



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. 33

JUNE 1962

NO. 2

SOME NOTES ON WEATHER, PLUMAGE AND BEHAVIOR AS RELATED TO SHORE BIRDS DURING SUMMER MIGRATION By JOHN OGDEN

Records of shore birds at Ashland City Marsh include a number of observations on plumage and behavior during their southward migration and **some correlation** of movement with weather changes which may be of general interest. These records were obtained during fifteen trips to the marsh between 16 July, 1961 and 15 September, 1961. The marsh is in the Cumberland River bottoms about two miles down river from Ashland City, Tennessee in Cheathum County. This generally shallow slough, with many exposed tree stumps scattered over the whole area, covers an area about 800 yards long and 100 yards wide at the extremes. The surrounding mud flats vary from ten to forty yards in width.

The numbers of shore birds was more impressive than during any previous year. The apparent reason for this change was the partial drainage of this area by conservation personnel to plant duck food. This created the extensive mud flats on three sides and an island and peninsulas down the middle of the slough which had not previously existed. During the entire period of observations the size of the slough continued to decrease at a slow but steady rate forming new mud flats and leaving older exposed areas to dry up.

WEATHER

There appears to be some relationship between the movements of shore birds and the changes in weather. The accompanying chart will help to show this relationship. Cold fronts passed through on 15 July, and 6, 12, and 19 August. Censuses made on trips to this slough on days immediately following the passage of cold fronts showed significant increases over the censuses of the previous trips. Three of these post cold front trips resulted in 87, 151, and 84 percentage increases respectively in the numbers of individuals over the previous trips. A 24 percentage increase in the numbers of birds on 27 August over the previous count was the largest increase not preceded by a cold front. These post cold front peaks did not hold for long as there were 63, 27, and 29 percentage decreases respectively in the numbers of individuals on the first trips taken following such peak counts.

PLUMAGE

During this period of trips to Ashland City Marsh interesting observations on the plumages of some of these shore birds were recorded. Species which show seasonal plumage changes appeared to be completely or largely in their breeding plumages during the mid July trips. By the last third of the month a few scattered individuals were in non-breeding plumage but the big increase of birds in this plumage came during early August. The appearance of a fair percentage of birds in immature plumage occurred during early August also. By 20 August all birds appeared to be in nonbreeding or immature plumages.

In connection with these observations some notes on the Dowitchers and Stilt Sandpipers are of special interest.

The two Dowitchers seen on 16 July were in dissimilar breeding plumages. One of the birds had dark reddish-cinnamon underparts while the other was a uniform pale, pinkish-tan on its underparts. The Dowitcher seen on 7 August was a richer brown on the underparts with a greyish head and neck and only a pale tan wash across the upper breast. The rest of the underparts appeared white. This closely fits descriptions of the immature plumage of Dowitcher species. None of the Dowitchers was identified as to species, but the immature bird gave a mellow whistled note as it flew around over the slough which may be a clue to its identity.

The Stilt Sandpipers were in immature plumage. This is basically similar to the non-breeding plumage of the adults except that the back is a more strongly marked pattern of buffy, grey and black rather than uniform grey.

BEHAVIOR

Pectoral Sandpipers displayed the most interesting behavior of an individual species. They showed both intraspecific and interspecific aggressiveness not displayed by any other species. In both situations not all Pectorals displayed this behavior nor did they display it on most days observations were made.

The interspecific behavior is exemplified by their attitude toward peeps, principally Least Sandpipers. Infrequently, while in a head-high, erect position, a Pectoral would make short runs at a peep and the peep would always retreat, usually by a short flight. Neither Pectorals nor peeps were heard to give calls during this action.

The intraspecific aggressiveness was much more frequent being particularly obvious on 17 and 23 August. On these days the flock of Pectorals was spread out over a large area feeding as usual. Several of the Pectorals seemed to have established small flexible feeding territories which they aggressively defended against other Pectorals. These territories could be considered as being portable due to the type of defense that was observed. These particular Pectorals would attack any other Pectorals which approached within three to seven feet of them even though the territorial birds seemed to move at random over large areas while feeding.

The usual procedure was for the territorial bird to stop feeding and stand erect when a second bird approached. The former bird would call, sometimes rapidly, giving either a "kreek" note similar to the flight note or a series of chattering trill notes. On three occasions a bird was heard to give a series of low hollow notes while in this position.

This behavior was successful only to a limited degree as in many instances the approaching bird would continue its movements toward the territorial bird. In such a situation the territorial Pectoral would run at the second bird in the head-high position continuing to call. If the second bird retreated at this point the conflict would usually end. However, if the second bird did not retreat or if it appeared that it did not retreat fast enough the aggressive Pectoral would fly at the second bird in a slow flight with legs dangling, still calling. On all observations this resulted in the second bird retreating, usually by flight and often followed for a short distance by the territorial bird. The second bird would also give call notes, especially in flight. On some occasions the territorial Pectoral would omit the running portion of the aggressive behavior and only perform the flight portion.

This whole behavioral pattern was most intense between two birds, both of which were engaged in this territorial behavior. Conflict between two such birds would often result in a return attack by the second bird. This usually occured when the aggressive bird followed the retreating bird for greater than usual distances in flight. However, physical contact between birds was never observed in any circumstance.

Individuals engaged in this behavior often stood on tree stumps in the water in their erect head-high posit on for as long as four or five minutes without moving and occasionally giving call notes. There were times when these various call notes could be heard from all parts of the slough.

DISCUSSION

The observations concerning the territorial behavior of Pectoral Sandpipers during migration will be of more value if some attempt is made to understand the reason for this behavior. I find it hard to realize any value that these actions could have to the territorial birds that would give these birds an advantage over the other Pectoral Sandpipers. It would seem that this behavior could even be detrimental as it seems these territorial birds have less time for feeding and resting than the other members of the flock.

Hamilton (1959) made observations of territorial behavior in migrating Pectoral Sandpipers in Manitoba, Canada during the months of July and August. The birds he observed carried on behavior that much more closely resembled territorial behavior as it is performed by Pectorals on their breeding grounds than did the actions of the Ashland City birds. This consisted of larger territories with stable boundaries, considerably more display between birds and some actual combat. He believed that the actions of the birds he observed was an aftermath of the breeding-ground behavior and had no value to the birds in their present environment.

I think that the actions of the Ashland City birds supports this idea. This aftermath behavior would be the result of the lack of a complete regression of the internal stimuli which had produced the territorial behavior. In the Manitoba birds this regression had apparently only recently begun since these birds were still comparatively close to their breeding grounds and still early in their migration. In this situation the territorial urge was still relatively strong. It is to be expected that the regression would be more advanced farther south and later in the migration. This belief can be supported by the less envolved actions of the Ashland City birds.

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SPECIES: DATES:	7-	7-	7-	7-	8-	8-	8-	8-	8-	8-	8-	8-	9-	9-	9-	
	16	18	23	28	5	7	13	17	20	23	27	30	5	10	15	
SEMIPALMATED PLOVER		×1.,		1		3	2		7	••••	10	13			2	
KILLDEER	8	10	8	12	8	12	11	15	17	15	5	6				
SPOTTED SANDPIPER	1	3	4	3		3	4	5	1	2	1	2	1	2		,
SOLITARY SANDPIPER	1	1		3	7	7	6	3	2	4	2		1			
LESSER YELLOWLEGS	30	2	1	2	1	2				2	•			··· ·	4	
GREATER YELLOWLEGS							13		27	2	6	4		3	1	
PECTORAL SANDPIPER	60	16	20	34	4	3	34	30	45	30	37	23	6	11	13	
LEAST SANDPIPER	20	10	5	1	2	7	30	20	30	45	60	24	7	4	3	
DOWITCHER	2			••••		1									••••	
STILT SANDPIPER					1	2										
SEMIPALMATED SANDP.	5	4	4	1		3	8	4	15	1	5	4				
WESTERN SANDPLPER			6		۰.	<i></i>	••	1			•••	,				

TRIPS TO ASHLAND CITY MARSH — SUMMER 1961

Most large numbers have been rounded off.

JUNE

THE MIGRANT

26

THE 1962 SPRING FIELD DAYS

By T.O.S. MEMBERS

Counts were made for 11 areas over the state, including the State Meeting at Crossville which included a two day period, a count from Columbia, which was also a new area and one from Cosby. This gave a total of 193 species which has been exceeded only by the 1961 (210 species) and 1960 (195 species) counts. Undoubtedly the count would have been larger had the Reelfoot Lake area been included as it was in 1961. The rather abrupt transition from spring to summer which coincided with the time of making the counts had its effect on migration. This was quite a contrast to the spring of 1961 when cool spring weather lasted well into May, which caused individuals or small flocks to linger in our area longer than usual.

Three species were new to the list this year. They were: Cattle Egret, Greater Scaup and Red Crossbill. Twelve species were represented by a single individual while 14 additional species were reported from only one area in contrast to 14 and 19 respectively for 1961. Considering only the tabulated counts, 43 species appeared on all lists in contrast to 53 species in the 1961 lists. This possibly indicates that coverage was less thorough in 1962 than 1961.

Little information accompanied the check-lists, therefore, comments are omitted.

As is the custom, the spring counts are listed in the table progressively from west to east. The abundance of all species observed are given in figures with the number of the species and individuals for each area at the end of the table and grand totals for all species observed over the state and individuals.

Since the Cosby list was relatively short and no species listed which does not occur in the table, this list follows in paragraph form. However, the total of individuals is included in the grand total of individuals.

COSBY. — Recreation area to Low Gap in Smoky Mountains. 4-22-62. Ruffed Grouse, 4; Yellow-shafted Flicker, 4; Pileated Woodpecker, 2; Redbellied Woodpecker, 1; Hairy Woodpecker, 1; Phoebe, 1; Common Crow, 3; Tufted Titmouse, 1; Red-breasted Nuthatch, 3; Brown Creeper, 2; Winter Wren, 2; Ruby-crowned Kinglet, 5; White-eyed Vireo, 2; Solitary Vireo, 3; Black and White Warbler, 4; Yellow Warbler, 1; Black-throated Blue Warbler, 2; Black-throated Green Warbler, 3; Ovenbird, 9; Louisiana Waterthrush, 1; Scarlet Tanager, 1; Carolina Junco, 10. Total species, 23; total individuals, 65.

RICHARD NEVIUS, Greeneville.

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TABULAR RECORD OF SPRING FIELD DAYS

	Memphis 4-29	Columbia 5-2 & 3	Cookeville 4-28	Crossville 5-5 & 6	Chattanooga 4-28 & 29	Knoxville 4-29	Greeneville 4-29	Kingsport 5-13	Bristol 4-28 & 29	Elizabethton 4-28 & 29
Common Loon			0.000	991007	Sec.		122224	11010	100 million (100	2
Pied-billed Grebe		(******	2	1	2	$\mathbb{E}\left[0, w \right] = \left[w \right] = \left[0, w \right]$	11111	2	1.00	
Great Blue Heron		49.000		1	2	1	3.44.6.7	6	1	107110
Green Heron		2	2	8	9	13	7	6	1	5
Common Egret		1	120-0	1000	1	11111	******	0.000	100000	
Cattle Egret		3		0.0000	1733.17	52272.52		11-1-1	100	11111
Blcr. Night Heron	0.000	(4)321	545455	10000	2	1		62241-1	6++6+	1
Yelcr. Night Heron	$-0.5\pm 4.5\pm 1$	2	11.1111	11111	6	transfer.	2	0.000	612-455	
Am. Bittern	722220	1			2	10.04	eren k	******	and a	
Canada Goose	-	******			10000	1	11	******		A
Blue Goose			(11111)	1	C (1111)	100-00	6-refer	Constanting of the	10,171	1010101
Mallard	10000	'ainni	diam'r.	2	4		6	L+++-+	10	3
Blue-winged Teal	3	10	(4434)	1	13	6	3		13.11+1	8
Am. Widgeon	1 ****					*****	000.9	8.7.8.7.5.3	10	4
Shoveler	1	2	4.00.50	4-19-1	1000	122212	111110		12,217	211111
Redhead					14-33-34	6444434	645+774)	Personal A	8	0.000
Wood Duck	2	12	(495449	5	3	8	111111	2	10.077	4
Ring-necked Duck		75,622	1000		8		2nmps	2012	1000	
Greater Scaup		1	1000			E-++(1)	1	1.1.01	12	*****
Lesser Scaup	1	100000		2	9		6	3	1.000	1
Hooded Merganser					anna a' suara		122/14	FRANK	64 AU	1
Common Merganser			49111		1+1-1+1	(+++)=)	10010	1000	1	
Turkey Vulture	2	8	12	9	4	13	4	11		3
Black Vulture	7	7		1 Acres 1	1000	1000	5	2	2	0.000
Sharp-sh. Hawk				2		1	1	100000	$\bar{n} + \gamma (+1)$	100112
Cooper's Hawk	1000-		1	4	1	4	4	55.022	2	1
Red-tailed Hawk	1	1	2	10		6	3		p-147-14	111111
Red-sh. Hawk	1	C+0.000	2	6	1	2	644,440.	E	100 million (100 million)	1
Broad-winged Hawk	5	2	(1111)	12	4	10	NUMER OF		1	2
Osprey		(1	-	1	(*******	22444		
Sparrow Hawk		4	2	5	2	6	6		1	2
Ruffed Grouse	1012215	020003	A	5	angan (202251	Finder.	Actor	1	3
Bobwhite	20	24	29	36	59	75	25	15	18	26
Turkey		0472577		3	140.00	21910-	texture	+++++=+	110.010	
Sora		1	11111	0.000	121523	1.1.1.1	22577	11111	Sec. 7	2,2507
Am. Coot		3	0.0004	1	16		$\tilde{c} \to 0 \to 0$	+ 7 + + 1	6	0.000
Semipal. Plover				1.0.000	1			++++		
Killdeer	2	11	7	19	26	56	39	5	1	13
Am. Woodcock		1		-		5	00000	*****	(-) x (r)=*	
Com. Snipe		11		1	4	5	3			3
Spot. Sandpiper	2	4	ania	11	17	16	1	7		8
Sol. Sandpiper	1	6		2	7	16	4			11
Gr. Yellowlegs		3	A	Sec.	7	3	Rente	2	3	3
Lsr. Yellowlegs	5	7	50040	5	18	2	1	10	-	61

1962		Tł	IE MI	GRAN	Т				29	
Pect. Sandpiper	2	Salitin.	000100	Second	011110	2340.D	ana			
Least Sandpiper	100000	6	144440	1444441	100-10	1		699.(4)2		1
Semipal. Sandpiper								3	22222	nois
Western Sandpiper	Freedor III			Period.		11111	11-14	2		****
Herring Gull				0.000	2	1	1		6.04477	
Ring-billed Gull						15	ALC: N	1000	1	13
Common Tern		1				1	12.2	- and the		22422
Mourning Dove	13	31	49	64	184	313	95	40	107	5
Yelbld. Cuckoo	1	2	2	7	7	23	2	15	Acres (
Blbld. Cuckoo			20 1440	1	1	6	1	1		8
Barn Owl					1	++++++= 1.	600 FC			
Screech Owl		1		1	2	5	Energy Street		1	
Grt. Horned Owl				1	-	4	++1111	(((22)))		
Barred Owl	1	6		2		2				
Chuck-will's Widow	đ. Lich	5			19	10	4	1	1	
Whip-poor-will		7	3	6	4	7	12	2		
Com. Nighthawk	1	2	2	6	8	5	7	23	6	
지금 방법 것 하나 이 것 같은 것										
Chimney Swift	8	75	70	30	601	329	210	40	25	6
Ruby Th. Hummingbi		1	11	9	10	11	4	2	6	
Belted Kingfisher	5	1	1	4	8	9	5	5	6	
Yelsh. Flicker	11	1	23	20	77	114	54	19	59	4
Pileated Woodpecker	4	6	3	10	10	28	8	7	1	
Red-bel. Woodpecker	26	20	15	14	32	37	12	1		
Red-hd. Woodpecker		1	3	19	23	20	9	1	00000	3
Yelbel. Sapsucker	1		2	1	1	3	1111+1	$\hat{a}+a+b=0$	2	++++
Hairy Woodpecker	3	2	5	7	6	8	2	1 × 1 × 1 × 1	*****	-
Downy Woodpecker	9	14	16	20	36	34	19	8	17	
Red-cocka. W'pecker				9		******	i,i+i=1		******	
E. Kingbird	4	11	7	33	16	26	15	6	12	
Gr. Crest. Flycatcher	12	14	8	50	47	39	21	22	1	
E. Phoebe	3	6	3	29	11	49	34	20	8	2
Acadian Flycatcher	5	10		5	1	1	2	9	A	5595
Least Flycatcher				1					Roiri	1
Wood Pewee	16	12	4	34	12	9	8	19	1	
Olive-sd. Flycatcher					1	(1)	*,000 (A.)	1		
Horned Lark	1		2	6	4	11	6	1	3	
Tree Swallow		1		1	1	4	resident.			1-10
Bank Swallow			8			21	3	2	++++	1
Rough-w. Swallow	26	25		19	50	72	15	27		1
Barn Swallow	7	23	15	26	43	39	60	12	17	1
Cliff Swallow	-				257	6	4(2.477).		******	
Purple Martin	5		6	3	276	143	27	22	8	- 201
					488	626	160	72	209	14
Blue Jay Com Bayon	32	55	127	76						14
Com. Raven	10	95	0.2	45	122	284	40	60	69	8
Com. Crow	10	25	83	40	133					
Fish Crow	5	20	17	90	79	150	94	97	24	- 1
Carolina Chickadee	27	20	17	29	72	159	24	27	34	1
Fufted Titmouse	42	37	39	73	144	176	47	45	50	3
Whbr. Nuthatch		3	10	20	19	8	3	8	1	
Red-br. Nuthatch	1			8	4	11	2		14111	1
Brown Creeper	1			gaint.	20.00	1	14010	1.1.1.1.1.1.1	245366	-

30		T	HE M	IIGRA	NT				JUN	Ξ
House Wren	1-14-0						14	11	6	3
Winter Wren	101910 201220	1	4	100010	Lines ()					16
Bewick's Wren		1	9	7	3	1	3	3		2
Carolina Wren	44	11	12	20	106	117	23	26	26	36
Mockingbird	6	30	30	25	150	358	69	47	69	59
Catbird	9	19	16	28	26	56	32	21	20	21
Brown Thrasher	30	16	43	35	69	130	72	27	49	52
Robin	7	22	64	75	161	300	154	39	174	159
Wood Thrush	22	6	10	33	138	141	38	46	48	34
Swainson's Thrush	16	1		4	6	5	3	7		
Gray-cheeked Thrush		********		1		2	******	1	00000	1
Veery	1	3		3	3	4	******			6
Bluebird		34	10	39	62	36	55	2	3	6
Blgr. Gnatcatcher	33		8	60	58	81	45	22	1	18
Golden-cr. Kinglet	100									11
Ruby-cr. Kinglet		10000	Station of	4	4	9	1			1
Shrike	2	15	(*******	6	10	12			3	1
Water Pipit	222233	(4-11-5)	ä							1
Cedar Waxwing	10	2	2	40	81	100	3	40	31	
Starling	14	330	48	48	1.010	825	278	60	585	515
White-eyed Vireo	37	14	6	18	67	82	9	23	4	21
Yelth. Vireo	4	2		17	22	15	2	8		5
Solitary Vireo	an The		anna Talaist	1		1	-			23
Red-eyed Vireo	35	20	11	33	199	182	10	56	3	32
Philadelphia Vireo			55 4444	1						1
Warbling Vireo	1			2	2	5	1000000	1		5
Bl. & Wh. Warbler	3	7	1404444 140 140 141	24	36	56	9	15	13	28
Prothonotary Warbler		14	1000		8	9		6	10	20
Swainson's Warbler	1	4-2+++				0				
Worm-eating Warbler	6	2	setteri Silani	4	4	11	1	11	6	16
Golden-wing. Warbler	-	GLITH	10.04	6	-	6	10 11111	53 1000		ann
Blue-wing. Warbler	1	9			1	6			2000	1.000000
Lawrence's Warbler		1		(1996) (1997)		1000	verene Viligili		1 1000000 1 1000000	100000
Tennessee Warbler	35	8		8	2	9	1.1111	5		-
Orange-cr. Warbler			2000		1	1	10000			
Nashville Warbler	4	7	1173715 11110102			4	10	201110		7.84.000
Parula Warbler	16	4	2000	9		6	1.1.1.1	10		8
Yellow Warbler		11	8	18	41	80	37	31	7	89
Magnolia Warbler		1000	1	1	555 1210 - 1210	9	2	3	10	2
Cape May Warbler		3		20	70	5	4-4	2	414199	2
Blth. Blue Warbler	TATES			2		15	2.000000	1		12
Myrtle Warbler	3	39	ation in	34	226	166	27	3	8	11
Blth. Green Warbler	3			7	11	28	1	1		26
Cerulean Warbler	16	15	1401210		6	31		18		1.000
Blackb. Warbler	4		3	4	6	15	11111	5	A SAMA A MARANA	
Yellow-th. Warbler	1	4	6	11	4	9				
Chestnut-sd. Warbler	1	6		5	4	10				15
Bay-breasted Warbler		0.00		5		4		10	Freedow of	1
Blackpoll Warbler		10		13	80	22	10000	3		-
Pine Warbler			1	19	19	17		2		3
Prairie Warbler		6		76	51	60	1	13	10000	9

1962		T	HE N	IIGRA	NT				31	
² alm Warbler		35		16	103	10	1			
Ovenbird	6	5		47	23	34	6	20	251.526	3
No. Waterthrush		4	2000-00 2022-00	1	4	+-+++	11111 г.			
La. Waterthrush	5	8	******	11	13	6	4	5	2	
Ky. Warbler	24	16	1	11	20	27	1000	24	0.00	
Yellowthroat	9	10	3	35	42	74	28	26	1	4
Yelbr. Chat	18	19		45	52	41	13	37		2
Hooded Warbler	12	3	entre: Militik	11	16	21	10	23	8	4
Wilson's Warbler					10	1				
Canada Warbler			A resci-		3	2	1	5	$() \in \{\pm, \pm\}_{i=1}^{n}$	
Am. Redstart	40	8		9	6	11	4	14	11	1
House Sparrow	3	38	56	26	293	208	84	57	238	33
Bobolink	2	30 88	3		293 500	208		1.125010		2
E. Meadowlark	12	64	59	80	299	646	249	63	174	15
Redwing Blackbird	5	75		71				27	61	10
Orchard Oriole	8	15	50 6	9	185 31	481 50	86 38	16	2	1
Baltimore Oriole	18	15		10	13	3	30	9		
Rusty Blackbird	10	1	140-011					9	+1-1	
Com. Grackle	95	05		49	2	6	1.05	00	799	46
Brown-hd. Cowbird	25	85	55	43	183	601	165	66	723	40
Scarlet Tanager	60	63	116	27	109	108	34	77	1	
전쟁을 망가 있는 것이 되고, 그 같아? 이는 것을 가지? 이 것	9	7	4	51	42	24	6	15	0.021	9
Summer Tanager Cardinal	32	9	11	19	48	47	38		100	
	50	42	123	37	329	560	123	59	136	1
Rose-br. Grosbeak Blue Grosbeak	3	7	2	19	44	42	10	30	12	
	2	1			11	1	5	50		
Indigo Bunting	30	37	18	57	72	58	37	50	9	
Dickcissel	13	23	1.1.1.1.1.1	10		1	00	3.0000		1
Evening Grosbeak	Wohler	1	MINE	10	51	12	22	10.012	00	
Purple Finch		111110	F(r+1)/2		6	88	87	,(4) 10	29	14
Pine Siskin	10	100	50	05.4	15	0.0.0	5	01		
Am. Goldfinch	10	130	58	254	151	266	163	21	51	39
Red Crossbill	10	10		0.0	0.41	201	+ · · · · · · · · · · · · · · · · · · ·	00	50	
Rufous-sd. Towhee	16	19	67	36	241	394	45	28	58	9
Savannah Sparrow	1	4	12511	2	27	1	5		+1++++	
Grasshopper Sparrow		6		5	11	21	30	8	$\mathbf{i} (-) + \cdots$	
Vesper Sparrow			2	Citty 1	1.000	*****	*****	77558	0.0005	
Bachman's Sparrow	4-1411	4+1+44		1		+++++++	111116	++++++	+++++1	+-1=
Slate-col. Junco			22	(+)+++	11+1+1	++++(=)	+++(-)	0000	*****	- ++-
Carolina Junco	100000		10	1123	1000	1	00	NUMPS		4
Chipping Sparrow	1	10	19	54	45	92	29	11	13	
Field Sparrow	1	26	26	49	95	193	72	35	9	11
White-cr. Sparrow	2	9	2	6	1.00	27	21		20	1
White-th. Sparrow	120	14	48	27	123	259	36	5	55	5
Lincoln's Sparrow	(-1) = (-1) + (-1)	1	00000	01000	111111		10.00	0.000	(24.02)	1.11
Swamp Sparrow		6		3	6	2	5	11.11	100	_
Song Sparrow		2	3	8	51	236	50	45	54	9
TOTALS										
Individuals	1,266	2,113	1,639	2,698	8,851	$10,\!652$	3,446	1,961	3,446	4,60
Species	103	122	78	134	136	146	109	105	79	13

T. O. S. ANNUAL MEETING, 1962

The Tennessee Ornithological Society held its annual meeting on May 4-6, 1962, at Cumberland Mountain State Park near Crossville, Tenn. Attracted by Mr. Gene Ruhr's vivid account of the park, a few members arrived as early as Wednesday preceding the meeting. Charmed by the surroundings, they stayed, as did several later arrivals, until the following Tuesday.

Registration began Friday evening at the park dining room where Mr. and Mrs. Kirby Stringer were hosts for refreshments and Mr. Ruhr showed the excellent nature film, "The Great Adventure."

Saturday morning a motorcade travelled into the Catoosa Wildlife Management Area as far as Daddy's Creek. Mr. Albert F. Ganier, hike leader, was assisted by Area personnel. Of the stops made along the way, those at the nesting holes of the Red-cockaded Woodpecker were especially rewarding. Three pairs of these rare birds were seen.

At the Daddy's Creek crossing, hikers paused to photograph wild flowers, a huge, balanced rock, and the beautiful gorge. Some tarried at the creek for picnic lunches. Others drove to the Potter Farmhouse in the Catoosa Area and lunched under the apple trees,, to the music of Yellow Warblers.

The Board of Directors met in the Farmhouse at 2:00 o'clock while other members birded in the surrounding fields and orchard. Thirty two officers, directors and proxies were present.

The annual dinner, at the park dining room at 7:00 o'clock Saturday evening was followed by the regular business meeting and program. The President, Mr. Edward M. King, presided. One hundred and thirty three members and visitors attended. Mr. King presented to the membership several recommendations of the Board. All were approved.

The Constitution and By-Laws were amended to read thus:

ARTICLE II — MEMBERS

- Sec. 1 The membership shall consist of Active, Sustaining, Life, Honorary, Corresponding, and Student Members.
- Sec. 6 A Student Member shall be a student enrolled in any grade school, high school, college or university.

BY-LAWS - Dues

The annual dues to be paid to the Tennessee Ornithological Society by each Member shall be as follows: Active Member, \$2.50; Sustaining Member, \$5.00; Corresponding Member, \$2.00; Student Member, \$1.00. A member may become a Life Member by a single payment of \$50.00 to the Society's endowment fund. Honorary Members shall not be liable for dues. Libraries and similar subscribers shall pay \$2.00 per year. All members and subscribers shall receive **THE MIGRANT**. Local chapters may add to the dues of members whatever is necessary to cover the expenses of the local chapter. Local chapters are authorized to establish Family Memberships. A Family Membership shall pay annual dues to the Society of \$3.00 and shall receive one copy of each issue of **THE MIGRANT**.

The following officers were elected: President, Mr. Edward M. King, Memphis; Vice-President from East Tennessee, Mr. Kenneth Dubke, Elizabethton; from Middle Tennessee, Mrs. James Haile, Cookeville; from West Tennessee, Mrs. Rose Wooldridge, Memphis; Secretary, Mrs. J. H. McWhorter, Memphis; Treasurer, Mr. Henry E. Parmer, Nashville; Curator, Mr. Albert F. Ganier, Nashville; Editor, Dr. Lee R. Herndon, Elizabethton; Director-at-Large, from East Tennessee, Mr. John Elson, Knoxville; from Middle Tennessee, Dr. George Mayfield, Jr., Columbia; from West Tennessee, Mr. L. D. Thompson, Paris.

Mr. Thomas W. Finucane, coordinator for the Hawk Count, reported on the special work being done in that field. Mr. Ruhr accepted editorship of the **Newsletter** for the coming year.

Speakers for the evening, members of the Society, were introduced by Mr. Ganier. They were: Dr. Lee R. Herndon, "What Can Be Done to Improve **The Migrant?"**; Dr. James T. Tanner, "After You Have Identified All of the Birds, What Do You Do Next?"; Miss Mary Davant, "Worthwhileness of Being a Member of T.O.S."

Sunday morning, small, informal groups formed to enjoy the restful park area and its wildlife. Others drove to Harrison Lake where many birds had been observed on Friday. After lunch at the dining room, members met on the patio to report birds found during the days of the meeting. Mr. Parmer was compiler. Species listed totalled 134.

The following resolution was adopted by the Society:

"Whereas, the Tennessee Ornithological Society, assembled in its annual meeting, May 4, 5 and 6, 1962, at Cumberland Mountain State Park, Crossville, Tenn., does consider this one of its most successful meetings, and

Whereas, the planning and leadership of those responsible for this meeting has contributed significantly to the pleasure and success of this conclave, now therefore be it

Resolved, that the Society express its gratitude to the entire Nashville Chapter, and especially to its President, Mr. Henry Parmer, to Mr. Gene Ruhr, Mr. Albert Ganier, Mr. and Mrs. Kirby Stringer, Mrs. William Bell, and members of her Committee on Decorations, Mrs. William Puryear and Mrs. George Woodring, for the fine work all these folks have accomplished in aranging the details of this meeting; and to members of the official staff of Cumberland Mountain State Park and those connected with the dining hall, for their fine co-operation and assistance in taking care of the members of the Society; and to those members of the Fish and Game Commission of State of Tennessee, headed by Mr. Gene Ruhr, and including Mr. Carl Brown, Mr. Ralph Plumb and Mr. Ennis Williams, for having contributed so much to the success of our Saturday trip into the Catoosa Wildlife Area; and to Mr. Gene Ruhr and Mr. Paul Adams for the generous showing of their films to members of the Society on Friday evening.

Be it further resolved, that the Society express its sincere thanks to Mr. Gene Ruhr for his continued efforts and fine work in producing the **Newsletter** and getting it off promptly each quarter to Dr. Herndon, our Editor, for mailing; and to all those concerned with publishing and mailing **The Migrant**, mentioning the very special efforts of Dr. Lee Herndon, the Editor, and to Mr. Henry Parmer, whose duty it is to address all the labels and stick them, and provide the envelopes to Dr. Herndon."

The 1963 annual meeting will be held in East Tennessee with the Chattanooga Chapter as hosts.

MRS. J. H. McWHORTER, Secretary, 817 Goodwyn, Memphis 11.

ROUND TABLE NOTES

TWO PURPLE GALLINULES IN KNOX COUNTY. — During the last two weeks of April a Purple Gallinule appeared almost daily for an hour or two in mid-morning in the back yard at the home of Mr. and Mrs. G. H. Baker, 8 Century Court, Knoxville. I watched the bird at close range from Mrs. Baker's dining room window on May 2. It picked up insects in the freshly mowed grass and Mrs. Baker said it often walked on top of some ivy looking for slugs. It was last seen May 5. The yard is on a hill near Bearden High School and a considerable distance from water.

On May 1, two boys were waiting for a school bus on Cogdill Road in Concord and noticed an odd bird feeding in grass nearby. They chased and caught it, apparently injuring one of its legs in the process. The bird, a second Purple Gallinule, was placed in a cage at the home of one of the boys parents, Mr. and Mrs. Paul Cofer, where I saw it a few days later, still unable to use one leg. The place this gallinule had been found was a mile or so from Andrew Jackson Lake and possibly ten miles from where the other gallinule was making its appearances.

My files of THE MIGRANT extend only back through 1941 and mention only one Purple Gallinule in East Tennessee and that was in October, 1958, also in Knox County.

J. B. OWEN, 2722 Fairview St., Knoxville, Tenn.

GOLDEN-WINGED WARBLER BUILDING NEST AT CUMBERLAND MT. STATE PARK. — On May 6, 1962, during a before breakfast bird walk, Gene West and the writer discovered the nearly complete nest of a Goldenwinged Warbler in a scrubby, briary area bordering one of the park lodges. The actions of a female carrying one tiny piece of nest material made it very obvious that I was standing too close to her destination. When I backed away, she went to it readily.

Afraid she might abandon it and anxious to return for moviemaking, we did not inspect it closely. However, it was empty of eggs but appeared about ready for them. The nest was constructed mostly of dead grass, the whole structure being set into a clump of the same. It was about 4" deep and the top was maybe a foot above the ground.

At this early morning hour she made frequent trips with just one slim piece, sometimes spending an estimated 30 seconds inside. On a return visit near noon, neither of the pair were seen or heard, though the male had been much in evidence earlier.

The curiosity of a cat that had to be run off does not augur well for the success of this nesting.

Mr. Albert Ganier is the authority for the statement that this is the first nest record on the Cumberland Plateau. I do not know the breeding status of the species on a statewide basis.

MRS. E. M. WEST, 5511 Dayton Blvd., Chattanooga 5.

EVENING GROSBEAK VISITORS. — The most interesting wild bird visitors to our feeding shelves the past winter and spring were a flock of Evening Grosbeaks. A large number of them headquartered at our home from the last of January until May 12. We have a large hackberry tree well fruited with berries and five large maples in their seed year. In addition, Mrs. McCollum and I provided sunflower seed and they accounted for the better part of a hundred pound bag.

CLYDE E. McCOLLUM, Pikeville, Tenn.

LATE EVENING GROSBEAKS IN GATLINBURG. — The last day for Evening Grosbeaks in Gatlinburg and vicinity was 14 May. But, to our surprise, a lone male turned up at a feeding station near Mt. View Hotel on 1 June and was there through 5 June.

ARTHUR STUPKA, Gatlinburg, Tenn.

NOTE. — Evening Grosbeaks, having found our state and learning to like it, are now returning almost yearly. They have learned to use new foods and are no longer dependent on seed from cones of pine and spruce. Mrs. C. F. DeLap of Springfield had from one to three at or near her home, "Bird Song Garden", from 10 to 27 April. She saw 14 feeding on buds of tulip poplar, 22 April, at Ridgetop Lake. At Columbia, G. R. Mayfield, Jr., reports that nine were seen there the last week in April and two had remained to 2 May. One of the small flocks recorded at our annual meeting at Cumberland State Park, 3-5 May, was observed on the ground feeding upon the brown blossoms that had fallen from oak trees.

ALBERT F. GANIER, 2112 Woodlawn Drive, Nashville.

A WHIP-POOR-WILL FORAY. — On the late afternoon of May 18, Mr. and Mrs. J. C. Browning, Ken Dubke, Mr. and Mrs. Lee R. Herndon, Mr. and Mrs. Basil King and Roby D. May, Jr., took a picnic supper and headed across the Holston Mountain for the south shore of South Holston Lake. We arrived just in time to complete our supper by 8:15 p. m. when the first Whip-poor-will song was heard. Within a few minutes other Whip-poor-wills joined in the chorus and two birds came out of the woods and lit on the road near each other and us. By careful and slow approach some of our number were able to approach to within three feet of the birds and by the aid of a flashlight were able to observe them at close range and to good advantage before they took wing.

Although the sky was clear and the temperature pleasant, the moon, which was practically full, had not appeared over the mountain, the night was not particularly dark.

On our return trip we decided to stop, listen and count singing Whippoor-wills every half mile. The first few stops we all stopped together. Since the road was very dusty and we were in two cars, the proposal was made that we play leapfrog the rest of the way, that is, one car would stop on the half-mile while the other would stop on the mile and at the conclusion we would get together and total our counts over the 16 mile route. The same route was covered as that reported in THE MIGRANT: **30**, 31, 1959. A total of 73 singing Whip-poor-wills was logged and at one stop one of the groups heard a Barred Owl singing in the direction of the top of the Mountain. This number compares with 56 reported for the 1959 foray, which was almost a month earlier than this one.

For most of the group this was a new and rewarding experience and we recommend that other groups plan similar excursions in future years.

LEE R. HERNDON.

CHUCK-WILL'S-WIDOW NEAR WATAUGA LAKE. — About midafternoon of Saturday, 12 May Clarence Raulston and Robert Madgitt, who were working on a houseboat on Watauga Lake at the Lake Shores Boat Dock, reported hearing a Whip-poor-will which appeared to be singing off key. It was heard again the following week end in the same place. On Tuesday evening, 29 May, I accompanied Raulston and Oran Diddle to the area for the purpose of banding some nestling Phoebes. At dusk, about 8:15 p. m., the bird which had been singing in "off key" began to sing. I recognized the song immediately as that of the Chuck-will's-widow (*Antrostomus carolinensis*). It continued to sing at irregular intervals for about half an hour after which it did not sing again during the remaining hour we were in the area.

The bird was on the point between the Lake Shores Boat Dock and the Y's Men's Picnic area and between the highway and Watauga Lake. The water level in Watauga Lake at the time was about the 1947' level which would place the bird in the vicinity of the 2000' level. This would be about 400' higher elevation than the nest of this species found near Bluff City near the South Holston River in 1960 (THE MIGRANT, **31**: 57). This is the third record of this species' occurrence in Carter County. The other two records are in THE MIGRANT: **27**, 53 and 65, 1956 and **28**, 46, 1957.

LEE R. HERNDON, Elizabethton, Tenn.

WESTERN GREBE, PATRICK HENRY LAKE, KINGSPORT.—On Friday, November 17, 1961, behind Patrick Henry dam on the Holston River parallel to the road leading to Hemlock Community, I saw three Western Grebes (*Aechmophorus occidentalis*). It had been a week of warm weather following the first hard freeze the previous week. The temperature had gone as high as 75°F in the afternoon and no lower than 60°F at night. It was a clear morning. I first noticed the birds because of the light reflected from their long white throats. I was perhaps as close as 50 yards when I set up my 20X telescope and watched them for ten or fifteen minutes. They were feeding and paddling along in a leisurely way. The contrast of their black backs and flat caps with their long glistening white throats was very marked. In the telescope their backs were speckled as illustrated in the Audubon Water Bird Guide.

On the following Wednesday, November 22, within about twenty or thirty minutes, I saw three species of grebe, Pied-bills at the State Park, three Western again at Hemlock, and nine Horned at Boone. It was a very interesting lesson in contrasting and comparative size and markings.

ANN SWITZER, 1620 Fairidge Place.

ED. NOTE: There is no other state record for this species, therefore should be placed on the hypothetical list until further substantiated.

BOOK REVIEWS

HANDBOOK OF NORTH AMERICAN BIRDS. Volume 1, Loons through Flamingos. Edited by Ralph S. Palmer. Sponsored by American Ornithologists' Union and the New York Museum and Science Service. Yale University Press, New Haven, Conn. Publication Date — May 23, 1962. Pps. 567. \$15.00.

This volume assembles in summary form accounts of all species of birds found in North America north of Mexico, including Greenland and Bermuda. Recognized specialists have provided the material from which these summaries are derived and the sources are listed under the section "Literature Cited" just preceding the "Index". A simplified and more universal color standard has been included, which will aid materially in visualizing the various plumages and molts as well as illustrations of taking characteristic measurements and sketches showing detailed anatomical features of the bird. Detailed maps showing the breeding and wintering ranges of each species, illustrations of characteristic behavior and poses, comparisons with similar species and six color plates add greatly to the appearance of the book.

Each species is described in detail in nontechnical terms with key words in **bold face type** to facilitate finding a specific item in a paragraph. Physical measurements are presented in millimeters and weights in grams. Geographical variations and subspecies are given where they are known to exist. Excellent details are presented concerning field identification, voice, habitat, migration, banding status, reproduction, displays, copulation, nest, clutch size, distraction displays, hatching success, flightless period, habits and food.

For the serious bird student, amateur or professional — "This monumental work, of which this is the first volume, summarizes the existing knowledge and is certain to be the standard reference work for years to come."

LEE R. HERNDON.

ALABAMA BIRDS. By Thomas A. Imhof. Published for the State of Alabama, Department of Conservation, Game and Fish Division, 1962, by University of Alabama Press. 591 pps. \$7.50.

A frontispiece of a Wild Turkey gobbler in dogwood blossom time painted by Walter A. Weber, of the National Geographic Society is a fine introduction to the book. The first 43 pages are devoted to Bird Study in its varied phases, particularly as it applies to Alabama. Included are equipment for bird study, attracting the birds, literature, topography, laws relating to birds, migrations and banding.

Pages 44 through 58 entitled "Species Accounts" deals with the known facts concerning each of the 352 species known to occur in the state. A general outline of what is included and the order in which it is presented is given under each order. A brief description of each species is given with distinctive features of both sexes, where they differ, set in italics to facilitate identification. Where and when to find the birds in Alabama, with maps for 62 species indicate more specifically where they have been found. Their occurrence is indicated, whether accidental, casual, rare, uncommon, fairly common, common or abundant. Nesting information is given for the 159 species known to nest in the state. Information on food and feeding habits has been drawn from Alabama as much as possible but not limited to this area.

Abundance data, time of breeding and banding data are included as well as a state map indicating the locations mentioned frequently in the text. The main portion of the book is devoted to details of the 352 species in the order listed. Many photographs, maps and the excellent watercolor paintings of land birds by Richard A. Parks and the oil paintings of water birds by David C. Hulse of 329 species are appropriately dispersed throughout the text.

A table of contents, glossary, bibliography, species index and crossreferences in the text to the plates and maps make the book very useful.

Due to the proximity of Alabama to Tennessee and the similarity of birds of the two states the book would be a valuable addition to the reference library of all T.O.S. Members.

LEE R. HERNDON.

THE MIGRANT

A Quarterly Journal Devoted to the Study of Tennessee Birds Publ	ished by
The Tennessee Ornithological Society	
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EDITORIAL

Almost daily we see and hear evidence of the destruction of bird habitats caused by the expansion of our cities and towns, industrial developments and road building. Wood lots are being leveled, marsh and wet lands being drained to make farm land to produce more crops to add to the surplus upon which we are already paying enormous sums for storage, or in some cases to be piled up and permitted to decay.

In our immediate neighborhood, and I am sure it is not unique, in the past 20 years we have seen many of our favorite birding areas gradually whittled down till they are no longer suitable habitats for birds. The most recent intrusion of industry on favorable bird habitat has been at the County Farm where a formerly marshy area and marginal land has been ditched, partially filled in and bulldozed for roadways, a research center and manufacturing plant. A few years ago the land could have been purchased for a nominal sum. Now the land is selling for \$1,000 per acre. The area under discussion includes the major portion of the area in which we found the first Traill's Flycatcher breeding area in Tennessee. The birds have returned to the area but there is so much activity in the immediate vicinity that their numbers are greatly reduced and the indications are that they will not nest in the area this year. The closest other area in which this species may breed is 30 miles away in Shady Valley and no nest has been found there, although the birds were present during the breeding season the two previous years and are present again this year. Even now plans are afoot to drain and improve this area for farming so that it will no longer be a suitable habitat for these or other marsh breeding birds.

The former area, the County Farm, was also the area in which we have mist netted and banded more than 6,000 birds of almost 100 species during the past three fall migration seasons. The suitable netting area has already been reduced to less than half its former area and the adjacent farm land taken out of cultivation so that it will be less attractive as a feeding and resting place for birds on their fall migration. A similar area cannot be found for miles around. It is highly probable that the remainder of the area will soon yield to a similar fate as residential developments spring up in the vicinity.

It is high time that our organization take some positive action by acquiring some of these vanishing habitats and see that they are preserved for posterity. Some other ornithological groups in other states are acquiring similar small plots of land and developing them as permanent sanctuaries for bird life. Please think this over and let us have some positive action before it is too late. Headquarters for

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