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A QUARTERLY JOURNAL DEVOTED TO TENNESSEE BIRDS

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THE MIGRANT

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No. 4

A SUCCESSFUL NESTING OF THE PEREGRINE FALCON WITH THREE ADULTS PRESENT

By WALTER R. SPOFFORD

In an account (Spofford, 1945) of the occurrence of a pair of treenesting Peregrine Falcons (Falco peregrinus) near the Mississippi River in Western Tennessee in 1945, an unusual circumstance was brought to light in that three birds were present, an adult male, an adult female, and an immature year-old female. The male was the same as of previous years, but the original female was missing and her place was occupied by two new birds, an adult rather small and with pale pigmentation and an immature larger and richly colored. The male paid no attention to the small old female, who tried to receive his food pass, while the young female did not appear to respond to the display of the male. Neither female seemed to resent the presence of the other, in contrast to somewhat similar situations observed at other eyries. A tentative conclusion was reached at the time, that, an accident having befallen the original female, the display of the male brought in two females, one immature and too young apparently to respond to the male (in the present case), and the other apparently failing to arouse the interest of the male. Perhaps the latter female, very pale in color, was an old bird,-if so, the situation may recall the words of a then current song: "They are either too young or too old!". In any event, no nesting took place that year.

In 1946 a brief visit to the eyrie on April 10 showed no sign of occupancy (the tree was not climbed), but a bird was heard calling not far away, apparently joining with crows and Red-shoulders in heckling an owl. (Since the original female laid eggs in February and had large young in April, it seemed as if no nesting occurred that year, but since, as will be shown shortly, the new bird lays much later, it is possible that she was sitting when we visited the nest area in 1946).

The next visit to the eyrie was on February 22, 1947, with Mr. Thomas Butler of Paris, Tenn. We arrived close to the eyrie tree at 5:30 A. M., just as the sky became gray in the east. At six o'clock a number of small birds were calling or in song and Barred Owls were noisy. A moment later a short series of the 'short-wail' call from near the eyrie showed that one bird at least was on location, and in the next five minutes the calls were repeated several times. Then a Peregrine flew off southwest and disappeared until about 6:40. Meanwhile the woods was noisy with Redshoulders and Barred Owls, and once a noise like an approaching express train preceded an immense flock of blackbirds and grackles flying

low through the swamp forest and out toward the open fields nearer the river.

A sharp "Kleep! Kleep! Kleechip!" announced a falcon back, and at once the male came in fast in a bank around the nest tree. Then a female appeared towing a grackle-sized bird (the male already having made the food pass) and lighted in a cypress top where she quietly went about eating her breakfast. The male came back for a few moments, then flew off again. Fifteen minutes later the female, her meal completed, flew close to the eyrie (a hollow limb about two feet in diameter broken off close to the trunk, some 85 feet up in a great cypress), and then somewhat later flew to a perch farther away. She returned at 7:10 to chase off two crows with two brief and shallow stoops.

We left the area for some hours, but at 4:00 p.m. we were back. At 4:15, after a period of quiet, the male returned swiftly and in a sizzling bank shot up into the nest closely followed by the rather small female we had seen in the morning, which perched now a few yards from the nest. Suddenly a second and larger female appeared in the top of a neighboring cypress. She left at once and the male immediately came out of the nest and went after her, leaving the small female to herself at the eyrie, where she at first gave the "Klee-chip!" call vociferously, and then gradually became quiet.

This situation was very similar to the observation of April, 1945. In March, 1947, Mr. Butler made additional notes somewhat similar to the above, but it was not until March 29 that we visited the site together again. At 8:30 A.M., a fairly large and richly marked female flew from near the eyrie into a perch not far away. One tail feather (middle or 'deck') and her wings were noticeably blunted as is the case with a bird that has been incubating, especially in narrow quarters. Seeing us, she scolded us with evident concern, "Kack!-Kack!-Kack!" A little later the male came in and perched for a short time, then seeing me, flew off, At 9:45 a Red-shoulder came along through the trees (they were apparently nesting close by) and flew directly at the large falcon causing her to lose her balance; both birds flew away yelling. At 9:50 I approached the nest tree whence at once a small female flew out of the nest entrance and away. The male now circled overhead. Then the big dark female reappeared, flew in a half circle, and in a shallow stoop on nearly closed wings, rocking a bit as she 'slalomed' between the limbs, she dove into the nest cavity. There she turned around once or twice in the 'doorway' and then went in out of sight. For the next half hour the male circled quietly overhead.

At 10:45 I started up the tree, and only when sixty feet up did the male suddenly see me and begin an angry outcry. When just below the nest opening I put my hand up, at which there was a sharp hiss; then the falcon walked out onto the big limb forming a doorstep to the eyrie only a foot above my face. Without looking down to see me she sprang out, then circled and in a moment was in full battle-cry coming at me

in horizontal stoops.

The nest was a flattened area in a hollow limb base, open on the east. There was only a trace of the original 'scrape', but there were four eggs, two on each side of a small interval, where the falcon had placed her feet while incubating. Three eggs were mainly reddish with small irregular marks of darker red, while the fourth egg had a grape-purplish hue over the basic red. In all probability these were laid by a single bird, as it is a common occurrence that one egg of the four may be somewhat off color.

It is my opinion that these were laid by the larger, darker falcon. A reasonable interpretation of the observations recorded above is that in the early morning the male came in with food for the incubating female, that she came off to feed and at this time the smaller female went in to incubate. The large bird meanwhile stayed close by until the small female came off, and then she went back onto her eggs until my hand coming up in front of her face caused her to leave.

Three birds were still present during April 17-19, according to observations made by Mr. Butler, and actions indicated that the eggs had now hatched, but the tree was not climbed. More than a month later, however, on May 27, Mr. Butler did climb and found that the nest was now vacant. The young had left only recently, and one bird was heard calling nearby.

The successful nesting of the Peregrine with two females not only tolerating each other, but actually cooperating in incubation is an unusual situation at the least, and it would be interesting to know more of their relationships during the raising of young and during the non-breeding part of the year. It is hoped that, if this triangle still occurs next spring, further observations can be made.

VANDERBILT UNIVERSITY, NASHVILLE, TENNESSEE. Ref. cited: Spofford, Walter R. 1945. MIGRANT, 16:56-58.

MOUNTAIN VIREO NESTS IN THE GREAT SMOKY MOUNTAINS

By HARVEY B. LOVELL

While camping at the Chimney Camp Site in the Great Smoky Mountains National Park in July, 1947, I made some observations on the nest of a Mountain Vireo (Vireo solitarius alticola).

Early on the morning of July 4, I heard the call of this vireo and quickly found the bird in my field glass in a nearby tree. It flew from branch to branch hunting insects and then went directly to a nest and began to feed young. The nest was situated far out on a slender limb ten feet from the trunk and only three feet from the end of the branch. The tree was a yellow birch (Betula lutea) only six inches in diameter.

The site chosen was close to the Little Pigeon River but over a rocky branch, fifteen feet above the boulders. The nesting site was surrounded and well shaded by several very large hemlocks, a giant sycamore, and a small oak. By climbing the tree I was able to look down upon the nest and observe the parents feeding the young. There were either three or four quite young nestlings, their nearly naked heads barely coming to the rim of the nest when gaping for food.

On several occasions while one parent was feeding, the other flew to the nest and also fed the young birds. One bird was observed to carry away a large sack of feces to a considerable distance. The young were fed very rapidly, the parents rarely remaining at the nest longer than five seconds.

As I had to leave the area on July 5, I asked Arthur Stupka, the Park Naturalist, to send me the empty nest after the young left. A month later I received from him a beautifully woven nest (hereafter called nest 2), but it clearly was a different nest since it was bound more extensively to the limb and was less ragged on the bottom than the one I had observed. It also contained, according to Mr. Stupka, four addled eggs. I then sent more accurate directions as to the location of the original nest and received on September 20 a second nest with this comment, "I am certain that this is the one in question; it was about 200 feet from the previous nest, and meets your description. Both nests were about 15 feet from the ground."

A comparison of the two nests may be of interest. Both were suspended in a fork near the end of a branch of a yellow birch. The diameters of the branches forming the forks were 7 and 41/2 mm. for nest 1, and 7 and 5 mm. for nest 2, certainly too slender to support the weight of man or any other large predatory animal. Both nests were woven out of shreds of bark and lined with fine grasses. The lining of nest 1 also contained about thirty reddish-brown sporophytes plucked from some moss, many of which still had the capsule attached. The outside of each nest was covered with thin papery materials, which proved to be scraps of paper evidently picked up around the camp site, and strips of yellow birch bark. The nests were also covered with the webbing of spiders and a half dozen old spider cocoons were included on nest 1. The main body of nest 1 (which was taken apart for examination) consisted of strips of bark running in all directions, giving the appearance of an interlacing network, and all stuck together with spider webs. Both nests were firmly bound to the two sides of the fork by more arthropod silk. Nest 1, which was 21 cm. in circumference, was bound to the branches by only one third of its rim, 4 cm. on one branch and 3 cm. on the other. Around the margins had been placed a considerable amount of green mosses, and some had been woven into the sides of both nests. I have not found moss mentioned in the descriptions of previous nests, Nest 1 had five pieces of pale green lichen stuck to the sides and some additional pieces were found buried beneath the layers of paper and bark. Burleigh (1925) observed lichens on Solitary Vireos' nests in northern Georgia and has the following comment: "This habit of ornamenting the nest with green lichens, in the same manner as a Wood Pewee or a Blue-gray Gnatcatcher conceals its nest, is characteristic of this bird alone of all the eastern and possibly western Vireos, and is the more interesting in that this is only a subspecies occurring over a limited area." The combination of white paper, yellowish bark, and green lichens and mosses was not particularly concealing to the human eye at least. In fact the light color of the nest was quite conspicuous against the slender dark-hued branches on the birch.

Burleigh (1925) appears to have been the first to point out that the Mountain Vireo is two-brooded in northern Georgia. He states that the first brood occurs in April and early May and the second in June. He describes three June nests and one in July, the latter with newly hatched young on the fifteenth of that month. The present nest therefore falls late in the second nesting period and is one of the few July nests to be recorded for this subspecies.

These two nests were at a relatively low altitude for mountain species. Mr. Stupka stated that he considered the Chimney Camp Site (altitude 2750 feet) to be the low limit for the occurrence of most of the mountain species. However, Odum and Burleigh (1946) have recently pointed out that the Mountain Vireo is extending its range from the mountains into the Piedmont, where it selects "fairly mature but hot and dry pine woods for nesting, a rather striking contrast to the cool, usually deciduous, ravines occupied in the mountains." Powers (1936) has described a nest in a holly tree on the Appalachian Club grounds. His two photographs published in the MIGRANT show a bulky nest with an irregular ragged bottom, suspended in the fork of a holly tree.

The heighth from the ground of fifteen feet for these two nests is considerably higher than the average of eight feet reported by Ganier and Clebsch (1946) from the Unicoi Mountains in extreme southeastern Tennessee. Powers' nest was eight to ten feet up, and Ganier (1936) reported a nest on Roan Mountain nine feet up. However, Burleigh (1925) for Georgia listed nests at twelve, eighteen, and twenty-five feet.

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THE 1947 CHRISTMAS SEASON BIRD COUNT

By T. O. S. MEMBERS

The annual bird counts were held at nine different places in Tennessee, on five different dates from December 19 to 28, 1947. At five of the localities: Memphis, Nashville, Great Smoky Mountains, Greeneville, and Elizabethton, the counts were made by an organized effort of local chapters of the T. O. S.; at each of the other four localities the counts were made by from one to four individuals. Ninety-seven species were recorded in all, which is almost exactly the average number recorded for the preceding six years. In the descriptions and table that follow the localities are listed from west to east, Memphis to Elizabethton. Under the heading "Information on the Counts" are described the areas, type of habitats covered, weather conditions, number of observers and parties, with miles covered and the names of the observers. The species and numbers of individuals observed at each locality are listed in the table. For additional information or comments on the records marked with an asterisk (*), see paragraph containing information on the particular locality.

The count from Reelfoot Lake arrived too late to be printed in the table, so it is included below in paragraph form.

TABLE OF 1947 CHRISTMAS BIRD COUNTS

	Memphis	Henderson	Clarksville	Nashville	Great Smoky Moun- tains National Park	Greeneville	Johnson City	Elizabethton
Pied-billed Grebe	3	1		1				
Double-crested Cormorant	9							
Great Blue Heron	2		1	1	1		1	
Mallard	1	2		45				
Black Duck		•	3	13				
Ring-necked Duck	1	2		5				
Lesser Scaup	14							1
Hooded Merganser								1
Turkey Vulture	6	38		1	15	19	7	
Black Vulture	28	6[2	*31		22		
Sharp-shinned Hawk	3						1	
Cooper's Hawk	4	1)		4	2		1	2
Red-tailed Hawk	36	6	1	7	4			1
Red-shouldered Hawk	15	6	2	2	***********	2		*****
Marsh Hawk	10					1		
Sparrow Hawk	47			22	2	5	5	3
Ruffed Grouse					4			**********
Bob-white	104		5	24		2		
					- 6			***************************************
Coot		171		2			***************************************	
Killdeer	91	17	1	81	22			4

1947 CHRISTMAS BIRD COUNT—Continued

-	1		-				- 1	
e 0	Memphis	Henderson	Clarksville	Nashville	Great Smoky Mountains National Park	Greeneville	Johnson City	Elizabethton
Wilson's Snipe	1			1	2			
Herring Gull	î/			i		. 207,000,000,000		
Ring-billed Gull	33							
Mourning Dove	63	4	18	235	85	31	11	20
Screech Owl	2		-	3	1			
Great Horned Owl	11	***************************************		2				
Barred Owl				1				
Belted Kingfisher	7		2000000	5	4	6	1	4
Flicker	141	12	4	46	- 4	7	6	5
Pileated Woodpecker	1	4	2	15	5	í	-	1
Red-bellied Woodpecker	62	9	4	45	3	3	*********	î
Red-headed Woodpecker	23	6	**	2	***************************************	6	***************************************	.
	19	5	1	18	3	٥	1	4
Yellow-bellied Sapsucker		1	2	A STATE OF	5	1		4
Hairy Woodpecker	13	8		12	-	11		24
Downy Woodpecker	53	8	8	61	15		**********	24
Phoebe	1		1	2	15	1	1	
Horned Lark	30		1	7	13	37	1	26
Blue Jay	390	18	6	54	10	30	18	29
Raven					7			
Common Crow	305	72	39	*908	330	10,650	42	152
Black-capped Chickadee								
Carolina Chickadee	195	18	5	145	*345	106	14	86
Tufted Titmouse	90	18	14	80	29	34	31	37
White-breasted Nuthatch	4	1)		2	3	2	6	•
Red-breasted Nuthatch	********				31			
Brown Creeper	22	1		11	14	1		2
Winter Wren	43	1	11	1	91	2		3
Bewick's Wren				2	1	1		
Carolina Wren	153	10	11	74	20	31	12	-52
Mockingbird	117	5	1	92	9	29		14
Brown Thrasher	19	7					*32.00 A 22.00	
Robin	180	7	28	125,940	160	5		1
Hermit Thrush	35	9	20	8	9			_ 3
Bluebird	103	25	15		1.00	37	14	
Golden-crowned Kinglet	132	15	4	7	79			17
그렇게 하게 되었다. 그리아 이 아이는 사람들이 아이를 가게 하는 것이 없는 것이 없다.	41	13	*	í	4	2		5
Ruby-crowned Kinglet								٥
American Pipit	3				75			
Cedar Waxwing	291			18		23		24
Migrant Shrike	41	2	FA	4	1		1 1	1000000
Starling	6,379	30	53	501,940	85	257	100	197
Blue-headed Vireo	*1							T-14 M 14
Myrtle Warbler	393	19	4	139	7	10		62
Palm Warbler				2	**********	2		2
Yellow-throat					******	**********	+-+11(104)	*1
English Sparrow	520	49	16	100	51	83	25	139
Meadowlark	329	42	1	107	55	65	2000	2

1947 CHRISTMAS BIRD COUNT—Continued

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	Memphis	Henderson	Clarksville	Nashville	Great Smoky Mountains National Park	Greeneville	Johnson City	Elizabethton
Red-winged Blackbird	554	7		4	9		4	5
Rusty Blackbird	13		75	50	[*20		
Bronzed Grackle	6,508			*1,010		6	Jan 24	8
Cowbird	51]	850	15		44.0	4
Cardinal	432	27	33	272	72	98	18	86
Purple Finch	34			3	7			- 6
Pine Siskin					2			3
Goldfinch	92	23	16	143	155	19		58
Red Crossbill		[[4			
Red-eyed Towhee	85	9	12	101	45	8		12
Savannah Sparrow	125		1		18	******	25	
Leconte's Sparrow	5	[2					
Junco	583	62	46	213	320	60	5	69
Tree Sparrow			3					
Chipping Sparrow	5	···	*****				***********	
Field Sparrow	218	28	4	119	440	112	27	62
White-crowned Sparrow	9]	2		21]	89	30	26
White-throated Sparrow	1,271	28	39	205	270	68	4	86
Fox Sparrow	70	3	5	7	1			9
Swamp Sparrow	43	37	4	49	7			
Song Sparrow	344	26	24	125	190	75	12	89
Lapland Longspur	10							+
Number of Species	74	45	43	66	58	46	31	48
No. of Individuals	*29,388	717	518	633,585	3,160	11,764	432	1,499

INFORMATION ON THE COUNTS

MEMPHIS, Tenn. (1946 area plus Mound City Chute, slightly more intensive coverage south; wooded bottomlands 45%, deciduous woodlots including city parks 20%, airports, pasture, and old cottonfields 15%, suburban roadsides 20%) Dec. 21; 6:35 a.m. to 4:45 p.m. Fair; muddy underfoot; calm to slight N wind in p.m.; temp. 330 to 500 to 370. Thirtythree observers in 7 parties, and 4 individuals; the 4 main parties breaking up variously at localities worked. Total party hours, 113; total party miles, 247 (92 on foot, 155 by auto.) Mr. and Mrs. Ben B. Coffey, Jr., (compiler), Mr. and Mrs. Howard Barbig, Mrs. Floy Barefield, Edward Balton, Fred T. Carney, Mrs. Irene R. Daniel, Mary Davant, Harry Estes, Newton Hanson, Oliver F. Irwin, Victor Julia, Mr. and Mrs. Luther F. Keeton, Lawrence C. Kent, Paul Kisling, Chas. E. McPherson, Jr., Mrs. J. H. McWhorter, Jim McWhorter, Patricia Moore, Tommy Odum, Eugene Parish, Ruel Patterson, Mr. and Mrs. Albert L. Powell, Ella Ragland, Alice Smith, Demett Smith, Jr., Mrs. M. L. Torti, Maurice Torti, Brother I. Vincent, and Rose Woolridge (Memphis chapter, T. O. S.).

The Blue-headed Vireo was seen by Ben Coffey, Demett Smith, and others, and was the second winter record for this bird. In addition to the species listed, 8670 unidentified blackbirds were seen. Also an estimated 300 Canada Geese were reported seen ten miles north of the area on the Mississippi River.

REELFOOT LAKE, Tenn. (From Tiptonville around lake via Spillway and Samburg to Walnut Log, and also the timbered bottomlands on west side of lake; deciduous woodland 55%, open lake 20%, roadside 15%, farm land 10%)-Dec. 26; 5:30 a.m. to 5:30 p.m. Overcast in the forenoon, clear rest of day; temp. 300-450F; wind changing from S to W to N, 0-10 m.p.h.; barometer 29.95 in. Four observers in one group. Total hours, 12 (8 on foot, 21/2 in rowboat, 11/4 in car); total miles, 30 (7 on foot, 3 in rowboat, 20 in car). Pied-billed Grebe, 2; Great Blue Heron, 3; Canada Goose, 6; Mallard, 10,000 (est.); Black Duck, 1; Gadwall, 70; Baldpate, 2; Green-winged Teal, 2; Blue-winged Teal, 28; Shoveller, 24; Ringnecked Duck, 120; American Golden-eye, 4; Black Vulture, 24; Red-tailed Hawk, 9; Red-shouldered Hawk, 5; Bald Eagle, 1; Marsh Hawk, 4; Bobwhite, 14; Coot, 450; Herring Gull, 3; Ring-billed Gull, 14, Great Horned Owl, 3; Barred Owl, 11; Kingfisher, 3; Flicker, 5; Pileated Woodpecker, 2; Red-bellied Woodpecker, 13; Red-headed Woodpecker, 3; Yellow-bellied Sapsucker, 7; Hairy Woodpecker, 1; Downy Woodpecker, 10; Blue Jay, 7; Crow, 270; Carolina Chickadee, 22; Tufted Titmouse, 7; Brown Creeper, 6; Winter Wren, 4; Carolina Wren, 16; Short-billed Marsh Wren, 8; Mockingbird, 11; Golden-crowned Kinglet, 8; Ruby-crowned Kinglet, 2; Loggerhead Shrike, 3; Starling, 900 (est.); English Sparrow, 108; Meadowlark, 32; Red-wing, 2,000,000 (est., tremendous continuous flocks, streaming in to roost, were observed for one-half hour at dusk); Rusty Blackbird, 95; Bronzed Grackle, 69; Cowbird, 55; Cardinal, 45; Goldfinch, 16; Red-eyed Towhee, 4; Slate-colored Junco, 39; Field Sparrow, 12; Whitecrowned Sparrow, 32; White-throated Sparrow, 18; Fox Sparrow, 10; Song Sparrow, 12; TOTAL, 59 species; about 2,012,650 individuals. (Seen in area Dec. 27 and 29: Double-crested Cormorant, 21; Turkey Vulture, 3; Peregrine Falcon, 1; Sparrow Hawk, 3; Killdeer, 2; Mourning Dove, 1; Screech Owl, 1; Robin, 7; Hermit Thrush, 4; Bluebird, 3; Myrtle Warbler, 12).-James L. Norman; P. W. White, Jr.; Thomas Walker, Jr.; and Lawson Hughes.

HENDERSON, Tenn. (Chester County and Chickasaw State Park) Dec. 19; 8:00 a.m. to 5:00 p.m. Temp. 280 to 600. Fair, practically no wind. Four miles on foot and 55 by car. Four observers. Robert L. Witt (compiler).

CLARKSVILLE, Tenn. (from Gracey Avenue via Paradise Hill Road, Hiett's Garden, across Coke's Creek, Robins' Swamp, across McAdoo Creek, Tennessee Central Railway Track to Mark's Slough, and return by parallel route including fields near Indian Mounds) Dec. 23; 7:30 a.m. to 4:30 p.m. Changing from overcast with low visibility to fair and sunny about 10:00 a.m.; temp. from 40° to 50°; light north wind; stage of river very low. Three observers in one party: Alfred Clebsch, Sr., Alfred Clebsch, Jr., Edward Clebsch.

NASHVILLE, Tenn. (Environs, including Radnor Lake, Overton Hills Forest, Leawood, Hobbs to Tyne Lanes, Richland Creek, Harpeth River Valley, Warner Parks, Bellemeade, 101 pasture, Davidson Road, Hillwood, River Road, Bell's Bend of Cumberland River, Germantown, Shelby Park, and Knapp farm. Open fields 25%, dense woods 20%, wooded grasslands 30%, thickets and old fields 25%). Dec. 21; 7 a.m. to 5 p.m. Clear in a.m., overcast in p.m.; temp. 30° to 41°; light NW wind. Ground bare (no snow to date). Twenty-two observers in 8 parties. Total party-hours 54. Total party-miles, 28 by foot and 55 by car. B. H. Abernathy, H. G. Bradley, Tom Butler, Bill Crouch, Steve Fuqua, Albert F. Ganier (compiler), Eleanor Gorham, R. M. and Mrs. Hawkins, Helen Howell, Amelia R. Laskey, Barbara Longcrier, Arthur McMurray, G. R. Mayfield, J. A. Robins, Ed. Schreiber, Robert Sollmann, Curtis Sorrells, Walter R. Spofford, H. S. Vaughn, James Wade, and Geo. B. Woodring.

An estimated 125,000 Robins and 500,000 Starlings, plus 10 grackles, were present at a roost; this was located in a small valley, densely filled with deciduous trees and thickets, about seven miles northwest of Nashville. The number of Bronzed Grackles includes an estimated 1,000 seen together. Also, 30 of the Black Vultures were together, and 500 of the Crows were together. Also seen on December 20: (Herring?) Gull, 1; Marsh Hawk, 1. On December 25: Pintail Duck, 1; Bufflehead, 1.

This was the thirty-fourth consecutive Christmas census by members of the Nashville Chapter, Tennessee Ornithological Society.

GREAT SMOKY MOUNTAINS NATIONAL PARK, Tenn. (same area as in past 10 years; circle with 71/2 mile radius centering on Bull Head of Mt. LeConte, including a section of the Tennessee-North Carolina divide from Collins Gap to Mt. Kephart; towns of Gatlinburg and Pigeon Forge; open farmland 25%, deciduous forest 25%, spruce forest 20%, abandoned fields 20%, town and suburbs 10%). Dec. 28; 7:15 a.m. to 8:00 p.m. Clear throughout the day; temp. 290 to 570; wind variable, mostly easterly, strong at high altitudes in a.m., light in p.m.; ground frozen in a.m., covered with thin snow blanket in woods above 4,000 ft. Altitude range 1,200 to 6,000 ft. Twenty-six observers in 9 parties. Total party hours 73; total miles 385 (325 by car, 60 on foot). Mrs. Juanita Allen, Fred W. Behrend, Mr. and Mrs. Harvey Broome, Mary Ruth Chiles, Brockway Crouch, Edward W. Dougherty, Mr. and Mrs. Robert J. Dunbar, Thos. W. Finucane, Mr. and Mrs. Harry Henry, Lee R. Herndon, William M. Johnson, Mrs. Frank Leonhard, B. Franklin McCamey, Jr., Mr. and Mrs. Robert A. Monroe, S. A. Ogden, Myrtle M. Seno, Donald C. Snoddy, Arthur Stupka (compiler), James T. Tanner, Rowan Tague, Paul Yambert, William Yambert.

The count of Chickadees included both the Black-capped and Carolina Chickadees.

GREENEVILLE, Tenn. (circle of 7½ miles radius about town, including Reed Farm along Roaring Fork Creek, Lick Creek, Bay's Mountain at Marvin, Tusculum, Afton, Shiloh, Bird's Bridge Road to the Nolichuckey River, Frank's Creek, Kingsport Road to Cross Anchor, Babb's

Mill Road; streambanks 30%, deciduous woods 25%, open fields and thickets 40%, city suburbs 5%). Dec. 26. Fair; temp. 30° to 36°; wind SSW, 20-25 m.p.h. Twelve observers in four parties. Total hours, 31; total miles, 35 (15 on foot, 20 by car). Mr. and Mrs. Willis Clemens, Bobby Doty, Jimmie Don Hankins, Mr. and Mrs. Richard Nevius (compiler), Mr. C. M. Shanks, Johnny Shanks, Dan and Allen Vinton, Mr. and Mrs. J. B. White.

The Rusty Blackbirds were observed fifteen minutes at a range of ten feet.

JOHNSON CITY, Tenn. (vicinity of Boone's Creek). Dec. 28; 8:00 a.m. to 2:00 p.m. Clear; temp. freezing; wind calm. Two observers in one party. Robert B. Lyle, Bruce P. Tyler.

ELIZABETHTON, Tenn. (Same area as in 1946, Watauga and Doe Rivers, Buffalo and Gap Creeks; stream borders 60%, woodlands 25%, open fields 15%). Dec. 21; 7:30 a.m. to 5:00 p.m. Clear, no wind; temp. 270 at start and 400 at end. Thirteen observers in 9 parties. Total hours afield 41; total miles 44 (on foot). Fred W. Behrend, J. C. Browning, Miss Mary Cook, Mrs. Hugo Doob, Mr. and Mrs. Thomas W. Finucane, Mr. and Mrs. Lee R. Herndon, Mr. and Mrs. George K. Leonard, Wm. A. Sutherland, Mr. and Mrs. Gordon E. Thomas.

The Yellow-throat was observed in good light at a distance of 12 feet by Dr. Lee R. Herndon.

THE ROUND TABLE

SUMMARY OF THIS AUTUMN'S OBSERVATIONS OF HAWK MI-GRATIONS—In the September issue of THE MIGRANT was published a description of plans that several T. O. S. members were making to observe the migration of hawks during this autumn. The members of the Elizabethton chapter carried out their plans of regular trips to Hump Mountain, at least as well as the weather would allow. Most of their trips were interferred with by fog or storm, and on the few days that the weather was decent the wind was from the wrong direction for a good hawk flight. The most successful day was October 5th, when fourteen individuals of five species of hawks, plus two Turkey Vultures, were seen; the weather was warm with a south wind.

The members of the Greeneville chapter attempted a trip to Camp Creek Bald, but there were "fogged in."

In the Knoxville area the only discovery was a clue that might lead to finding something definite next year. In one area a few miles northeast of Knoxville were observed several more hawks than elsewhere; this area is at the end of Clinch Mountain, a ridge which stretches away to the northeast for many miles. On Nov. 16, 1947, Joseph C. Howell and I saw ten hawks, plus twenty Turkey Vultures, at this spot during two and a half hours of late afternoon. Next year, observations will be made

along Clinch Mountain to see if there might not be a flight of migrating hawks along there. We hope that next year will provide better weather for this project.

Walter R. Spofford of Nashville reported in a letter dated December 6, 1947, that Golden Eagles had already appeared in the areas on Middle Tennessee where they have been seen in previous winters. It is still, as far as I know, a complete mystery as to where these eagles come from.

—JAMES T. TANNER, University of Tennessee, Knoxville, Tenn.

ANOTHER TREE-NESTING PEREGRINE FALCON RECORD FOR TENNESSEE—Several nests of the Peregrine Falcon (Falco peregrinus) built in the cavities of trees and located in the Mississippi River Valley were mentioned in an article appearing in an earlier issue of THE MIGRANT (Spofford 1942). A letter from Mr. Thomas Butler of Paris, Tenn., dated April 28, 1947, describes another nest found in 1940 by a student at Murray College, Kentucky. This nest was not in a cypress tree as in the several eyries previously described, but was in a cavity of a big sycamore, as were nests mentioned by Ridgeway in Illinois in the 1870's. The present nest contained three young.

The nest was visited by Mr. Butler in April, 1947, but was discovered to be now a bee-tree, and the surrounding heavily cut-over woodlands appeared to no longer harbor a pair of these spectacular falcons. Furthermore, machine-gun and bombing ranges had been established near the nest during the war, and the site at present is definitely deserted. The site is in a swamp along the Mississippi River some miles from Hale's Point, Tennessee. — WALTER R. SPOFFORD, Vanderbilt University, Nashville, Tenn.

Ref. cited: Spofford, W. R. 1942. MIGRANT, 13: 29-31.

FRANKLIN'S GULL AT MEMPHIS-Prior to the summer of 1939, the several city sewers emptied separately into the Wolf River and, below its mouth, into the Mississippi River. Wintering gulls were often seen in front of town and the favored spot was opposite the end of Talbot Street, where the birds could be seen while one was driving along Riverside Drive. Subsequently, most sewers were connected together and extended south to Georgia street. Here, from the top of the bluff, is a good location to see gulls. On my first visit of this season, a brief stop on November 19, 1947, I observed three gulls: an adult Franklin's Gull, another Franklin's in first winter plumage, and a Ring-billed Gull in second winter plumage. A size comparison with the latter and several looks at the wing pattern confirmed my identification of the Franklin's Gulls. Both birds were in normal plumage for their phase except that on the adult the white across the wings separating the black tips from the grey mantle, was not as conspicuous or as wide as shown in Peterson's guide. The next morning Mrs. Coffey and I returned with binoculars and examined them more closely. Three immature Ring-billeds were then present. On the afternoon of November 27, several local members found the adult Franklin's Gull to be the only gull present there. It was still present Dec.

3 and may have remained longer, but I did not visit this point again until Dec. 20, at which date it was not seen.

In previous years this species has been reported at St. Louis and in Lake Erie, Nov. 18-21. The only other record I know of for the Memphis area is for Hughes, Arkansas (30 miles SW of Memphis), Nov. 2, 1932, when a flock of 50 to 60 gulls were reported following a plow on the Newhope Plantation. One was wounded, then brought to the Memphis Zoo where it soon died. Through the courtesy of Mr. J. E. Jolly, Earl Henry mounted the bird and subsequently its identity as a Franklin's Gull was verified by Dr. H. C. Oberholser. The present record of this prairie species is the first for Tennessee within the knowledge of Mr. Albert F. Ganier and the writer. Mrs. Coffey and I have seen the two similar gulls—the Laughing and the Bonaparte's—in several areas at various seasons. While at Fort Sill, Oklahoma, we had the opportunity of seeing thousands of Franklin's Gulls in migration.—BEN B. COFFEY, Jr., 672 N. Belvedere, Memphis.

BIRDS FEEDING ON TERMITES-About noon on May 1, 1947, I noticed that termites were emerging from a cavity at the base of a very large silver maple tree, a few feet from the windows of our home. On the jutting base of one side of the tree, a large mass of the winged insects had settled on the bark, some had dropped to the lawn, and others were flying about. I poured a kettle of hot water over the mass on the tree and returned indoors. Immediately a Redstart in female plumage arrived, caught several of the flying termites and some from the blades of grass. In a moment it was joined by a Palm Warbler, which also caught some on the wing and in the grass. As a Yellow-breasted Chat arrived, the Warblers flew. The Chat ate some of the scalded termites but several times entered the rather dark cavity under the tree to get the living termites as they crawled toward the light. Next came a male Cardinal and the Chat left. The Cardinal, balancing on the sloping tree base, rapidly picked up the dead termites. He was soon joined by his mate. She apparently was not hungry, for in a desultory fashion she ate only a few, but when the male offered her some on two occasions she accepted them from him and swallowed them. He continued to eat for some minutes as she hopped about the lawn. A Wood Thrush arrived and ate with them.

No further observations were made during the afternoon, but about dusk the Chat was feeding there again, going in and out of the cavity. It reappeared the following day hunting a meal, but by that time the termite exodus had ceased.—AMELIA R. LASKEY, Graybar Lane, Nashville, Tennessee.

THE SEASON AT MEMPHIS—This opportunity is taken to review the year to date. The local chapter scheduled a trip to Moon Lake, Mississippi, on Feb. 16 and listed, among other waterfowl, 900 Ruddy Ducks. Enroute a Western Meadowlark was heard singing and was seen at the same area as previously reported, 6½ miles south of Tunica, Mississippi.

On the March trip to Overton Park on the 30th: 3 House Wrens (early and uncommon), 6 Yellow-throated Vireos, and, passing over, 3 Upland Plovers. Records of the Golden-winged Warbler have never been common for me, but this spring I listed it in Overton Park: April 12, 1; April 19, 1; April 30, 2; May 3, 1. A Cape May Warbler was seen there May 3. Oven-birds were common in the park: April 22, 1; April 30 to May 6, up to 15 being seen or heard singing each day, with others probably unnoticed in the ground cover of poison ivy there. A Philadelphia Vireo was seen April 20 and another was reported for the Spring Field Day, May 4. The first Least Terns (11) were seen May 22 (late) and with them on and near the foot of Mud Island were 50 Black Terns. On Aug. 15 a flock of 30 of the latter were seen flying low over the river and southward. The Least Terns were probably at Redmond Bar, their usual nesting site, before the above date, as Merrill Schwartz reported young and nests with eggs in late June.

Ten Upland Plover were seen at the Municipal Airport July 16 and again on Aug. 20. The first wandering herons, evidently from distant heronries, were noted on June 19 and were seen for several weeks in small numbers on Mud Island and along the Wolf River levee. Because of the second and late rise of the Mississippi, which left trapped water in Mud Lake, the shoreline of the latter did not retreat down the levee and thru the border of trees until about Aug. 24. On that date were counted: American Egret, 173; Great Blue Heron, 24; Little Blue Heron, adults 3, immature 22. On Sept. 1: American Egret, 127; Great Blue Heron, 1; Little Blue Heron, adult 148 (unusual), immature 26; Snowy Egret, 3; and Blue-winged Teal, 22.

On Sept. 14 the chapter visited Mud Lake again and waded around it, recording, among others: American Egret, 150; Little Blue Heron, 25 adults, 15 immatures; Blue-winged Teal, 60; Semipalmated Plover, 4; Killdeer, 90; Lesser Yellowlegs, 80; Pectoral Sandpiper, 120; Least Sandpiper, 25; and Least Tern, 20. As we were leaving, a beautiful adult Bald Eagle came into view. Several hundred Swallows were seen, mostly Rough-wingeds and Trees, with 10 Banks, 1 Barn, and 1 Cliff. Most of the party continued to Flower Lake, near Tunica, Mississippi, where 60 Wood Ibis were seen. On Oct. 12 our party found Mud Lake practically dry. Along the levee the swallows were practically all Tree Swallows, the total of estimates being 825; a Cliff and 5 Rough-wingeds were among them. We tried Mound City Chute, across the river, and met fair success with an adult Bald Eagle as the high point. While banding Chimney Swifts on Central High, Sept. 28, we saw 6 Broad-winged Hawks moving southward. Five Swifts on Oct. 25 were the last noted.

We were honored on our Fall Field Trip to Shelby Forest, Oct. 26, by the presence of Mr. Albert F. Ganier of Nashville. A flock of 15 Blue Geese contained one (Lesser) Snow Goose. A stop at Field 21, a Navy auxiliary airfield, netted over a hundred Savannah Sparrows, 40 American Pipits, 2 Prairie Horned Larks, 2 Marsh Hawks, and Killdeer and Meadowlarks.—BEN B. COFFEY, Jr., Memphis, Tenn.

THE MIGRANT

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The simple truth about birds is interesting enough;

it is not necessary to go beyond it.

EDITORIAL

When the United States Biological Survey began to obtain information about the distribution and migration of North American birds, it called upon amateur bird observers over the country to make and record observations of birds and to send their records in to the Survey. That system of collecting information worked; the amateurs formed an army of volunteer observers that amassed a tremendous amount of data on the ranges of birds and their migrations. The system is still in effect, with changes made possible by the growth of bird study thruout the country. One of the present methods of collecting information used by the Fish and Wildlife Service (as the Biological Survey has since been renamed) is for workers to read the pages of journals and bulletins like THE MIGRANT and to clip from them articles and notes written by people like the members of the T. O. S.; these clippings are then filed so that the information in them will be easily available. In these ways countless bird students have furthered the science of ornithology.

And the task is not yet done. At the meeting of the American Ornithologists' Union held a year ago last fall, there were more scientific papers
presented on one subject than on any other; these papers discussed the
factors and conditions that affect the distribution of birds, or why birds
live where they do and not somewhere else. Why were there so many
speakers on this subject? Because there is still not enough known about
birds to explain the geographical limits of a bird's range or its choice
of habitat. Many hypotheses have been suggested, and these hypotheses
and related unsolved problems stimulated the speakers to present their
papers. Before a solution is found, many more observations and records
are needed—accurate observations with records of the abundance of birds
and the kinds of habitat where they are found. The amateur with his
field glasses and notebook can do this; he still is and probably always
will be a valuable worker in the field of ornithology.

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