blue Jay, 1 (5200'); Chickadee (sp.) 8 (3400-5000'); Tufted Titmouse, 27 (4100-5300'); White-breasted Nuthatch, 7 (4100-5300'); Cardinal, 3 (one pair at 3475', one male at 5200'); Eastern Towhee, 2 (5250'); Slate-colored Junco, 10 (4200-5300'); Song Sparrow, 1 (3500'); Snow Bunting, 1 (5500'). TOTAL, 14 species, 69 individuals.—NOTE: One Snow Bunting seen in same locality on November 29, 1953.—Fred W. Behrend, (Elizabethton Chapter T.O.S.).

THE ROUND TABLE

EAGLES AT THE DUCK RIVER REFUGE.—The concentration of eagles during the winter in the Tennessee National Wildlife Refuge, at the confluence of the Duck and Tennessee rivers, affords perhaps the best place in the country to observe Golden and Bald eagles together in numbers.

Here, in the 48,000-acre river bottom refuge, mostly wooded and waste land, swamps, sloughs, ponds and lake, thousands of wild geese, ducks and other waterfowl find food and protection during the winter season. These birds doubtless form the principal food attraction for the eagles, but cottontail and swamp rabbits are abundant and no doubt supplement the fare.

Eagles found present on the four recent all-day winter bird census trips into the refuge, are as follows:

Dec. 6, 1952—4 Golden Eagles and 8 Bald Eagles;

Dec. 21, 1952—2 Golden Eagles and 16 Bald Eagles;

Feb. 14, 1953—0 Golden Eagles and 4 Bald Eagles;

Jan. 3, 1954—7 Golden Eagles and 12 Bald Eagles.

On the Feb. 14 date, most of the ducks and geese had left. As to the apparent disproportion of Golden Eagles and Balds reported on the Dec. 21 date, the writer feels that this may possibly have been the result of lack of experience by the four observers in distinguishing Golden Eagles from immature Balds. On trips made there by the writer on May 27, 1949, and April 17, 1952, no eagles were seen.

While the Bald Eagle is known to feed principally on fish along the coasts in summer, the literature is replete with statements that both it and the Golden Eagle are quite expert at catching wild ducks, coots and even wild geese. We did not witness such a capture but at three places on Jan. 3, found piles of duck feathers.

The Bald Eagles seen on Jan. 3 were nearly all as yet without white heads and tails. Only two of the 7 Golden Eagles had reached the state of maturity where the entire tail was brown and the whitish under-wing patches no longer were present. The day being breezy, some of the Golden Eagles were indulging in playful flight high in the air, soaring in circles, diving at each other, and as many as four together at one time. While thus engaged, the bright sun reflected from their breasts a golden-brown sheen not evident in the plumage of a mounted specimen. Discussion of these eagles observed on a previous visit may be found in THE MIGRANT for Dec. 1952, page 58.—ALBERT F. GANIER, Nashville (12) Tenn.

A SHARP-TAILED SPARROW AT MEMPHIS.—Because of a three-month drouth, the annual Field Day of the Memphis Chapter, T.O.S., was transferred from Shelby Forest State Park to President's Island, now connected to and within our city limits. There, on October 25, 1953, we first worked the muddy shore and adjacent weedy areas fronting an extensive willow thicket which is just below the closure dam. After following the shoreline for a short distance, Harry Landis, Jr., and I noticed a large number of sparrows, mostly Song Sparrows mixed with a few Swamp Sparrows, very close to us in a weedy strip. We decided to look over them because of the unusual number. Almost as soon as we reached the strip a sparrow flew up from under my feet and dropped down a short distance away. It showed very outstanding buffy head markings and its actions were most unusual. Going to the place it had dropped, I almost stepped on it again and we kept following it back and forth across the strip, as it was very difficult to get a good view of it. By this time we were joined by Miss Nelle Moore, Ben Coffey, Reed Knight, and David and Donald Wilson. All together we finally got the bird into good view after following it for fifteen minutes. We observed very carefully the ochraceous buff supercilial and lower facial areas and other markings of a Sharp-tailed Sparrow. In size and shape it closely resembled our common species of sparrows. We kept after it for another long period, getting a second look, too close for binoculars.

Apparently this is the first record of *Ammospiza caudacuta* for Tennessee. There are a few records (assigned to Nelson's Sparrow, a race) for eastern Arkansas and Missouri and THE MIGRANT (21:82, 1950) gives a record by Russell for Abingdon, Virginia. On a return visit, October 31, we failed to find it and most of the other sparrows were gone also, probably having just been migrating through.

The weedy strip was composed chiefly of three-square grass and barnyard grass with some cocklebur. We are indebted to Mrs. Ben Coffey for the identification of the grasses. Mention of them was made in "Mid-South Bird Notes", October 31, 1953, and it is interesting to note in the September 1953 issue of "The Wilson Bulletin" that Richard R. Graber (page 209) mentions barnyard grass and gray leptochloa at the site of the first Sharp-tailed Sparrows recorded in Oklahoma. In the fall of 1952, Graber worked spots along the South Canadian River and these two grasses were conspicuous in the dense stands of grass where finally on October 14 he collected both Sharp-tailed and Leconte's Sparrows. He mentions one or two inches of water at the grass. Our grass and weed strip was well back from the water's edge but had been under water earlier in the year, as evidenced by the deeply-cracked earth.—GEORGE PEYTON, JR., 1521 Vance Avenue, Memphis, Tennessee.

SECOND RECORD OF EASTERN SNOW BUNTING ON BIG BALD MOUNTAIN IN EAST TENNESSEE. — Since the discovery of the Snow Bunting (*Plectrophenax nivalis*) on Big Bald Mountain in Unicoi County, East Tennessee, on November 21, 1948 (MIGRANT, 19:64, 1948), I have been searching this locality for the species in late fall or winter of successive years. Trips to the top of Big Bald on March 6, 1949, November 20, 1949, October 29, 1950, January 21, 1951, November 18, 1951, and December 7, 1952, under diverse weather conditions, were, however, of no avail, no Snow Buntings having been seen on any of them.

I decided to try again this late fall and, favored by the onset of wintry weather a few days previous, re-visited this prominent and most beautiful of Upper East Tennessee's balds on November 29, a sunny to partly cloudy day, on which the temperature ranged from 21 to 33 degrees. Two to three inches of snow covered the woodlands slopes solidly, but on the treeless grassy expanse above the timber line, which is dotted with a multitude of humps and moss, the cover of snow was spotty where exposed to the sun.

Approaching the top of Big Bald at about 5500 feet altitude, I chanced upon a small bird moving on the ground and disappearing behind one of the moss humps. When it came into view again, I readily identified it as a female Snow Bunting. Seconds later it flew down the open north slope, emitting in flight a song not heard on the previous occasion, sounding like "twill-twill". I combed the northern slope but was unable to locate this bird or any other. Returning to the summit nearly an hour later, I found what seemed to be the same bird, to judge from its appearance. After ten

minutes of following the Bunting, which seemed to prefer running to flying, I flushed it and again heard its song. Three or four hours later I walked over the summit once more and found apparently the same bird in the same place as in the morning. — FRED W. BEHREND, 607 Range St., Elizabethton, Tenn.

CECIL MCKINLEY SHANKS, 1896-1953

On December 15, 1953, the Greeneville Chapter of the T. O. S. lost by death Dr. Cecil McKinley Shanks, an inspiring and dependable member of the chapter he was instrumental in founding. Prof. Shanks was working that afternoon with his students in the physics laboratory when he was stricken with coronary thrombosis.

Dean Shanks, Professor of Physics and Geology at Tusculum College since 1924, was also Dean of Men. He was graduated from Tusculum himself in 1922. He received his M.S. degree from the University of Chicago in 1927. After many years of service, he was awarded an honorary doctorate by his Alma Mater.

Dr. Shanks, a native Greene Countian, was born in 1896. Interest in nature and the out-of-doors developed early. He explored the caves of the area and climbed the mountains which dominate the local scenery. At the same time he acquired an intimate knowledge of local history, linking the places he knew with the families and events of their past. His early-developed enthusiasm for the natural sciences and for the out-of-doors enriched his teaching and contributed to his popularity and success in activities extending beyond the classroom. He sponsored Tusculum's Outing Club. His seventeen years' service in Scouting merited him the Silver Beaver Award.

With his background of scientific training, interest in nature, and skill in guiding group activities, it is fitting that the Greeneville Chapter of the T.O.S. was organized through his efforts. In December 1946, Dr. James T. Tanner and Dr. Lee R. Herndon met with a group of interested persons at the home of Dr. and Mrs. Shanks, there accomplishing the organization of the chapter. Dr. Shanks subsequently served it at various times as president and as statistician. He was especially good at compiling field trip records into useful form; he keenly enjoyed the fall trips for watching hawk migration. He unfailingly contributed time and effort to all phases of the chapter's activities. Future accomplishments of the group must depend considerably upon the enduring qualities of his influence.—
RUTH REED NEVIUS.

DEATH OF HARRY P. IJAMS—A pioneer of bird study in the Knoxville area, Harry P. Ijams, died after a long illness on Jan. 12, 1954. A memorial will be published in the next issue of THE MIGRANT.

THE TREASURER'S HEADACHE

The Treasurer's headache can be alleviated by prompt payment of 1954 dues. If you are a chapter member, chapter treasurers will collect your dues and send them in. If not, send them directly to the T.O.S. Treasurer, Lawrence C. Kent, 1896 Cowden Avenue, Memphis (4) Tenn. Please inform him of any change of address.

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