THEMIGRANT

A QUARTERLY JOURNAL DEVOTED TO TENNESSED BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY

HPIjams 36

> JUNE 1961



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THE MIGRANT

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

VOL. 32 JUNE 1961 NO. 2



SHARP-SHINNED HAWK (Accipiter striatus)

ANNUAL AUTUMN HAWK COUNT 1961

By THOMAS W. FINUCANE

The 1960 count of southbound hawks compiled from reports of observations by members of the Tennessee Ornithological Society was the second largest in the history of the project and only a little below the total for the preceding year. The Broad-wing count was 10,135 compared to 10,998 for the last year and an average of 2,451 in excess of the eight years before 1959. The 1960 total for other hawks identified was 138 compared to 334 for 1959 and an average of 226 for the preceding eight years. The big Broad-wing counts can be attributed in part to the increase in interest and participation. This is shown by the figures for hours of observation, which were twice what they were before 1959. These comparisons are presented in detail in Table 2.

The outstanding item of the 1960 Broad-wing migration southward through our territory was the occurrence of a large flight near Chattanooga, September 25. The count, 4,985 was made at the Elder Mountain Fire Tower on this date and was certainly the most spectacular feature of the 1960 project and probably the outstanding event of the entire T. O. S. program to date. A detailed description by Mrs. Crownover will be found below in the NOTES. Also on September 25, a little to the northeast of the Elder Mountain Fire Tower, Mr. and Mrs. West and Buss Walker counted 463 Broad-wings. Fragments of this big cloud of hawks were seen in five other places, two near Knoxville and one north of Rogersville, September 25, and two in Sullivan County the day before. These five fragments had the common feature that each consisted of a concentrated flight of Broad-wings followed by complete absence of Broad-wings. ample, Mrs. Overton counted 639 Broad-wings in Dry Gap, near Knoxville, September 25, between 9:20 and 10:00 a. m. and not a single hawk after 10:00 a. m. In the same interval of time, Mrs. Darnell and Mrs. Christiansen saw 229 Broad-wings and none from 10:00 a, m, until noon when they left the observation post, the fire tower north of Rogersville. These were the largest totals for the season in the two areas and an all time record for the Knoxville area. Mrs. Overton's hawks were about 100 miles northeast of Chattanooga. They had more than five hours to arrive at Chattanooga at the crest of the big flight seen from Elder Mountain. The required average speed was less than 20 mph.

More than 600 Broad-wings were seen before noon, September 24, from Chimney Top; then for three hours afterwards no hawks of this species were observed in the area. A large flight had been observed near Kingsport 34 minutes before the first group of 300 passed over Chimney Top. Assuming that the same hawks were seen in the two locations, 13 miles apart, we calculated the average velocity to be 21 mph. Simultaneously the Broad-wings gained 2,000 ft. in altitude. At this rate, the 600

Broad-wing; would easily make the 174 miles to Chattanooga to become part of the record count there, September 25. Besides Kingsport and Chimney Top, the eastern end of the T. O. S. Hawk Project had good coverage at the Mendota Fire Tower, McQueens Knob, and Camp Creek Bald. The weather was brautiful, and the hawks were flying.

The timing of the flight from Kingsport to Chimney Top was done with the assistance of a supersonic airplane which pushed a shock wave across the gap. When this shock wave hit Chimney Top, the hawk watchers there noted the time and recorded it on their data sheet. The exact time of arrival of a kettle of 300 Broad-wings 34 minutes later was also recorded. When the shock wave hit Kingsport, many people ran out to look at the sky. Ralph Elsea saw an enormous kettle of Broad-wings right overhead. Three miles southwest, Arthur Smith saw a stream of Broad-wings approaching. He counted 124 until the flight became too heavy to count.

These observations, for September 24 and 25, accounted for more than 70% of the total hawks seen by participants in our 1960 project. On September 24, Brownsboro and Elder Mountain had poor flights despite fine weather. The big mass of hawks had not yet arrived. Although part of this mass may have been the hawks counted east of Kingsport (about 800), the coverage in this area was good; and if there had been more hawks, more would have been observed. Evidently the Broad-wings seen in the Chattanooga area were mainly from regions north and west of Kingsport. Unfortunately, there were no reports from the area between Kingsport and Knoxyille, September 24.

The Mendota Fire Tower exceeded all other lookouts, again, in number of hours of observation listed in the data. However, the total Broad-wings counted there was only 607. The largest day's count there was 237; in 1959 there were eight days with higher counts. The explanation given for the good year on the Mendota Fire Tower Knob in 1959 was that the Broadwing migration that year was largely westward through our territory. This fall (1960) the flight was more southward. The number of Broad-wings taking a course far to the east of the Mendota Fire Tower was relatively small, and so the flight was poor along the Clinch Ridge. Nevertheless, the data from any lookout becomes more significant as the number of hours of observation increases and we intend to continue accumulating experience at the Mendota Fire Tower lookout.

The movement of air masses across North America was quite different in the fall of 1969 from the pattern in 1959. In 1960 stationary fronts, or slow moving fronts, were prevalent during the Broad-wing migration. In contrast, the fronts during the 1959 season swept rapidly across the continent, with a strong north-south tilt. This difference provides a test for the hypothesis advanced last year to explain the large flow of Broad-wings westward through the eastern part of our Hawk Project area. According to this the Broad-wings made rapid progress southwest with the fronts, and large numbers then traveled west along the Clinch Ridge. This would account for the heavy early migration, the large numbers in the eastern part of our territory, and the fact that the Broad-wing count was low at all lookouts north of our territory. In 1960, the Broad-wings utilized the updrafts generated at these lookouts because the fronts were not available for rapid transit in terms of our hypothesis. Hawk Mountain, Pennsylvania, for instance, had one of its best migrations in spite of the fact that the winds were not favorable. Our migration started at least a week later this year than last year and it was light in the eastern part of our territory. Although fluctuations in the migration are brought about by other factors also, the effect of air-mass movements seems to be very definite.

Our territory is well located for elucidation of the factors that determine the fluctuations in the Broad-wing migration. As years have passed, we have learned the best locations for making counts. The present level of participation provides enough data for testing hypotheses as the one outlined above. More data, however, would be welcome. There is no aspect of bird study more interesting and enjoyable than the hawk count. Eventually, however, we should be able to show how fluctuations in the hawk migrations are related to similar features of the fall migration determined by other studies made by the Tennessee Ornithological Society.

TABLE I TOTAL HAWK COUNT BY SPECIES

	Average		
	1951-58	1959	1960
Broad-winged	2,451	10,998	10,135
Sharp-shinned	63	38	10
Red-tailed	49	124	29
Coopers	60	78	40
Marsh	17	16	13
Kestrel	13	16	19
Osprey	9	24	15
Red-shouldered	8	23	9
Peregrine	4	6	1
Bald Eagle	2	6	2
Merlin	5/8	2004	
Golden Eagle	1/8	3	

NOTES

All reports received by the T. O. S. Hawk Project are filed for future reference, and details are available for anyone interested, for example, in making an overall study some time in the future. Moreover, these details are valuable for the interpretation attempted every year in the annual report in addition to helping the coordinator comprehend local conditions. The following paragraphs are numbered to correspond with the first column of Table 2.

- On September 10, a party led by Raymond Finucane to the Mendota Fire Tower, and Holmes Ralston who was already at the lookout, logged the first Broad-wings (2) in the 1960 data.
- 3. Fred Behrend reported heavy clouds in all directions, which he suggested might be related to conditions connected with Hurricane Donna. He also reported a heavy aircraft traffic over the Holston Mountain, probably fleeing for protection from Donna.
 - 4. Two Ravens were seen in addition to the 16 hawks.
- The 15 unidentified hawks were probably Broad-wings; they were all in one flight.
- 10. Ed Gift, Pete Smith and his boys arrived as a consequence of interest generated by Adele West's contribution on hawks in the TENNES-SEE CONSERVATIONIST. They are members of the Kingsport Chapter.
 - 12. Trenton, Georgia, is 15 miles southwest of Chattanooga.

- 13. At 12:20, we saw the first group of eight soaring two by two directly over the ridge. Three or four minutes later the second group appeared at the end of the ridge (the tower is on top of a high, rocky ledge at the end of the ridge); they soared in circles, each circle larger, going higher and higher until above one layer of thin clouds; there they proceeded south again as had the smaller group. The second group circled around for several minutes, and we had lots of time to study them with our binoculars. The lighting was so poor that we could not see any colors, but their silhouettes were perfect against the gray sky.
- 18. This is the first of three reports from Mrs. James C. Robinson, now a T. O. S. member, residing in Brownsboro, Alabama. The reports are characterized by careful and complete description, including diagrams of the terrain and flight paths.
- 20. This report, also with a diagram, covers the observations at the Mendota Fire Tower the day before the appearance of a very large kettle of Broad-wings in Kingsport. Mrs. Switzer commented as follows: "Before noon the hawks flew parallel to the ridge. After 1:00 p. m. they flew north to south across the ridge. We did not notice any change of wind. All day the hawks and vultures had difficulty gaining altitude. By two o'clock there was a very heavy haze along the opposite ridge across the valley on the north side. Observation became difficult."
- 21. This report of September 24 with only 14 Broad-wings, in spite of practically perfect weather conditions, defines the front boundary of the huge mass seen on the day after on Elder Mountain. Elder Mountain itself had only 17 Broad-wings in four hours the same day. The Brownsboro report of the day before, September 23, 87 Broad-wings, was the largest number listed for Alabama in the fall of 1960 (AUDUBON FIELD NOTES, February 1961, p. 48).
- 26. Mr. Coffey reported that the hawks came in on the eastern side of the range and flew southwest over the High Knob Tower, sometimes called Flint Rock or Holston Tower, in the general direction of Elizabethton. From our station, we could see High Knob and the hawks moving along the mountain towards the tower.

The hawks came to us from the northeast and flew through Shady Valley far below our post. When they arrived even with the tower they seemed to meet a calm and would soar in circles and even flap their wings until they gained an altitude of about 80 to 100 ft. above the tower. At this point, they would resume their glide and drop swiftly away towards the High Knob Tower.

- 27. Holmes Ralston made the following comment: "The highlight of the otherwise rather slow day was a flight of 43 Broad-wings. I spotted them in a kettle as specks on the horizon very shortly after 10:30 a.m. Some flew as low as tower level."
- 28. Eight observers from the Chattanooga chapter witnessed a day to remember on Sunday, September 25, at the Elder Mountain fire tower. Participants were Mr. and Mrs. Hugh Crownover, Leo Acuff, Mrs. Naomi Banks, Miss Gladys Conner, Mr. and Mrs. H. L. Sliger, and daughter, Ginger. J. E. Lawson of the state forestry division was present as usual to assist in the count.

During the morning only 9 Broad-wings put in an appearance. "The sky seemed to burst open at 1:30 with Broad-wings boiling out of the clouds, 1,000 ft. in front of the tower and passing on the west side." 800

HAWK OBSERVATIONS FALL OF 1960

No.	Date	Ob.	þ	Lookout	Alt.	Wind	F	Sky	Shrp	Coop	Rdtl	Rdsh	Bidw	Mrsh	Ospr	Ksir	£agi	Oih
1	9/10	F	5	Mendota FT	3000	10 ESE		FR		4	2	1	2	4.17	****			3
2	11	w	3	Montlake	1850	3-8 NW	7-8	FR					****					
3	1)	В	7	Holston Mt.	4140	5-12 NE	6-7	PC			2		13	1				1
4	11	F	5	Mendota FT	3000	10 E	.,	SC	1	••••		****	15	••••				
5	12	F	4	Mendota FT	3000	10-15 NNW	7	Cı.	• • •	3			9		2	1	••••	
6	13	Se	1	Walnut Mt.	3500	5-8 NE	6	CH					46					
7	14	S	4	Mendota FT	3000	5 E	6-8	SC					207	,	-			
8	16	Sw	4	Mendota FT	3000	GP		PO			1	1.1,	30		1			73.00
9	17	R	4	Gate Cy FT		0-40 SW	5-6	BC		3	2	3	70		4	1		15
10	17	0	7	Mendota	3000	20-30 SW		SC	1	2	I		165				-,	
11	81	W	7	DeSoto FT	1600	0-3 NNE	7	CO					50					2
12	18	Sl.	6	Trenton	1600	5 NE		BC			****	111	156	-116				2
13	18	Da	3	Hi Pt. FT	2391	3-5 NW	7-8				ì		30					
14	18	Sm	3	Mendota FT	3000	0	7-8	0			_		3	••••	,	, <i>,</i> ,		
15	19	D	3	Rogrsvl FT	3000	20 SE	7	Cı		4	3	-	13	-	1	1		
16	20	L		Elder Mt.	1880	-	9			,			20					,
17	22	RW	7	Elder Mt.	1880	0-5 ES	6-8	Cr.	****		1	1.1	100	3		1		4
18	22	Rb	3	Brownsboro	765	5-12 SE	8	SC					50	2				2
19	23	Rb	3	Brownsboro	765	5-12 SE	8	Cr.					87		- 111			1
20	23	Sw	4	Mendota FT	3000	5 SW	7	0	2				50				4114	

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10-15 NW 3-8 SE-E	25-30 S	15 E		15-20 SE	0-10 S	H	5-10 ENE	5-15 NNE	5-15 NE	20-29 SE	15-20 WSW	30 SE	Strong	,	7 E	0		0		500	WSW					Ī	
	4000															1880		3000		1660						3000	
Brownsboro Elder Mt.	Camp Creek	Chim. Top	Kingsport	McQueen FT	Mendota FT	Elder Mt.	Daisy	Knox	Dry Gap	Rogrsvl. FT	Holston FT	Mendota FT	Mendota FT	Bon Air	Brainrd	Elder Mt.	Collegedale	Mendota FT	Bon Air	Near Chatt.	Elder Mt.	Elder Mt.	Elder Mt.	Sevier Co.	Cosby CG	Mendota FT	
∞ 4	9	7	- 4	4	9	2	2	12	2	67	22	7	9	7	4	4		က	4		2		4	: 4		61	197
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24 24	24	24	24	24	24	25	25	25	25	25	25	25	26	10/1	1	1	1	1	2	2	2	က	4	2	6	15	TOTALS

P=Peregrine Falcon.

swirling, circling hawks were counted as they filled the immediate area. For the next half hour birds came in smaller groups. Then the climax came at 2:30 to 3:30 when 2,550 were tallied for this single hour. First an estimated 1,000 appeared; then at 2 minute intervals they continued to come until everyone was tired of craning his neck and the counting. After a brief respite of 15 minutes 50 more birds soared by followed by four that came in directly over the tower.

31. On September 25, I first caught sight of 35 Broad-wings about 9:20 a. m. right at Dry Gap in Beaver Ridge (near Knoxville). These birds were swirling down from a fairly high elevation and soaring in a huge circle. After circling four or five times, they resumed the original elevation and continued down the ridge. Each of the big swirls had 35 to 50 birds in it with stragglers in between. The birds in the swirls I counted in fives and the stragglers individually. Some of the birds were so high that they were almost indiscernible without binoculars. Most of them, however, went into a swirl right at the gap. The light was very good and against the deep blue sky they were beautiful. The last of the Broad-wings came through just before 10 o'clock. I was in the vicinity for another hour and kept looking, but caught sight of no more Broad-wings.

While I was watching the stream of Broad-wings, I sighted the Peregrine Falcon flying quite a bit lower, but in the same general direction but veering off when it got even with the gap. It circled and soared in a different altitude before streaking off.

38, 39, 42, 43, 44, 45 show very substantial flights of Broad-wings through the Chattanooga area in early October. The Chattanooga members deserve congratulations for their outstanding contribution to the 1960 Hawk Project. We appreciate the cooperation of Mr. Lawson with the T. O. S.

SKY CODE

Sky conditions in the language of the reports were as follows: Ch—Changing; CO—Cloudy to overcast; Cr. Clear; Fr—Fog and rain; BC—Broken clouds; O—Overcast; PC—Partly cloudy; PO—Partly overcast; F—Fair; SC—Scattered clouds; TO—Thinly overcast.

See THE MIGRANT 31, 10, 1960 for BEAUFORT WIND SCALE AND TEMPERATURE CODE

KEY TO REPORTERS

F—Finucane, Kingsport; W—West, Chattanooga; B—Behrend, Elizabethton; Se—Senter; S—Arthur Smith, Kingsport; Sw—Switzer, Kingsport; R—Ruth, Kingsport; o—see note; Sl—Sliger, Chattanooga; Da—Mrs. Ralph M. Davidson and 3 students, Collegedale; Sm—J. W. Smith, Kingsport; D—Darnell, Greeneville; L—Lawson, Chattanooga; RW—Comstock and West, Chattanooga; Rb—Robinson, Brownsboro, Ala.; VC—Coffey and van Gelder, Bristol; HR—Rev. Holmes Ralston, Bristol; Cr—Crownover, Chattanooga; P—Pardue, Knoxville; O—Overton, Knoxville; RM—Roby May, Elizabethton; M—Charlotte Finucane & boys; Ba—Ben Basham, Collegedale; 88—Cub Pack 88; J—Riggs, Castles, Bishop, Nashville; TS—Barr, Chattanooga; DM—Dorothy MacLean, Gatlinburg; FG—T. O. S. Fall Gettogether, sponsored by the Greenville Chapter.

THE 1961 SPRING FIELD DAYS

By TOS Members

An all time high species count of 210 was attained, marking the first time in the history of TOS that the species list had exceeded 200. Nine of our ten chapter areas were covered and the state meeting at Reelfoot Lake, which covered a two day period. A slight innovation was instituted by some chapters for the first time, which was the beginning of the count in the afternoon of one day and discontinuing at the same hour the following day. This proved particularly advantageous to small chapters permitting more thorough coverage and affording a better opportunity to locate nocturnal species. This feature coupled with an extremely late and cool spring contributed to the high count. Also better planned area coverage and more, better trained observers also paid off in increased numbers of species.

Five species made their debut on this spring count. They were Canvasback, Pigeon Hawk, Sanderling, Caspian Tern and Red-cockaded Woodpecker. Fourteen species were represented by a single individual. Nineteen other species were reported from only one location. However, fifty-three species were reported from all ten areas. The warbler count of 37 exceeded all others by one. During the past 15 years the least number of warbler species was 31 in 1950, while 32 species have been listed 6 times. Only 37 additional species, not occurring on this year's list, have been recorded since 1946. All but four of these have been listed since 1955. All but five species occur in the annotated list beginning with Gavids through Tyrannids. The five exceptions were Icterids or Fringillids.

Most reports contained little more than the species list and numbers therefore chapter comments are being omitted. In the table of species the counts are listed, as usual, from west to east. Numbers of individuals are given for all counts, except the State Meeting at Reelfoot Lake where some species are indicated by "C" for common, "Vc" very common, "Fc" fairly common and "Ab" abundant.

TABULAR RECORD OF SPRING FIELD DAYS

SPECIES	Memphis 4-30	Reelfoot 5-6 & 7	Nashville 4-29	Cookeville 4-22 & 23	Chattanooga 4-30	Knoxville 4-30	Greeneville 4-30	Kingsport 5-13	Bristol 4-29 & 30	Elizabethton 4-29 & 30
Common Loon	20000		1	225552	1	4,,,,,,,		******	70775	2
Horned Grebe		144116	4 = 1 4 11	******	1	400304	654.00	100000	500000	10.00
Pied-billed Grebe		2	1	*****	797446		101111	1935		-0.000
Dbl-cr. Cormorant	1,400,000	16	STORY.	120712		arrest				
Gt. Blue Heron		30	1	40100		1	1	1	garage.	6
Green Heron	1	10	17	1	8	17	4	1	4	0.000
Little Blue Heron	6	10	Sec.	1	Galaira	40.000		1000	1	120115
Common Egret	THE Revent	40		Navas		100000	10000	2000	0.00	(4174)
Blkcr. Night Heron	965364	1+1++	44	(400-00)			100000		*****	
Yelcr. Night Heron	22222	3	2	******	1	******	1	9+181+	*****	1

30		THI	E MIC	GRAN	T				JUNE	
Least Bittern	111111	1								
American Bittern	44444	3	1	*****	1	******		*****	*****	****
Canada Goose			1,5%				11			
Blue Goose							2			
Mallard	CETTAGE		2			*****	5	7,5115	1	3
Black Duck					5		*****		+++1111	
Gadwall		1	*****			*****	*****	10000	51946	4104
Blue-wng. Teal	****	35	20		14	2	17	14411		1
Amer. Widgeon	2000000	34644		1924220				6100	+1+++	
Shoveller		120,0338					1			
Wood Duck	*114.1	16	11			11	4	3		1
Ring-nk. Duck										
Canvasback	1000	******	300000	-++-1	+100+01	44	441140	2	114111	
Lesser Scaup	95675500	12	30	****	*****	*****	*****		300001	2777
Hooded Merganser	311111	2		227.77		20000	22111		*****	
Common Merganser	207576		1	9	343344		4211	++17-0	63.416	
	944	1		2	100001	9000	+/****		******	
Red-br. Merganser	4	1	29			20		1.4	27	1
Turkey Vulture	4	4	33	7	2	20	8	14	37	2
Black Vulture	2	5	11	******	2	1	250000	2	1	11-
Miss. Kite	1	3	11110		0.0000	211444	+1.1111	111000	* 1 + 1 * 0	2223
Sharp-sh. Hawk	0.000	*****	2	*****		2	*****	11:00	*****	++-
Cooper's Hawk	2000	1	3	2	21111	4	3	******	*****	,,,,,
Red-tailed Hawk		3	15	1	3	1	3	11111		
Red-sh. Hawk		1	4	2	7	*****	*****	1	****	
Broad-winged Hawk	1	10111	3	2	*****	5		*****	1	
Marsh Hawk		*****		*****	+11111		1		*****	
Osprey	300000	4	1		2		******	2000	2	
Peregrine Falcon	*****	1	17717	distri-	011147	-11144		1,0,000	*****	
Pigeon Hawk	200	1	*****	******	Since.				*****	
Sparrow Hawk	*****		16	7	4	6	2	5	15	
Ruffed Grouse	*****	*****	*****	*****	*****	.000	1		V16447	
Bobwhite	16	20	35	15	20	47	8	14	22	1
Ring-nk. Pheasant	:00000	*****	30.00.00	*****	0.00000		******	011114	*****	
King Rail	*****			22222	44444	2	*****	*****	222	4111
Virginia Rail	*****		*****	93200	1	1	****		102200	-
Sora Rail	=54000	5	*14*1*	******	2	1	1	2000000	*****	
Amer. Coot	141111	75	37	2	11	,,,,,,,	2	*****	22222	
Semipal. Plover	District .	23	2		******	5				
Killdeer		18	36	7	9	45	12	13	7	0.0 +0
Amer. Woodcock	*****		4							
Common Snipe			4	2	11	23	3	*****	1121,51	
Spot. Sandpiper	***	20	26	1	11	28	8	6	8	1
1. T. 1.		28		100	200	100	0.30			
Sol. Sandpiper	70.110	22	17		21	24	8	3	227	1
Gr. Yellowlegs	313314	5	3	****	4	6	144431	4	1444.1	•
Lsr. Yellowlegs	*****	60	26		49	10	7	2	15	1
Pect. Sandpiper	******	45	2		4	19		120,720		-11
Least Sandpiper		22	3	-0100	4	11000	3	1		
Sanderling	312743	*****	25.0735	710515	500000	1375723	******	111112	1	223
Herring Gull		1	5	*****	1	*****	erated.		(1000)	9000
Ring-bld. Gull	419704	18	34	*****	400 (mb.)		111110	7	Secre	1
Laughing Gull	*1****	1	*****							

1961		TH	E M	IGRA	NT				3	1
Forster's Tern		16	*****	******	*****					-
Least Tern		1								
Caspian Tern		******	*****	******	****	111000	*****	1	*1++*	***
Black Tern	2012104	38	1			1700000				
Rock Dove	man	25.51	Section 2	22222	33	35	10	1111111	111	
Mourning Dove	7	Fc.	131	99	173	323	36	33	185	3
Yelbilled Cuckoo	1	16	5	2	10	36	1	14		
Blkbilled Cuckoo	500000	1	7222712	22/22	12221	3	3	*****		
Barn Owl	******	******	*****	2	4.4.11		*****		****	2000
Screech Owl	1	1	1	1	5	4		1	*****	2.0
Grt. Horned Owl		1	2	41.000			2	1	*****	
Barred Owl		6	6	31200		1		240000	#14 (4 (4) Y) **	
Chuck-will-wid.			29	2	8	11	1	1	1	***
Whip-poor-will	*****	*****	49		2	4	33	1	1	2
Com. Nighthawk	3	12	19		******	4	*****	23	5	
Chimney Swift	3	C.	275	37	209	388	552	275	117	14
Rt. Hummingbird	6	21	26	6	8	33	5	8	6	
Belted Kingfisher		5	15	*1+000	2	7	4	3	3	1
Flicker	3	5	22	23	34	47	16	18	84	5
Pil. Woodpecker	3	5	25	10	2	23	12	4	1	1
Red-bel. Woodpecker	15	20	74	15	21	23	14	7	7	
Red-hd. Woodpecker	15	5	9	3	23	20	8	5	6	
Yelbel. Sapsucker	*****	1	1			4	1000	ATTES		
Hairy Woodpecker	4	5	8	643000	2	4	10000	2	3	
Downy Woodpecker	8	14	57	17	14	39	20	11	69	1
Red-cocka. Woodpecker		****	34144	-11	2	11-11		1444		
Eastern Kingbird	3	Vc.	37	3	21	15	11	18	9	1
Grtcr. Flycatcher	31	25	30	3	23	36	29	20	1	
E. Phoebe		3	37	4	6	22	17	7	7	2
Yelbel. Flycatcher	112101		1	150100	10000		(44444)	1112-05	40.000	
Acadian Flycatcher	4	Fc.	16	erroll F		11		5	1	
Least Flycatcher		3	1		2	1	Combonia		2	1
Wood Pewee	30	Fc.	23	1	15	3	9	12	4	
Horned Lark	111111	29	5	4	7000	14	6	10	2	- 8
Γree Swallow	*****	Ab.	15		31	26	16	24444	8	2
Bank Swallow	100000	110	19	500000	1	17	1000000	101110		
Rwinged Swallow	2	Fc.	46	124224	16	78	10	17	46	3
Barn Swallow		C.	195	13	94	80	25	22	82	6
auta a u		10 E			100					337

Fc.

C.

Fc.

Fc.

Cliff Swallow

Purple Martin

Car. Chickadee

Tuft. Titmouse

Wht.-br. Nuthatch

Red-br. Nuthatch

Brown Creeper

House Wren

Winter Wren

Bewick's Wren

Com. Raven

Com. Crow

Fish Crow

Blue Jay

32		THE	MI S	GRAN	\mathbf{T}				JUNE	
Carolina Wren	19	Fc.	32	4	32	117	20	28	25	4
Long-b. Marsh Wren		2		22222		2	4	505500	******	
Short-b. Marsh Wren	27272	2	*****	*****			1			
Mockingbird	6	20	105	35	93	190	28	33	107	
Catbird	7	C.	41	12	63	72	34	12	51	
Brown Thrasher	7	15	38	47	50	95	35	27	109	
Robin	9	14	111	37	111	287	48	36	179	1
Wood Thrush	8	24	24	6	78	100	10	30	43	
Hermit Thrush			2	*****	*****		100000	12222	933339	
Swainson's Thrush	14	C.	61	200000	20	10		4	2	(400)
Gray-Chk. Thrush	10	Fc.	8	4-14-1	1,0111	2	21111	STORY	1	22
Veery	3	20	9		3	3	3000		10000	
Eastern Bluebird	5	10	46	26	18	17	7	-0.11+2.1	4	
Bgr. Gnatcatcher	20	C.	137	8	22	71	38	14	3	
Gold-cr. Kinglet			1	1000			22222	114013	Simi	
Ruby-cr. Kinglet		3	10		, 6	9		14-5-64	3	
Water Pipit	125335		MIL.		21.21.	11	200000	12000		10.00
Cedar Waxwing	15	Ab.	108	2	27	142	*******	101164	28	3
Shrike	1	20	36	3	7	20	4		1	
Starling	11	Fc.	500	60	433	1,554	94	50	505	3
Whteyed Vireo	30	Fc.	72	3	21	65	7	18	7	Ĭ
Yelthro. Vireo	1	20	17	6	7	28				59
Solitary Vireo		5	2		2	6	******	******	******	
Red-eyed Vireo	35	C.	109	10	156	151	15	37		
Phil. Vireo		2	2		1	1				
Warbling Vireo	(0.00)		12	22722	1	4	5	2	1	100
B. & W. Warbler	701179	Fc. 22	26	11	35	55		30	7	
Prothonotary Warbler	1 18		55	1	1	6	(16/11)			
Swainson's Warbler		Fc.	1				1555555	6427795		12.7
Worm-eating Warbler		100000	8	14444	2	9	1	16	2	
	******	1	1	(0.00)	7	14			1	
Golden-wng. Warbler Blue-wing. Warbler	1	2	23		4	8	3444	50,000	1	
Tenn. Warbler	0.0	2	36	*****	2	27	10.00	1.1	1	0-6
	26	C.		2			100000	11		-
Orange-cr. Warbler Nashville Warbler	11111	2	1 23		110.00	1 12	1	411411	401044	10
	4	12		60000	1.4 (4.4 (4.4)			10	******	4.0
Parula Warbler	4	Fc.	5	15	977	7	21	10	0.1	
Yellow Warbler	41112	Fc.	27	15	37	101	31	23	21	
Magnolia Warbler	3	Fc.	6	•	11	21	0.000	5	4	4.0
Cape May Warbler		18	7	1	6	6	15551111	1	1	
Blkthr. Blue Warbler	7751	175515	4	1.0	1	3	0.77	0.00000		
Myrtle Warbler	18	C.	431	18	155	232	37	2	23	
Blk. thr. Gr. Warbler	6	Fe.	36	12711	11	47	2	10	1	
Cerulean Warbler	13	15	30	14554	2	31	27072	24	120,000	
Blackb. Warbler	1	32	9	1111	22	30	0.000	6	414-44	
Yelthr. Warbler	1	20	23	3	9	9	10.000	9	1993	
Chestnut-sided Warbler	5	25	11	There-	26	37		3	22.00	
Bay-br. Warbler	1	28	4	***	7	19		30	*****	
Blackpoll Warbler	1	Vc.	11	53.566	4	5	1	17	10000	111
Pine Warbler	*****	*****	3		7	9		5		
Prairie Warbler	******	6	22	1	4	48		15		
Palm Warbler	. 10000	Fc.	96	1	51	14	2	121111	1	
Ovenbird	2	18	17	*****	31	17	12	22	1	

1961		TH	и м	IGRA	NT				3	3
No. Waterthrush	1	20	3		1	7		ener)	Marin	2
La. Waterthrush	4	12	39	44444	9	2	4	4	2	9
Ky. Warbler	14	12		+1011=	5	25		10	1	4
Conn. Warbler		1						17000		(1+4+)
	7000			*****	.,	1		•	(3:011)	
Mourning Warbler		******			10		40		· · · · · · · · · · · · · · · · · · ·	E9
Yellowthroat	13	C.		9	19	63	40		4	
Yelbr. Chat.	20	Fc.		3	30	69	27	42	10	39
Hooded Warbler	6	4	20	2	6	15	1	18	1	15
Wilson's Warbler		3	1	11000		****	,	2		
Canada Warbler		5	20.00	24174	1	1		5	11977	157751
Am. Redstart	8	C.	13	W1 = 6.00	*****	16	2	8	3	14
House Sparrow	10	C.	76	35	98	180	58	70	333	156
Bobolink		450	12		36	5	10000		6	8
Eastern Meadowlark	1	Fc.	213	76	164	263	110	66	111	116
Redw. Blackbird	30	Ab.	135	17	80	234	51	52	45	175
Orchard Oriole	3	Fc.	74	6	11	54	21	15	20	16
Baltimore Oriole	16	C.	12	1	10	25	15355	6	13	13
Rusty Blackbird	2000		*****	231222	2	1	2242	121111	Heri	
Com. Grackle	23	Vc.	400	100	131	519	41	105	1,461	249
Brown-h. Cowbird	120	Fc.	108	23	96	93	28	36	11	51
Scarlet Tanager	8	45	19	11	34	35	3	24	4	18
Summer Tanager	21	Fc.	59	16	20	48	24	29	12	5
Cardinal	50	Fc.	260	80	130	438	58	65	209	123
Rose-br. Grosbeak	4	Fc.	40	6	45	32	2	8	5	35
Blue Grosbeak	0111		4	1	10	6				47
Indigo Bunting	42	Ab.	155	27	119	202	40	80	41	47
Dickcissel	1	Ab.	15	71277		4	100016	5+++-4		100000
Purple Finch							1			158
Pine Siskin		••••	100	105	100	150	en.	16	es.	205
Amer. Goldfinch	10	Fc.	189	135	120	158	67	15 59	65 78	113
Rufous-sided Towhee	8	7	94 27	50	117 30	194 22	47 4		9	4
Savannah Sparrow Grasshopper Sparrow	: 4=14)11	Fc.	6	+(23)(2)	10	8	9	30	2	13
Vesper Sparrow				3000					1	
Bachman's Sparrow	6444	1	131111		100,000	1	0-110	2	1	5.455784 5517200
Slate-col, Junco	140-19-0		60600	38	1	en en en	7		3	1
Carolina Junco	170.50		127777		*	Tarres .	70000	+++++	1000	69
Tree Sparrow	******	14441		5		1000000		1000000	5	100
Chipping Sparrow	3	11	64	20	31	50	35	12	34	66
Field Sparrow	2	Fc.	65	18	63	112	34	41	35	49
White-cr. Sparrow	Freezia.	40	13	15	2	19	34	223762	17	21
White-thr. Sparrow	22	Fc.	160	67	196	301	51	54444	181	67
Lincoln's Sparrow	les) (in	25	2	309-64	30000			111111	2	
Swamp Sparrow		15	14	4	2	11	3		4	12
Song Sparrow		6	11	1	37	159	36	58	70	123
TOTAL SPECIES	89	160	159	103	135	146	101	106	109	139
Total Individuals	1,017	1,962	7,056	1,807	4,766	9,723	2,402	2,246	5,374	4,090
C	GRAND	TOTA	AL SP	ECIES	3				210	

T. O. S. ANNUAL MEETING, 1961

Under stormy skies, members of T. O. S. began to arrive at Reelfoot Lake on Thursday evening and Friday. May 4 and 5, 1961. The Ben Coffeys had come from Memphis several days previously to welcome the early arrivals. On Friday evening, with cheering warmth, Lula and Ben Coffey held open house for an overflowing group of birders in their cottage at Edgewater Beach.

On Saturday morning and afternoon, May 6, the members divided into several sections and fanned out in all directions for complete coverage of this wonderful area. Trips were made by car to the heronry near Dyersburg and to different sections along the Mississippi River. Various other groups participated in "car walks" around Reelfoot Lake. The trip to Cranetown was cancelled because the heronry had become inactive. It was thought the possible reason for this was that the birds had been disturbed by the filming of a movie in this vicinity.

Also, on Saturday afternoon at 2 p. m., the Board of Directors met at the Biological Station at Walnut Log to transact the business of the Society. This area furnished much delightful birding to those not attending the Board Meeting. The Memphis Chapter had arranged for boats to be used by the members.

At 7 o'clock Saturday evening, the annual banquet dinner was held at Boyettes' dining room. After the banquet, the members moved to the American Legion Clubhouse for the annual business meeting and program. The President, Mr. Paul Pardue, presided at the regular business meeting of the Society and presented the recommendations from the Board for the approval of the membership. All recommendations were approved. The slate of officers for 1961-1962 is as follows:

President	Ed King
	Kenneth Dubke
	Ralph Dunckel
Vice-President, West Tenn.	Mrs. Rose N. Wooldridge
Secretary	Mrs. Ruby McWhorter
Treasurer	Mr. Henry Parmer
Curator	Mr. Albert Ganier
Editor	Dr. Lee R. Herndon
	e—Mrs. Richard Nevius; Middle Ten- Jr.; West Tennessee—Mr. L. D. Thomp-

As our speaker for the evening, the Society was treated to the wit and wisdom of the dynamic Dr. Gordon Wilson as he took us along the travels of Alexander Wilson for whom the Wilson Ornithological Society was named. He tarried along Wilson's route to refresh us with many of the incidents of Civil War History. We shall long remember that we were cautioned "before we face another person" to make sure we had visited Cheek's Tavern. Dr. Wilson's message to us was both delightfully interesting as well as extremely informative. The Society then enjoyed a fine film of the Fish and Game Commission, shown by Mr. Richardson, on "Reelfoot Lake."

The final count of the birds was taken on Sunday morning at 11 o'clock at the shelter at Edgewater Beach. The compiler was Ben Coffey. The total count was 162 species. The 1958 count was 154 species.

Despite the unrelenting inclement weather, everyone enjoyed good birding, good food, good fellowship. We are deeply grateful to our hosts, the Memphis Chapter, serving as an arrangements committee, *in toto*, under the capable supervision of Chairman Mary Davant, for a truly wonderful meeting.

The President of the Nashville Chapter, Mr. Henry Parmer, invited T. O. S. to come to Middle Tennessee for the 1962 annual meeting with the Nashville Chapter as hosts.

MRS. H. C. GARLINGHOUSE, Secretary, 2012 Cedar Lane, Fountain City.

ROUND TABLE NOTES

CATTLE EGRET—FIRST TENNESSEE RECORD. — On Friday, May 5, 1961, at 4:00 p. m. a friend, Mrs. R. G. Crossno, came to get me to go identify a bird she was not able to identify. At the time we were looking at the bird I did not think it could possibly be anything but a Cattle Egret (Bubulcus ibis) just from its behavior. It was in a field with cattle and stayed at the feet of one cow constantly. It was smaller than any egret or heron I'd ever seen but had buffy crown feathers, long buffy feathers on its breast and along its back. On checking all my bird books I discovered that they are all too old to contain even a mention of the Cattle Egret. Then I remembered that I had a borrowed book that was quite new, "Living Birds of the World" by E. Thomas Gilliard, and in it I found a picture of a Cattle Heron on a nest — its bill was light and the buffy crown feathers were distinctive. Of course, most of the Knoxville TOS members were spending the weekend at Reelfoot Lake. On Saturday afternoon I was able to take Mr. Gordon Hall, formerly fish and game man with U. S. Engineers in Jacksonville, Florida, out to see the bird. He assured me that the buffy feathers were distinctive of the Cattle Egret. The bird remained in the same field all day Saturday, May 6, but could not be found on Sunday, May 7. This morning, May 8, Mr. J. B. Owen called me by long distance telephone and assured me that my description was perfect for the Cattle Egret — he has Peterson's Guide of Texas Birds which carried a detailed description.

The Cattle Egret was on a farm owned by Mr. S. C. Crosby in Anderson County, Tenn.

MRS. EARL F. OLSON, Box 390, Norris, Tenn.

WHITE-FRONTED GOOSE AT COVE LAKE. — On Sunday, March 19 there were only 29 geese remaining at Cove Lake where a high count of 163 had been made earlier in the season. On this date as I sat in the car in the roadside park, I watched 28 geese rise in flight, circle the lake then disappear over the ridge to the north.

One Canada Goose had an injured wing and it was left in mid-lake swimming in an ever increasing circle with its head and neck level with the water. For some minutes I watched it, then my attention was diverted elsewhere and when I returned to look at the goose, it had disappeared. I walked slowly along the bank near where I had last seen it and discovered it out on the bank behind a shrub. My coming alarmed it into returning to the water where it swam over to a point of land opposite my parked car. It went directly to the base of a tree and sat down, where it stayed for two hours.

MIGRANT THE

A Quarterly Journal Devoted to the Study of Tennessee Birds Published by The Tennessee Ornithological Society

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LEE R. HERNDON, Editor, 1533 Burgie Place ELIZABETHTON, TENN.

At the end of two hours the 28 geese which had flown northward returned with more honking and lit in the water between me and the point of land. As I watched them walk out of the water onto the point of land, I realized one goose had orange feet and legs. Also it was smaller than the Canadas. For some time I was afraid to take my binoculars away from this goose for fear of losing sight of it. When feeding with its head down and tail toward me only the orange feet and legs were distinctive. So I sat and studied the bird for quite a long time before I reached for my Peterson Guide and Kortright's Ducks, Geese and Swans of North America. Peterson's description - "No other goose has yellow or orange feet", convinced me that I was looking at a White-fronted Goose (Anser albifrons). Pictures in Peterson's guide were of no help. Pictures in Kortright's book assured me it was an immature White-fronted Goose. I returned to Cove Lake on March 27, 29 and April 1 and the White-fronted Goose was still there, however the Canadas had dwindled to only 3 and one of those was the injured one. When I returned to Cove Lake on April 14, only the injured Canada Goose remained.

MRS. EARL F. OLSON, Box 390, Norris, Tenn.

NOTE. This appears to be the second record of the occurrence of the Whitefronted Goose in Tenn. See THE MIGRANT: 16, 10, 1945. Ed.

BOOK REVIEW

PENGUIN SUMMER. By Eleanor Rice Pettingill. Clarkson N. Potter, Inc. New York, 197 p. \$5.00.

Penguin Summer reveals many interesting facts about Olin S. Pettingill and Eleanor Pettingill's five month trip to the Falkland Islands, islands east of southern Argentina, that could not be placed in a scientific work. The Disney Studio, True-Life Adventures, sponsored this ornithological excursion for a penguin series.

Mrs. Pettingill has a facility for presenting the physical hardships endured during this trip in a humorous manner. Her development of the two exciting incidents, Dr. Pettingill's breaking his arm and their being marooned by storm, was vivid, realistic, and dramatic. Although the many insignificant details about the people in the Falkland Islands, their thoughts, and words give the text realism, the movement of the story suffers in places because of this.

The reader is introduced to the habits of many birds native to the Falkland Islands, particularly the Gentoo, Rockhopper, and Jackass Penquins, by the writer's words and the many black and white photographs of these birds.

H. P. LANGRIDGE.

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