

THE MIGRANT

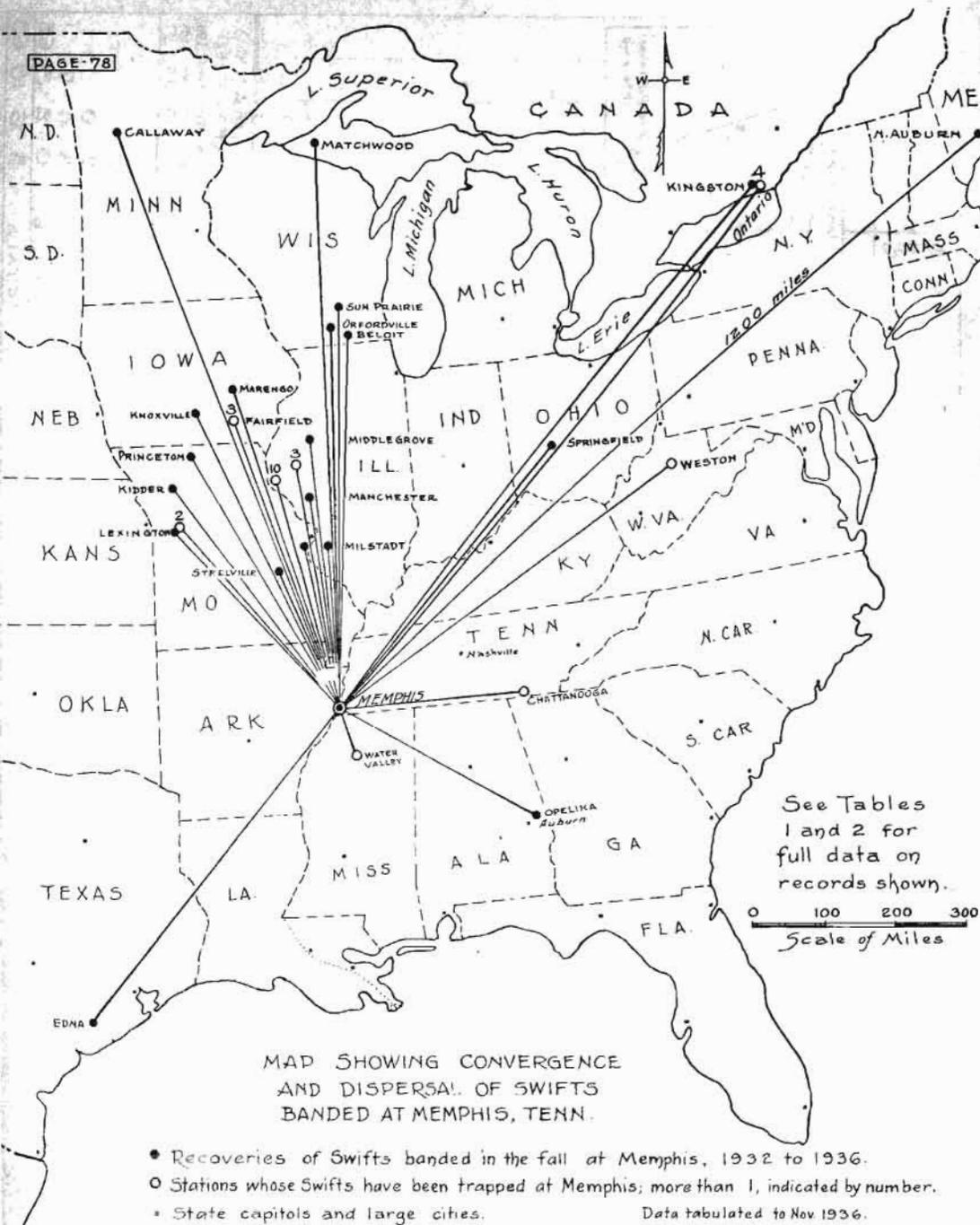
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MAP SHOWING CONVERGENCE AND DISPERSAL OF SWIFTS BANDED AT MEMPHIS, TENN.

- Recoveries of Swifts banded in the fall at Memphis, 1932 to 1936.
 - Stations whose Swifts have been trapped at Memphis; more than 1, indicated by number.
 - * State capitals and large cities.
- Data tabulated to Nov 1936.

TABLE 4 - RECOVERIES, YEARS AFTER BANDING.

YEARS →	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	5
FOREIGN, AT MEMPHIS	1	4	5	1	6	1	2	1	2	1
MEMPHIS, ELSEWHERE	0	-	13*	-	6	-	1	-	0	×
MEMPHIS AT MEMPHIS	×	-	72	-	9	-	5	-	0	×

* OUT OF PROPORTION, DUE TO LARGE NUMBER BANDED IN 1935.

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CHIMNEY SWIFT MIGRATION AT MEMPHIS

By BEN B. COFFEY, JR.

For the last five autumns, large numbers of Chimney Swifts (*Chaetura pelagica*) have been banded here at Memphis, Tenn., and a careful record kept of these operations. They are taken in traps which are placed over the tops of individual chimneys before the roosting flocks emerge, normally at daybreak. The technique of trapping is somewhat similar to that described by Prof. Wyman R. Green of work done by him at Chattanooga (see *Wilson Bulletin* 1930, V. 42, pp. 110-118) and for lack of space will not be detailed in the present article. A photo of one of our traps in operation, however, will be found in *The Migrant* for Sept., 1935.

Chimney Swifts are ceaseless flyers, stopping only to cling to the sides of a chimney or rarely, within hollow trees or the side walls of some abandoned and remote cabin. Their diet is therefore wholly insectivorous, a fact which makes them extremely valuable to man. Most migrating birds travel by night but Swifts spend their nights in suitable roosting places and migrate by day, feeding when necessary during the course of their unhurried flight. For this reason they seemingly avoid any long trip over water but follow a land route. Thus they travel the long circuitous route presumably overland thru Mexico and Guatemala to their winter home, as yet unknown to ornithologists but believed to be in northern South America. This may explain the apparent southwestward movement of many swifts from the Northeast, referred to later.

A map and two tables, Nos. 1 and 2, are presented herewith to show the convergence and dispersal of Swifts banded at Memphis. None of our birds have been heard from after they have left Memphis, before the next spring on their return. One banded Oct. 20, 1934, has been reported southwest of here, at Edna, Texas, found dead May 6, 1935. This may indicate a late migrant; a Swift banded a week earlier was trapped on May 8, 1935 at Queen's University, Kingston, Ontario. These two were 1,500 miles apart at about the same time. The lone recovery southeast of here was a 1933 swift trapped Oct. 6, 1936 by H. S. Peters at Opelika, Ala. This does not necessarily indicate a movement from Memphis southeast; the more probable explanation is that this Swift, from some point much farther north, took a different route south one fall than it or its companions normally use. Even so; such a case is apparently an exception, judging by the fact that Mr. Peters trapped 21,500 swifts this fall (1936) in the Auburn, Ala. and Atlanta, Ga. areas and this was the only one of our 5,907 recovered. Only as late as last year had we tagged 3,900. Twenty-three other of his recoveries were from Kingston, Ont., Weston, W. Va., and other points north and northeast, with nearly half from Kingston. A similar explanation can be made for the

1930 Chattanooga Swift which we trapped here on Oct. 12, 1934. At Water Valley, Miss., M. M. Turner and E. Earl Bell have banded a total of 2,366 swifts, from Sept., 1931 to 1935, inclusive, and only one of their birds was trapped here altho Mr. Turner has one Iowa recovery recorded. Their other recoveries are reported from Ohio to New Hampshire. Their "foreign" birds were from Kingston and Weston but none from Memphis or the Quincy, Ill. area.

The bulk of our recoveries and our "foreign" birds are from points in the Mississippi Valley above Memphis. Reference to the map will show, however, that we have enough records of both kinds from the northeast to indicate at least a partial southwestward movement of Swifts from that area in the fall. Unfortunately we do not have any recoveries, as noted previously, of our birds after they leave us going south. Mr. Musselman of Quincy, Ill., however, reports some recoveries of his birds from Texas. While Mr. Peters secured ten Kingston swifts out of over 21,500 examined this fall we secured two out of 2,645 examined at the same time. Figuring on a proportional basis would not be accurate, we believe, because on such a low recovery as two, chance plays too great a part. If we had examined 10,000 the picture would be clearer. Out of 4,530 examined in 1935 we only had two Kingston birds, and none from 1932 to 1934 when we handled an average of 1,000 birds each fall. Meanwhile Water Valley picked up a few from Kingston and Weston and Prof. Green at Chattanooga had 12 from Weston among 10,660 swifts trapped there the fall of 1929.

Only once has a Swift banded north of us during fall migration been recovered here that same season. 34-39981 banded by Irvin Sturgis at Lexington, Mo., on Aug. 16, 1935, was taken by us on Oct. 19, 1935, in the last flock we trapped that year. The Kingston Swifts were banded in spring and re-taken here the following fall, two last year and two this year. Two from the same flock—May 24, 1935, at Kingston—were trapped here on the divergent dates of Sept. 21, and Oct. 19, 1935.

A study of Table 3, showing local returns and repeats, will give some idea of local movements. I will not analyze it in detail but will describe some of our experiences with the flocks. It will be noted that a few Swifts banded at the start of the season are re-trapped at later dates, sometimes in our last catch. Swifts banded in former years do not always return about the same time but may be picked up as returns any day in September or October. However, it is my belief, based on the following experiences, that these divergent returns are exceptions—not uncommon but, nevertheless, exceptions.

In 1932 and 1933 we had only 500 bands and trapped only once each fall. The 1933 flock we worked numbered about 5,000. Part came out in the morning, part about noon, and the remainder spent the day down the chimney. A large number were allowed to escape but we examined 1,300 and found not a 1932 Swift. We trapped Oct. 20 in 1932 and Oct. 10 in 1933 at the same large chimney. But the 1933 flock evidently contained few, if any, members of the 1932 flock. In 1934 we secured 1,000 bands but our big chimney was covered over, so we had to "work" for our 990, trapping four times at other places. From Oct. 10 to 20, we secured two 1932 birds. This was a very poor showing, especially when compared with results at Quincy and Clayton, Ill. Evidently a much larger number of them pass thru Memphis than was ordinarily assumed.

TABLE I.—SWIFTS BANDED AT MEMPHIS AND RECOVERED ELSEWHERE.

1932	Oct. 20	(Banded 500)			
1933	—May 13	H59990	Millstadt, Ill.		caught by a cat.
1934	—June 1	H59504	Raleigh (Memphis)		caught in house, died of starvation.
	June 8	H59570	Matchwood, Mich.		found dead.
	June 13	H59908	Princeton, Mo.		captured, released.
	July 23	H59528	Springfield, Ohio		captured in chimney.
1933	Oct. 10	(Banded 517)			
1934	—May 3	H61003	Manchester, Ill.		found dead.
	June 17	L25005	Orfordville, Wis.		found dead in chimney.
1935	—April 15	H61109	Steelville, Mo. (20 miles south)		came down chimney, probably released.
	Aug. 5	H61318	Knoxville, Iowa		found dead.
1936	—Oct. 6	H61466	Opelika, Ala.		trapped and released.
1934	Oct. 10 to 20	(Banded 990)			
1935	—May 6	34-71811	Edna, Texas		found dead.
	May 8	34-71508	Kingston, Ont.		trapped and released.
	Aug. 31	34-71090	Middle Grove, Ill.		caught and released.
	Sept. 21	34-71049	Lexington, Mo.		trapped and released.
1935	Sept. 21 to Oct. 19	(Banded 3900)			
1936	—May 20	36-4512	near Marengo, Iowa		found dead.
	May 27	36-7521	Sun Prairie, Wis.		caught in building.
	June 6	36-478	North Auburn, Me.		found injured, died.
	June 19	36-4078	Callaway, Minn.		found dead in chimney.
	July 1	36-4521	Kidder, Mo.		had nest in chimney.
	Sept. 29	36-1303	Kirkwood, Mo.		found dead.
	Oct. 2	36-4745	Beloit, Wis.		trapped and released.
Total banded at Memphis, 5907.					

TABLE II.—SWIFTS BANDED ELSEWHERE (FOREIGN) AND RECOVERED AT MEMPHIS.

Place.	Date Banded.	Number.	Trapped Here
Quincy, Ill. (Dr. T. E. Musselman)	Oct. 3, 1930	C31694	Oct. 8, 1936
	Sept. 6, 1931	C96417	Oct. 10, 1933
	Sept. 20, 1931	B175076	Oct. 10, 1933
	Sept. 27, 1931	C96681	Oct. 10, 1933
	Sept. 19, 1931	C96633	Oct. 12, 1934
	Sept. 22, 1931	A162332	Oct. 9, 1935
	Sept. 11, 1932	B173694	Sept. 30, 1935
	Aug. 30, 1933	H52730	Oct. 6, 1935
	Oct. 10, 1933	F127742	Oct. 1, 1936
	Oct. 20, 1934	F127803	Oct. 1, 1936
Clayton, Ill. (Mr. Russell S. Davis)	Sept. 7, 1932	C91672	Oct. 10, 1933
	Sept. 11, 1933	C92213	Oct. 20, 1934
	Sept. 11, 1933	C92038	Oct. 12, 1935
Fairfield, Iowa (Prof. Carl Welty)	May 13, 1933	L17094	Oct. 20, 1934
	May 13, 1933	L17946	Oct. 1, 1936
	May 12, 1934	34-126196	Oct. 1, 1936
Lexington, Mo. (Mr. Irvin Sturgis)	Aug. 15, 1935	34-39901	Oct. 1, 1936
	Aug. 16, 1935	34-39981	Oct. 19, 1935
Kingston, Ont. (Miss Ida Merriman)	May 24, 1935	34-41109	Sept. 21, 1935
	May 24, 1935	34-41409	Oct. 19, 1935
	May 16, 1936	34-45159	Oct. 8, 1936
	May 24, 1936	34-47101	Oct. 8, 1936
Weston, W. Va. (Mr. I. H. Johnston)	Sept. 21, 1934	34-57799	Sept. 28, 1935
Chattanooga, Tenn. (Prof. Wyman R. Green)	Sept. 24 1930	C59861	Oct. 12, 1934
Water Valley, Miss. (Mr. M. M. Turner)	Sept. 8, 1935	35-136326	Oct. 8, 1936

On Oct. 12, 1934 the Swifts emerged late and banding the 223 birds was completed late in the evening, just about time for the flock to be circling. We did not expect any birds nor have any here; however, we set up our trap at a roost less than two blocks away and expected many of those 223 birds to move to the second chimney. The last ones banded did not have much time to go elsewhere but next morning, of the 336 birds we caught, only one bore a band attached the day before.

In 1935 we started earlier, and, dissatisfied with the paucity of our returns, kept going, banding ten times and having sufficient bands on all except one occasion. In 1936 we were ready to start, still earlier, the middle of August, but the Swifts wouldn't "play ball" with us and use our low uptown chimneys which we watched night after night for two months—a repetition of our 1936 spring campaign which netted not a swift. Where we banded 3,900 swifts in the fall of 1935 we only secured 381 this fall. All flocks seen uptown were very small, meanwhile flocks of 3,000 to 5,000 were using high chimneys on schools and similar buildings out in the city. Still, I do not believe trapping alienates them from favored chimneys. Each night the flock present is a new one with less than five or six repeats and it either assembles and goes down a certain chimney or uses another somewhere else. In 1935 we often watched, enviously, some 2,000 to 5,000 swifts pour down the St. Agnes Academy chimney which was much too high for us to place a trap. It had been in use as a roost previous seasons also but in 1936 not a flock used this chimney.

After the first trappings in 1935, the flocks decreased in size and I made no plans as the next week-end approached. That Saturday evening, Sept. 28, I noticed swifts coming from the southeast in waves similar to swallows. Evidently a heating plant had been put in service, probably at St. Agnes Academy, forcing a large flock to seek quarters elsewhere. About 1,500 circled over the Oliver chimney while another 1,500 went down a chimney in a vacant building two blocks south (we trapped last year at both locations). A few from Oliver dropped in but soon emerged as the chimney was still hot altho the fire was discontinued at noon. As it grew dark this flock moved off and went down the other chimney too. Failing after several hours to contact the party with keys to this building, I decided to watch again Sunday evening when the Oliver flue should have cooled off. About 1,500 went down and I recruited a few helpers for next morning, Sept. 30, though it was a work day and school day. I did not cover the chimney or place the trap in position for fear the occupants should decide to start up the heating boiler. We were delayed the next morning but Swifts were still emerging as I reached the roof and raced to place a heavy cardboard over the opening. We banded 522 and found 3 that had been banded on the 22nd, three-tenths of a mile south, but none of those banded at this same chimney on the 21st. Since approximately 1,000 swifts had emerged in a normal fashion, without a covering or trap to disturb inherent instincts, I reasoned many should return that night and planned accordingly. Only 35 to 40 did. Mrs. Coffey and I, however, caught these before work hours and found a 1932 return among them.

The next week-end on Friday night, Oct. 5, about 4,000 swifts went down

(CONTINUED ON PAGE 96)

SUMMER BIRDS OF ROAN MOUNTAIN

BY ALBERT F. GANIER

Roan Mountain is situated on the line between Tennessee and North Carolina, about 33 miles south of the Virginia line. It is a part of the Unaka chain and its altitude (6313 ft. s. l.) is unsurpassed in the Eastern United States, except for a few peaks in the Mount Mitchell group and in the Great Smokies, 90 miles to the southwest. Roan Mountain proper extends from Carver's Gap (5500 ft.) in a southwesterly direction about 5 miles to a bit beyond Roan High Bluff (6287 ft.). Along this line we encounter, at mile 0.7, Roan High Knob (6313 ft.); at mile 1.3, site of the former Cloudland Inn (6150 ft.); the present lodge (6100 ft.) and the spring (6000 ft.); at mile 1.5, Sunset Rock (6200 ft.); at mile 1.7 to 2.0, the Rhododendron "Gardens," (5600-6000 ft.); and finally Roan High Bluff, above mentioned. A half mile to the east of The Gap, Little Roan Mountain rises to 5700 ft. and this area is included in the present paper.

The mountain, say from about 5000 ft. upward, is of the Canadian Zone in its fauna and flora. This is particularly evidenced by the presence, from the High Bluff to the High Knob, of an almost unbroken line, at or near the summits, of balsam fir (*Abies fraseri*), red spruce (*Picea rubra*) and in places the dwarf shrub, sand myrtle (*Dendrium buxifolium*). Much of the actual summit consists of "balds" on which a short coarse grass grows thickly to form mountain meadows. Dotted about in some of these meadows are clumps and areas of rhododendrons, which here reach the greatest perfection in flower and form. One area of about 100 acres is very aptly called "The Rhododendron Gardens" and when in full bloom, about mid-June, the floral display of these shrubs is gorgeous. A half mile east of Roan High Bluff, on a bench of the mountain side, lies The Big Meadow (5200-5700 ft.) dotted and surrounded by the low growing, picturesque mountain beeches. The top of Little Roan is similar to the last mentioned area.

The summer temperature of the mountain is quite surprising in that it is probably the coolest place in the eastern United States at that season. The thermometer rarely registers above 60 degrees Fahrenheit in the shade on clear days and more often ranges below that at mid-day. On one morning, June 18, the writer witnessed frost, while on that day at Knoxville, in the valley, temperatures ranged from 76 to 98 degrees.

Within recent years, the once splendid forests of fir and spruce have been cut out, nearly to the tops, thus damaging the scenic aspects and perhaps altering the bird life to some extent. All in all, Roan Mountain is pleasingly different from any other, in many ways the queen of eastern mountains and the time will doubtless come when it will be added to our great system of National Parks.

Ornithologists on three previous occasions have visited this mountain in summer and published papers* which included notes on its breeding birds. Unfortunately, none of these writers has made a definite separation of the species found "on top" and those found on the slopes at much lower altitudes. Too often their records refer merely to "Roan Mountain" without any clue as to whether on top or perhaps well down on the slopes,

The week of June 15 to 20 inclusive, of 1936, was spent on Roan Mountain by a party of twelve bird students** including the writer. Our purpose was to make as complete a list as possible of the breeding birds to be found about the summits. We confined our observations to the area lying above the 5000 foot contour, which area approximately embraces the Canadian zone. Except for a few hours of rain or heavy fog, we were afield continuously and covered every part of the mountain top. Our list for the area mentioned totaled 32 species but doubtless a few other species were present that escaped our attention. The subspecies shown are not based on specimens, except as noted, but are those believed to be the prevailing form. The list follows:

TURKEY VULTURE (*Cathartes aura septentrionalis*).—Noted soaring along the mountain top, as many as 5 on one occasion.

EASTERN RED-TAILED HAWK (*Butea b. borealis*).—One observed soaring above Little Roan and another, a half mile south of Roan High Bluffs.

SHARP-SHINNED HAWK (*Accipiter velox*).—An individual noted near the lodge, by Carpenter, was believed to be this species though it may have been a male Cooper's Hawk.

DUCK HAWK (*Falco peregrinus anatum*).—One flew low over the "Rhododendron Gardens" on June 22, with prey in its talons. A "Peregrine" was also observed around Roan High Point, by Tyler, on June 24. The cliffs at the High Bluff, which I lacked time to examine closely, seemed well adapted to an eyrie.

EASTERN RUFFED GROUSE (*Bonasa u. umbellus*).—A single bird observed in flight at Big Meadow. Conditions on this mountain, especially in the open beech forest, seem well suited to this species.

EASTERN BOB-WHITE (*Colinus v. virginianus*).—One heard far down the mountainside. Conditions on top would seem suitable for it in summer.

CHIMNEY SWIFT (*Chaetura pelagica*).—Noted daily, sometimes eight or ten at a time. With only three or four chimneys on the mountain and those in use, it is probable that they descend to the valleys to nest and roost. Observed flying about evenings when it was nearly dark.

RUBY-THROATED HUMMINGBIRD (*Archilochus colubris*).—Observed daily, our record cards showing eight seen at various points along the summits. Most often seen in the Rhododendron Gardens feeding upon the profuse flowers of this shrub. Tyler states that here he counted about fifty on June 23, 1935.

NORTHERN FLICKER (*Colaptes auratus luteus*).—Apparently rare, for only two were seen on top.

EASTERN HAIRY WOODPECKER (*Dryobates v. vilosus*).—Seen on four occasions, once in the same buckeye tree with a pair of Downys.

NORTHERN DOWNY WOODPECKER (*Dryobates pubescens medianus*).—A pair observed at Big Meadow (5600 ft.) and a single bird at 5900 ft.

PRAIRIE HORNED LARK (*Octocoris alpestris praticola*).—A pair and a young

*References; (a) 1887, Sennett, George B., "Observations in Western North Carolina Mountains in 1886," Auk, 4:240-245; he was on Roan Mtn. April 24 to 29 and during most of July: 1895, Rhoads S. N., "Contributions to the Zoology of Tenn.—Birds" Proc. Phil. Acad. Sci., 1895, pp 463-501; he was on and about the mountain from June 18 to 23: (c) 1912, Bruner, S. C. and Field A. L., "Notes on the birds observed on a trip through the mountains of western North Carolina," Auk, 29:368-377; they were on Roan Mtn. and its slopes from June 29 to July 9, recording 32 species.

**The party consisted of Mr. and Mrs. John Bamberg, F. S. Carpenter, Alfred Clebsch, Jr., Dr. Cynthia C. Counce, George Davis, Miss Amy Deane, A. F. Ganier, R. B. Lyle, Miss Evelyn Schneider, Miss Mabel Slack and Bruce P. Tyler.

bird on the wing, were observed by all of us on the summit of Little Roan (5800 ft.) just s.w. of Carver's Gap. This is an extensive nearly bald summit; the grass on top is short and therefore suitable for this short-legged, ground walking bird. The presence of this species here, when it was doubtless nesting, was of particular interest. Messrs. Tyler and Lyle had previously reported it here, on June 30, 1935.

NORTHERN BLUE JAY (*Cyanocitta c. cristata*).—Apparently rare along the summits for only 3 were seen or heard. Duck Hawks are known to favor this species as prey.

NORTHERN RAVEN (*Corvus corax principalis*).—Perhaps the highlight of the trip was the sight of a flock of 7 or 8 of these birds on June 25, flying leisurely westward along the north side of Little Roan. Their flight was noticeably light and supple and they seemed to revel in following the air currents, up and down, with set wings after the manner of Turkey Vultures. Their bills are noticeably longer than those of Crows. We saw or heard one or more Ravens each day of our visit and at all points on the mountain. It would seem that they nest among the cliffs of Roan High Bluff or possibly in the fir trees, as they are known to do in Pennsylvania.

RED-BREADED NUTHATCH (*Sitta canadensis*).—Generally distributed in the fir belt, having been found in 7 different locations. A nest was found by Bamberg on June 23, at 5900 ft., containing 5 nearly fresh eggs. It was built 9 feet above the ground and a foot below the top of a dead spruce stub 12 in. in diameter, on a cut-over slope. The tree was punky and the wood soft, so the Nuthatch had excavated its own characteristic hole to a depth of 9 inches. As usual with this species, a small amount of gum had been brought and applied to the exterior about the entrance. A scanty pad of soft inner fibres of bark was beneath the eggs. The bird flushed readily when the tree was pounded on but later became harder to evict as a series of photos were being taken. A new nest cavity, partly finished, was found in the dead top of a small buckeye at Big Meadow and in a nearby spruce, old birds were watched at 10 feet, feeding young as large as themselves. By this it would seem that there is an early season nesting as with the White-breasted Nuthatch.

EASTERN WINTER WREN (*Nannus h. hiemalis*).—Our record card shows the finding of 6 singing males, they being found at various points alongside the summits where the fir timber was still standing. A parent bird was noted carrying food to its young on June 25.

CATBIRD (*Dumetella carolinensis*).—Noted at four points along the tops.

EASTERN ROBIN (*Turdus m. migratorius*).—Quite common everywhere along the mountain. Three nests were examined; one with 4 incubated eggs in a spruce, one with 4 fresh eggs in a haw, and one with 2 eggs in a beech. A male and a female collected, on June 22 at 6000 ft., were identified as of this form by Dr. Oberholser.

VEERY (*Hylocichla f. fuscescens*).—Fairly common in the fir belt and down the slopes into the deciduous forest. In the edge of the latter, at Big Meadow (5500 ft.) a nest was found on June 24, with 3 nearly fresh eggs. It was built 2 feet above the ground in one of a patch of small beech sprouts in thick woods. The bulky nest was built on a foundation of beech leaves and was principally of weed stems and fibres. An old nest was found nearby on low limb of a small spruce.

EASTERN BLUEBIRD (*Sialia s. sialis*).—The one pair noted were on top of Little Roan (5800 ft.) on June 25, feeding 5 nearly fledged young in nest in cavity of a small buckeye 12 feet up.

CEDAR WAXWING (*Bombycilla cedrorum*).—Three seen near Cloudland (6100 ft.) on June 25, and two the following day at Big Meadows.

MOUNTAIN VIREO (*Vireo solitarius alticola*).—Five observed at various points, from near the summits to Big Meadows (5600 ft.) where Lyle found a nest on June 22 with 3 young ready to leave. One of these young was captured two days later by watching the parent carry food. The nest was 9 feet up at end of beech limb near border of deciduous woodland.

CHESTNUT-SIDED WARBLER (*Dendroica pensylvanica*).—While we did not actually find this species "on top," yet it is worthy of record that a nest was found at 3700 ft. by Mr. Lyle on June 22. It was built 2 feet up in a small maple sprout and held 3 fresh eggs.

CANADA WARBLERS (*Wilsonia canadensis*).—Two pair were found on June 25, at elev. 5800 ft., south of The Gardens, and each were tending young. The following day we watched one pair for half an hour, the female carrying food, and finally decided that the young were already out of the nest.

ROSE-BREADED GROSBEAK (*Hedymeles ludovicianus*).—A male observed singing on the south side of Little Roan, near top at elev. 5700 ft., in deciduous growth.

INDIGO BUNTING (*Passerina cyanea*).—Fairly common along the summits, being seen or heard at eight locations.

EASTERN GOLDFINCH (*Spinus t. tristis*).—Two individuals were noted, flying along the tops on different days.

RED-EYED TOWHEE (*Pipilo e. erythrophthalmus*).—A pair dwelt on the very summit of Roan High Knob (6313 ft.) and males were seen or heard singing at four other points along the ridge.

CAROLINA JUNCO (*Junco hyemalis carolinensis*).—The most abundant bird on Roan Mountain, preferring the high ridge to the mountainside, though one was seen as low as 4000 ft. The second nesting was just under way, we having found eight nests all with 3 or 4 eggs. All nests were built on the ground except one which was 2 feet up in a small fir. Several old nests were among the roots of upturned trees. Many young of the first brood were being tended in the trees by the parents birds and their spotted breasts made them differ conspicuously from the old birds. Bread crumbs scattered about are greatly relished by the Juncos.

EASTERN VESPER SPARROW (*Pooecetes g. gramineus*).—We were pleased, and a little surprised to find one of these birds feeding on the grassy bald summit of Little Roan at elev. 5700 ft. It probably had a nest in the vicinity for conditions here were quite suitable.

MISSISSIPPI SONG SPARROW (*Melospiza melodia beata*).—Noted in five places, and usually several hundred feet below the tops, in the cut-over areas especially where there were small streams. The nest of one pair, at the spring (6000 ft.) near the lodge was found on June 22. It was tucked under the grass in the side of a gully and contained 5 eggs incubated about one week.

THE AIR CIRCUS GOES SOUTH

BY W. M. WALKER

The big day was over as far as our presence was concerned. Messrs. George Davis of Murfreesboro, George Foster of Norris, John Hay, Charles Baird and the writer of Knoxville, were driving towards Nashville and homeward on the Dickerson Pike. Reluctantly, we had bid farewell to the members of the T.O.S. and K.O.S. who had attended the joint Fall Field Day meeting of October 18th, near the Kentucky state line.

Conversation in the automobile had been confined mainly to ornithological subjects such as banding, collecting, field studies, etc. I also was indulging in a little study—not of birds, but of the people in the car. And the most prominent activity was that constant searching of the road-side, the wood and fields, and even the distant sky-line. It wasn't unusual to have the conversation interrupted with "What was that?" or "Look over those woods!" and after the interruption the conversation resumed the original trend. But always that constant search continued.

We had passed through Goodlettsville proper and were near the school building when someone said, "Look to the left!" There, above the distant horizon, were two squadrons of black "specks" which emerged into one big group before the nearby hill obscured our view. Geese—that was the first guess, although we had no definite clues. Thanks to the sympathetic driving of Mr. Hay we soon had stopped off the pavement on top of a hill. A hurried scramble and the five of us watched the heterogeneous formation assume an irregular wave that slowly made a straight line at right angles to the line of flight. And then before the line was perfected, it began to bow in the middle until the formation became an immense arc.

As the glasses became focused on the birds there were exclamations of "Look at the white ones," "Look at the flashes of black wing tips," "Snow Geese," "Blue Geese," and "Boy, what a sight!" We became aware that the birds were coming closer, that they would cross our path on up ahead and then we hurried back into the car to match speed the best we could. Excitement ran high when congested traffic slowed us down. The geese gradually gained but we could see that their projected flight would again bring them near the highway some distance ahead. Even now, with the unaided eye, we could differentiate the white and dusky birds, we could see the wing beats of the individuals, we could hear the honking above the noise of the Sunday traffic.

Suddenly the geese noticeably changed their course, veering away. While we were counting them, George Foster noticed some with white head and neck. There at the back end of the V were some dusky birds with white heads. Formations were made and broken with regularity. At one time they flew four Vs in tandem. Truly, this was "flying circus" that few people witness. Our next thought was to find a side road and endeavor to get nearer again. Full speed ahead this time with Old Hickory Boulevard as our goal. We rapidly outdistanced our quarry and took up a position a quarter to a half mile off the main highway. The location was perfect, the sun was to our back, the geese flying in a one-sided V with the long side quite irregular, were at a height of less than one thousand feet. On they came

with the slow, deeply arched wing-beat, the sun shining brightly against their glistening feathers; directly over us they came, flying slightly south of the sun.

Finally we assembled our observations. Five counts ranged from seventy-four to seventy-six, of which number five were adult Blue Geese, twenty-nine were adult Snow Geese and the remainder could have been immature Blue Geese or White-Fronted Geese. None of us could definitely identify them as the White-fronted, therefore we concluded the immature were the Snow and Blue. The voice of the birds was higher pitched than the honk of the Canada Goose. Perhaps the "lady geese" in the flock were having a Sunday afternoon social or were exchanging comments on the attention they had attracted from those curiosity seekers on the road below.

The excitement was over, our luck had been perfect, and we voted the day a huge success.

KNOXVILLE, TENN., Oct., 1936.

NOTE: Mr. Walker writes later that it was about 3:40 P.M. when they saw the flock of geese. Apparently Dr. Pickering saw the same flock a few minutes before at Clarksville, about 40 miles northwest and his observation follows.—EDITOR.

GEESE AT CLARKSVILLE: While afield on Oct. 18 near Clarksville, at about 3 P.M., I heard the honking of geese overhead and counting as well as I could I set the flock down on my list as 75. I at first supposed they were Canada Geese but as soon as I focused my glasses on them I noted that many were white with black tips on their wings and realized that they were Snow Geese. They flew "into" the sun about this time and I was unable to determine if there were also Blue Geese among them. They made quite a noise as they flew.—CHAS. F. PICKERING, Clarksville.

At Murfreesboro, Mr. Todd reports many flocks of geese passing south the last ten days in October and on the night of Oct. 29 several were killed near there from a passing flock. Two of those he saw later were Blue Geese, an immature and an adult. Mr. Dan Gray of Mt. Pleasant, reports that a small flock of Blue and Snow Geese stayed for a time on the Napier Lake near Columbia, in October. At Corinth, Miss., Mr. B. R. Warriner writes that on Oct. 15, at 8 P.M., he watched a flock of about 75 geese fly low over the city. The street lights and signs showed their white plumage clearly against the dark clouds beyond and he estimated them to be flying at about 300 feet. They appeared to be all Snow Geese. He says the heaviest flight of Canada Geese in years passed over in late October. In addition to the above, there were many other reports of "wild geese" passing over Middle Tennessee.—EDITOR.

OUR BIRD BANDERS: The U. S. Biological Survey has just published a list of 300 of its co-operators who have been most active in banding during the past year. In this national list the T. O. S. will be rather proud to hear that Mr. Ben B. Coffey of Memphis ranks fourth and Mrs. Amelia Laskey ranks seventeenth. The bulk of Mr. Coffey's 7553 bands were placed on roosting Chimney Swifts and nestling herons while Mrs. Laskey's were placed on a large variety of "home birds" trapped steadily through the year. A lot of time and effort have been expended by these co-operators but they are being well rewarded by the interesting information they are obtaining.

THE CAROLINA JUNCO IN NORTHEASTERN TENNESSEE

By BRUCE P. TYLER

The "Snowbird" of our southern mountains, (*Junco hyemalis carolinensis*), so closely resembles the more northerly ranging sub-species, the Slate-colored Junco (*Junco hyemalis hyemalis*), that differentiation by sight in the field is almost impossible without recourse to trapping or collecting specimens. The Carolina Junco is slightly larger than the Slate-colored Junco, its bill is somewhat paler and its back lacks the brownish wash of the latter. Likely extensive observation of the birds themselves would prove the positive identification between the two forms in the field to be extremely difficult.

As to their habits, however, the line of demarcation between the northern and the southern forms is very marked and with such varying habits minute differences are bound to appear. As stated above, the mountain loving Carolina Junco acquires slightly more size than its progenitor and this is true even of the genus homo. Men born and reared in our mountains surely excel in stature, so why not the birds? The Slate-colored Junco breeds north to Alaska, and winters to our Gulf Coast, but the Carolina Junco restricts its migration, as far as latitude is concerned, and confines its year-round habitat to the vicinity of the high Southern Appalachians. It is as common in summer in the higher mountains as the American Robin is in the lowlands. Leaving the high mountains, where it breeds from 4,000 feet above sea level and upwards, it descends to the mountain base and the adjacent river valleys to spend the winter. At Johnson City it arrives about November first and departs about April first, depending on variations in weather conditions to a limited extent. We have in this subspecies a "vertical migrant," nesting in the upper reaches of the Transition Zone and in the Canadian Zone and in the Canadian Zone and wintering, within a few miles, in the lower reaches of the Transition Zone and the upper reaches of the Upper Austral Zone, an innovation in avian migration.

The Carolina Junco raises two or more broods each year. The first nesting begins about April 15th, the second begins about June first to fifteenth, and a few nest to August first. The nest is usually placed on the ground under an overhanging bank, alongside the moss hummocks in the open grass-covered fields, among the roots of upturned trees, and, occasionally, in small balsam trees about two or three feet above the ground. The nest is well built of small roots, moss and grass, lined with finer material, occasionally hair, mosses, or wool. On another page will be found an illustration of a typical nest and eggs, together with a Junco incubating upon another nest. On the page following are shown typical habitats on top of Roan Mountain at an altitude of about 6,000 feet. The first clutch is composed of four eggs. I have seen only one clutch of five. The second nesting may show many nests containing three eggs, but the normal number is four.

The eggs are extremely variable in size, color and markings. The accompanying illustration (a) shows an assembly of fourteen eggs from various nests. The variation is evident at a glance and applies not only to the markings but to the shape and size. The fourteen eggs measure in inches as follows: .84 x .58, .83 x .64, .76 x .60, .83 x .61, .78 x .61, .80 x .60,

.78 x .60, .86 x .62, .75 x .58, .83 x .56, .83 x .60, .78 x .63, .82 x .62 and .82 x .59, making an average of .81 x .63. In the other illustration (b) the fourteen eggs are arranged to show the wreaths and markings on the butts of the eggs, and discloses the fact that the eggs may not only vary in size, but to an extensive degree, in markings. With the exception of the Song Sparrow, the markings on the eggs of the Carolina Junco are more variable than any of our local species.

A most striking illustration of variation may be seen by comparing the two clutches illustrated. The clutch of five (c) measure: .80 x .64, .82 x .63, .83 x .64, .84 x .62, and .81 x .62, average, .82 x .63. The clutch of four (d) measure: .83 x .59, .82 x .58, .82 x .57, and .84 x .59, average .83 x .58. In addition to the variation in size, these two clutches illustrate splendidly the variation in markings and color of the shell. In the clutch of five, we find a background of very pale azure green, spotted with reddish brown, quite evenly distributed, but in the clutch of four, we observe a background cream-colored with heavy wreaths of brown and the rest of the egg nearly clear of markings. I am indebted to my colleague, Mr. Robert Barton Lyle, for measurements and eggs from which the illustrations were made.

This little Junco is the friendliest of birds. If you camp in his front yard, he will welcome you with his song and make you happy with his presence, as he comes to eat the crumbs that fall from your board. In my trips to the mountains I always see to it that abundant food is made available for them. Low temperatures do not seem to harm or dull the ardor of the Junco. It may remain late on the mountain or frequent barns or fodder shocks on the slopes where food is available. It is reported to me, and I doubt it not, that the Junco will even enter houses in winter in search of food. A great eater of weed seed, this bird is of inestimable value to the farmer. Altogether, a loving, trusting little friend.

A great thrill comes to an ornithologist, camped among the balsams of our mountains, when he awakens from sleep at peep-of-day and hears the carol of the Juncos, plaintive, sweet and in volume, the morning song of thanksgiving rises from the mountain top, and if one has camped on Roan Mountain and has gone to the summit to view the sunrise, in its majesty, and combines the silent splendor of the glowing East with the praising carol of the Juncos, there will surely be a thrill that will last a lifetime.

JOHNSTON CITY, TENN., Nov., 1936.

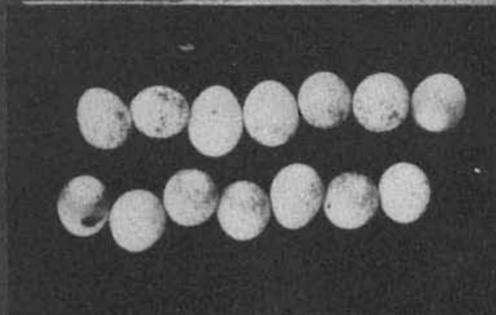


The U. S. Biological Survey is compiling for publication a list of all the local names which are applied to our common birds; for example, the Towhee is often called "Chewink," and "Ground Robin." Readers are invited to send to the Survey a list of birds of their locality for which other than the proper name is applied locally.

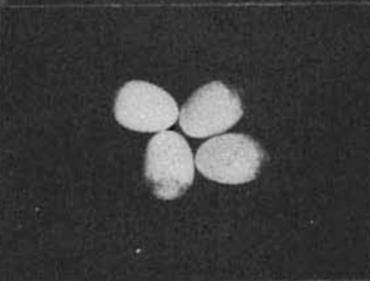
OUR ILLUSTRATIONS: On the opposite page is shown a nest of the Carolina Junco on Roan Mountain; alongside is a Junco on its nest. The next two pages show habitats of Juncos and other birds on Roan Mountain and illustrate the papers by Messrs. Tyler and Ganier. The groups of Junco eggs shown are described by Mr. Tyler. The photo of the Mountain Vireo on its nest, illustrate the paper by Dr. Powers on page 95. On the page following, are shown some informal "snaps" at our T. O. S. members afield.

*Carolina Junco
nest and eggs*





a
b
c
d



Roan Mountain



Mountain Vireo and nest.



The Big Meadow - Roan Mtn.



1



2



3



4



5



6

SOME "SNAPS" OF T.O.S. MEMBERS AFIELD.

No. (1)-Some of the "Roan Mountaineers" in the open beech woods on Roan Mtn; see page 84 of this issue.- (2) On Spring Field Day near Nashville; Messrs Foster, Bamberg, Murchy, Todd, Glebsch, Pickering and Mrs Bamberg appear to be questioning someone's identification.- (3) The Cliff Swallow "expedition" at Dover, Tenn., see p. 29 of June issue.- (4) Ben Coffey, et al, after shorebirds in the muddy mud of Mud Lake; see p. 61 of Sept. issue.- (5) and (6) Fall Field Day; Dr Vaughn is pouring a cup of his famous coffee for Miss Dean while Messrs Monk and Robins "stand by", and (right) Tenn. and Kentucky members emerging from an inspection of the historic Cheek's cavern; at the center are T.O.S. founder members A. C. Webb and Dixon Merritt.

THE ATTACHMENT OF A MOUNTAIN VIREO TO ITS NEST

BY EDWIN B. POWERS

On May 9 (1936) our class in ornithology was on a field trip in the Smoky Mountains National Park. At high noon when walking through the forested lot of the Appalachian Club grounds I observed a male Mountain Solitary Vireo with food in its mouth. I followed the bird very closely and it soon deposited the food in what I presumed was a hungry mouth of a young bird in its nest. To my surprise, on closer observation I discovered that the recipient was the incubating female. The nest was that which is characteristic of this species of vireo, placed hanging between the forks of a small holly tree limb declining about thirty degrees. It was a most beautiful nest with the entire outside surface covered with the webbed egg cases of spiders. The nest was near but not in the forest edge. It was about ten feet above the ground level but hung over the side of a shallow ravine which made it about twelve feet above the ground beneath.

The first marvel was how this small bird was able to seek out and secure so many of the discarded spider egg cases and build a nest so beautiful. After admiring the nest for some minutes, with only the head of the bird with the white throat and stripes above and around the eyes visible, I called Mr. Homer Mumaw, the photographer of the class, to make a picture of the nest and bird.

The second marvel was that the bird was not disturbed by the maneuvers made to take the picture. We first photographed the bird at a distance of from ten to twelve feet, not realizing what a surprising demonstration we were soon to witness of the bird's fearlessness. Pulling the limb down to within three feet, several photographs were taken without the bird showing any sign of disturbance. Two of these photos, which are reproduced on page 93, show the beautiful construction of the suspended nest and the fearless parent bird sitting upon it.

When the finger was placed within reach of the bird, there was no disposition shown to peck. It was then decided to see how many eggs there were in the nest. Mr. Mumaw reached over and lifted the mother bird up and, sure enough, there were four creamy white eggs marked with a few scattering black specks. After the bird was replaced on the nest the class was called and all gathered within arms reach of the nest. After hearing the story, they were curious to see the eggs. This time when an attempt was made to lift the mother bird off her nest she grabbed the bottom of the nest with her feet and clung on. During this time I had stood off thinking perhaps an additional person would frighten the bird and a study of the bird on the nest could not be made by the class.

When I came up after they had made their observations, I suspect that I showed an expression of surprise at their story. To prove that their story was on the level, a member of the class stroked the bird twice from the top of its head to the base of the tail in something of the manner of stroking a kitten.

We let the limb of the holly tree back in place with the little blue-headed white throated bird of motherly love still sitting on the nest, incubating the four small eggs and left deeply impressed with the tenacity of the instinct of parental care.

UNIVERSITY OF TENNESSEE, KNOXVILLE, June 1936.

CHIMNEY SWIFT MIGRATION AT MEMPHIS (Continued from page 82) the chimney of the vacant building (now U. S. Rubber Co.). McCamey reported the chimney must have been very crowded or not to their liking for shortly after dark many swifts were coming back out. An hour later we had secured a ladder and covered the chimney. Next morning we trapped only 466, all that elected to remain. On Oct. 9, 1935, after a few evenings observation at the north end of uptown, we trapped near the Masonic Temple for the first time in two years, hoping to pick up some of our 1932 and 1933 birds but found only one—a 1932 swift—in over 1,300 examined.

As the 1936 season grew older we finally secured some results, banding 820 at Southwestern College, Oct. 1, with 5 foreign recoveries and 21 1935 birds and later 1,514 at Idlewild School on Oct. 8, with 4 foreign birds and 27 local 1935 returns. We stood on the roof of the school the evening before and watched about 1,750 swifts go down. Late that night we had lowered the trap, cage, and other equipment from the college tower, moved it all over and placed properly on the school chimney. At 3:30 a. m. it started to rain. During a slight lull the next morning we decided it was an all day rain, and opened up the swinging door of the trap but dropped the black oil-cloth in place in order to discourage the swifts coming out if the weather should clear off late in the evening. One of my assistants was to come back and remove it if the weather cleared earlier. (In this connection let me state that Swifts apparently will remain within the chimney when the weather becomes cold or rainy. Earlier this season when trying to outwait a rainy spell I watched some swifts attempt to go down the chimney I had covered, and the week before at Southwestern while we were first banding, a flock assembled and circled for some time, dropping on occasions below the chimney top and within reaching distance of us on the roof.) Continuing, it rained until late afternoon when many Swifts evidently slipped out due to water collecting in the canvas covering a half of the chimney and by its weight pulling the canvas away from the trap. I returned after work, saw that all was well, with a good-sized flock remaining in the chimney. Shortly afterwards a few Swifts began to twitter overhead and a flock gradually assembled. Making wide circles, occasionally they would swing back over us. I climbed the ladder and rolled back the canvas to the chimney edge. On the other half of the chimney sat the 2'x4'x2' trap enclosure with funnel over the side and cage below. The birds came closer and closer, a few dipped undecidedly towards the trap, finally some answered our prayers and found the remaining 20"x40" opening. The flock of about 800 gradually poured in with what seemed only slightly longer pauses in the movement than normally. Next day we found that the chimney contained 1,500 birds. A rain at 7:45 a. m., just as we finished banding the first cage full of 800 and as most of our workers were leaving for school or for work, again stopped operations. It cleared later and two Scouts with flexible class schedules came back and took care of the remainder.

No swifts were seen near this school for a few nights following, then a flock of less than 100 went down one of the two chimneys on the old section of the school. The next night we covered both these chimneys but the swifts attempted to go down the same one until dark, some 15-20 minutes after they are normally down. The flock diminished in size and gradually vanished

from the vicinity. For several nights this continued, the last flock only numbering about 20. Although the flock would occasionally break away and circle wide, rarely did a Swift dip towards our trapping chimney.

One spring I covered a moderately high chimney on a lower building across an areaway from the Oliver chimney. The last flock of the fall before had used the Oliver chimney but the birds were then using this other chimney. And this particular night they persisted in dipping to within a few inches of the covered chimney until it became too dark to see them when they vanished. At such a time the flock becomes silent, the circling seems hurried as they dip lower and lower until they just clear the parapet and individuals at times almost hit you if you step out from behind the penthouse to observe them. Ignoring the larger, open chimney 20 feet distant, on this occasion they did attempt to go down a third chimney on a higher building across the street. This chimney had not been used for about two years, ever since a permanent cover had been placed over it. I did not make the attempt again that season but on other occasions I have succeeded in diverting portions of small flocks into the Oliver chimney, usually after a cold spell abated and the boiler was shut down in the Oliver building.

Where these Swifts go when they have failed to go down a roosting chimney, long after the usual time and darkness is absolute, is a question that has always intrigued me and will probably remain unanswered. Last spring a small flock uptown would circle as usual near the above two chimneys or the nearby U. S. Rubber building but about the time they should be pouring down, they would suddenly fly off out of sight, only to re-appear a few minutes later, perhaps circle low a few times, or perhaps pass by only, then repeat the performance several times until darkness swallowed them. They did not go to any of the known roosts in the area when we kept special watch on occasions. After being on the wing all day, could it be that these birds spent the night in the air, putting miles behind them in their southward flight?

The only times during two months last spring that I saw Swifts go down a flue in a normal manner were: about 90 once at the National Garage; about 1200 going down a ten-foot metal stock surmounting the brick chimney of a four-story vacant building, with smaller flocks there for about three days succeeding; and, a small flock whose members dipped in and out of a warm flue at noon on a damp, chilly day.

The most unusual sight occurred one fall night several years ago. A good-sized flock circling over a half block of four-story buildings attracted our attention. Across Second St. was a high office building and an open park. It became apparent as the minutes passed, that the Swifts were undecided about what chimney, if any, to go down (we couldn't see the roofs). As it grew dark, the Swifts got lower and lower, soon were circling entirely over the street and in the "canyon" between the facing buildings, though at times opposite the corner adjoining the park. A large number of people began watching the "bats" or "sweeps" which were now at the second floor level just over our heads. We were ready to expect anything, Swifts trying to roost on the street, in window recesses, or in park trees, but after several minutes the flock all left together. If their unknown winter home of a few weeks hence is in a region where they must roost on the vertical cliffs of

rugged canyons, then here may almost have been an advance demonstration of their necessary yet unparalleled change of roosting habit.

Swift banding at Memphis may be said to have only started. Our project of making a sizeable dent in the countless unbanded Swifts present here in one fall has been postponed to next year. It will require unlimited trapping but we hope to be ready and waiting if the opportunities do not fail us. At best, of course, we can only hope to examine a small proportion of what we estimate to be a sustained maximum, for over two weeks, of 20,000 to 25,000 Swifts going down a few Memphis chimneys each night. Though hard work, it has been very interesting. It would not have been possible without the ample help given by others, chiefly older Scouts, including Rover Scouts and many Eagles. Among others I want to express my thanks to Rutherford Gartside, Erie Henrich, and Robert Reinert who helped build the cage and the first big trap, Mrs. Coffey and Miss Alice Smith, Franklin McCamey, Fred Carney, Wendell Whittemore, Bert Powell, John Pond, John Jackson, Shelton Douglas, Henry Turner, Jack Steinkamp, George Clayton, and many others. And also to the owners and occupants of the various buildings, whose full co-operation allowed us to individualize large numbers of a very interesting and beneficial species.

MEMPHIS, TENN., Nov., 1936.

THE ROUND TABLE

THE SEASON AT MEMPHIS: In our last Summary we mentioned seeing on Sept. 11, moderate numbers of Swallows out over the river for a distance of at least a mile. On Oct. 18 Tree Swallows were everywhere to be seen, darting back and forth over Horn Lake. By count I arrived at an estimate for a small width paced off on the levee top, then calculated for the whole three miles of lake (200 yards wide) along the levee. Allowing for several thousand over the levee and open fields, I estimated a total of about 80,000 Tree Swallows. On the Field Day, Nov. 1, we noted eight more while on the bluff overlooking the bottoms of Grassy Lake and two additional while we were in Shelby Forest.—On the morning of Oct. 10 while walking to a Front St. garage I noticed a flock of large birds, over Confederate Park on the Mississippi, which proved to be White Pelicans, 52 in number. They circled back over Wolf River, southward over Mud Island and back over Riverside Drive and the wholesale district on the city's bluff before veering southwest and downstream. It was quite a treat to see these magnificent birds practically over a large city. Meanwhile James Vardaman and group, twelve miles south at Lakeview, also found Pelicans; about 30 minutes after I recorded the above flock, a similar flock appeared over Mud Lake there, making a total of 150 which then moved southward. Other interesting records by this party were Bald Eagle, 2 and Osprey, 2.—Harold Elphinstone at Camp Currier (Eudora, Miss.) recorded on Oct. 24: Blue-winged Teal, 50; Canada Goose, 1; Blackburnian Warbler, a pair; Tree Swallow, 8; Barn Swallow, 1; Phoebe, 4; Acadian Flycatcher, 3; and on the 25th: Pied-billed Grebe, 2; Marsh Hawk, 1; and Fox Sparrow, 2. At the same place on Nov. 7-8, Wallace recorded a fair list with nothing unusual except possibly 75

unidentified geese.—The Fall field day was held Nov. 1. We met at the wharf where we viewed some 30 Ring-billed Gulls and then proceeded north to the new Shelby Forest. A flock of 30 Bluebirds were seen on highway 51 just north of town. Bird life was quiet at the Forest although small restless flocks of Goldfinch totaled about 100. Among the 40 species noted were Purple Finch, 7; Phoebe, 2; and Cedar Waxwing, 25.—On Nov. 15 about 2,000 ducks were feeding and resting on Mud Lake, remaining on the far side so that identification was difficult. The greater part were Lesser Scaup and Ring-necked Ducks, and a few were Mallards with more of this species probable but not actually identified. Mrs. Coffey and Miss Smith observed two Canada Geese going over.—BEN B. COFFEY, Memphis.

WILLOW THRUSH AT MEMPHIS: On about April 16, 1936, a dead thrush was found on a local lawn by a Scout. It was turned over to Eagle Scout John Pond who made a study skin of it was then forwarded by the writer to Mr. A. F. Ganier for his Tennessee collection. Its identity was established as a Willow Thrush (*Hylocichla fuscescens salicicola*) by Dr. H. C. Oberholser; thus adding a new sub-species to our State list. The Veery, or eastern form, is believed to have been a fairly common transient here the last two springs—the birds observed were not so dark brown in color as this specimen. However, the status of the two forms in the lower Mississippi valley is not definitely known. Baerg ("Birds of Arkansas" 1931) says of the Willow Thrush "it is a common migrant . . . observed at Helena" and does not list the Veery. For Alabama (Howell, 1924) and Louisiana (Dept. of Conservation, 1931) the Veery is described as a fairly common transient but the Willow Thrush is not listed. Andrew A. Allison collected one of the latter race in Amite County, Miss., on Sept. 18, 1897 (*Auk* XVII, 1900, p. 297).—BEN B. COFFEY, Memphis.

EGRETS DROWNED BY STORM: On September 3, during the course of a stay at Reelfoot Lake, the writer witnessed the fatal or near-fatal effects of a storm upon some American Egrets. Just before dark on the previous afternoon a heavy thunderstorm came up followed by a rain of nearly two inches. Broken limbs and some trees blown down next morning attested the severity of the wind. In company with Miss Evelyn Schneider and Mr. Wendell Whittemore, the writer rowed across the lower end of the lake next morning to Grassy Bend. Upon reaching a place where a fringe of live cypress grew out into the water, we were surprised to see the white head and a portion of the neck of an American Egret protruding from the water. Rowing closer, we grasped the bird by the bill and lifted it into the boat, a very much water-logged creature, though it had energy enough to peck at us. Looking about, we found six more in the same predicament except that one of these had already succumbed. The birds had evidently been blown out of the trees late in the evening or the night before and there being no land near, were unable to wade out of the water which was several feet deep. They would doubtless have drowned and this fate may have befallen many of the other Egrets of which there were thousands about the lake. We carried our rescued birds to the Biological Station grounds and there released them. They would not eat small frogs we caught for them and disgorged such food when forcibly fed. The next morning one had regained sufficient strength to fly away, three were able to walk about and one was dead. Eventually, however, the three remaining ones died, perhaps because of weakness brought on by their refusal to eat.—FLOYD S. CARPENTER, Louisville, Ky.

A TURTLE CAPTURES A COOT: On April 21st, on Lake Andrew Jackson near Knoxville, the writer and George Foster were watching about 30 Coots and after a time observed a lone individual among the willows that seemed to be in trouble. We judged it had become caught in a tangle of something below the surface and since the water was shallow we waded out to the rescue. The bird seemed quite exhausted and put up but a feeble struggle to escape, during which time we could see that its right leg was held outstretched toward the bottom. Raising the bird above the water we found a small snapping turtle, about four and a half inches across, holding the foot in its mouth. The Coot had twisted its leg until the joint was torn apart and only the sinews were holding it on. A moment later the turtle released its hold and the bird fell back into the water and swam away as best it could. We surmised that the turtle would in the end have gotten not only the foot but the bird as well.—W. M. WALKER, Knoxville.

A CROW ATTACKS A TURTLE: Last May at Reelfoot Lake, while I was walking along the bayou south of Walnut Log lodge, a Crow flew up in much confusion, about ten steps ahead of me. I noticed blood all over his beak, so hurried around some bushes to see what he had been up to. There on the ground was a live turtle, about seven inches long, lying on his back and kicking vigorously. The skin between his body and the left front leg had been torn open and the tissues beneath were flooded with blood. Apparently the Crow had not had time to do much damage because when I turned the turtle over he struck out for the water at a rate that was indeed high for a turtle, using all four legs very effectively.—CLARENCE E. MOORE, Memphis.

NOTE: With Crows eating live turtles and turtles capturing live Coots, it looks like a game of "nip and tuck" in the animal kingdom.—EDITOR.

THE SEASON AT CLARKSVILLE: The Short-billed Marsh Wrens, mentioned in last issue, were found in the same marsh as late as Nov. 4, when 4 were seen there.—About mid-September a Red-legged Black Duck joined the flock of tame Mallards at the Cave lake and is unsuspecting of passersby.—A Little Blue Heron was found on Oct. 18, a late date, by Lamar Armstrong on West Fork Creek.—The last Solitary Sandpiper observed was found on Oct. 6 and over the same pond a Greater Yellowlegs was recorded on Oct. 20.—On Sept. 24, Dr. Pickering and a companion discovered a White-rumped Sandpiper in company with 2 Least Sandpipers at the edge of a small pond. This is considered a rare species in Tennessee so Dr. Pickering flushed the bird a number of times in order to check the clear white band across base of tail.—Our 159th species recorded for Montgomery Co. during 1936, was a Black-crowned Night Heron, brought to town on Nov. 21. We released him on the river bank in hopes he would survive his injuries.—The last Green Herons seen locally were on Sept. 28; on a 25-mile canoe trip down Red River, on Oct. 3 and 4, not one of these herons was seen.—Chimney Swifts were noted roosting here in large numbers up to Oct. 5 but the following evening they had gone; however on Oct. 12, nine were observed at the roosting chimney but that was the last date.—Purple Martins roosted in trees on the city streets in considerable numbers in late August. On the 29th they were noted lining the phone wires below town, along with Barn, Bank and Rough-winged Swallows. Some other

"last" dates were: Black-billed Cuckoo, Oct. 10; Nighthawk numerous on Oct. 10; Ruby-throated Hummer Oct. 6; Catbird Oct. 20 and Scarlet Tanager Oct. 12.—Of the fall warbler transients the Black-throated Green and the Tennessee were most abundant; Blackburnian, Chestnut-sided, Bay-breasted and Ovenbirds were common, while the Nashville, Wilson's and Canada Warblers were rated as fairly common.—We regret to say that Neblett's 25-acre slough, 10 miles east of town and in the Cumberland River bottoms has been drained as a land reclamation project. We shall regret the passing of this fine habitat for certain species of swamp loving birds.—ALFRED CLEBSCH, SR., Clarksville.

THE WINTER STATUS OF CERTAIN BIRDS IN TENNESSEE:

Among other bird problems to be studied is the status of certain birds which winter in Tennessee irregularly and locally. The writer will mention a few of these species in the hope that all reliable data may be assembled and more data be added by careful observations during this and in following winters.

The Purple Finch was found commonly around Nashville in the years 1913-17. During the severe winter of 1917-18, they were discovered frozen in some numbers in Shelby Park and in other localities, along with other species. Since the writer returned from France in the fall of 1919, after missing the winters of 1917-18 and 1918-19, he has found these finches more limited in numbers and in areas. These birds are so like sparrows in appearance and in habits that they can be easily overlooked in the underbrush and in elm trees where they feed with Goldfinches and with sparrows. They utter a characteristic cluck while feeding and while flying which bird observers should learn and listen for at all time in winter. The Pine Siskin has been reported occasionally in late winter and in early spring in Tennessee. In color, in notes, and in actions they can easily be distinguished from Goldfinches by a careful observer and all groups supposed to be the latter should be scanned for possible Siskin. The blackbird family has several species which are recorded as wintering in parts of Kentucky and even north of the Ohio. Redwings, Cowbirds and Grackles are rarely seen in December and early January around Nashville and more records would be welcome. The Robin, too, seems to leave the Nashville area during the same period but returns as a rule before January is past. December records for the Robin are of special value. The Chipping Sparrow, the Brown Thrasher and the Ruby-crowned Kinglet are rare in winter but careful search may increase the winter records we already have. The Redhead Woodpecker is more often found but records for him are needed in Middle and East Tennessee. Bird students in the Nashville area lament the recent scarcity of the cheerful White-breasted Nuthatch. In 1912-17 this bird was fairly common in suitable localities. Now he has practically disappeared in this vicinity. The writer would be pleased to get information as to the status of this species in other sections of the State. With the passing years new habitats have been found for the Migrant Shrike both in nesting and wintering. Still this bird is rare in Middle and East Tennessee and all records should be carefully made as to time and place and sent in to *The Migrant*. Cedar Waxwings, Bewicks Wrens, Phoebes, Pipets and Hermit Thrushes should also be carefully sought and recorded, for data on these species during the winter months is far from satisfactory.—GEORGE R. MAYFIELD, Nashville.

AUGUST AND SEPTEMBER NESTS OF 1936: During these two months, nestlings were banded from fourteen nests at my home, near substations, and in Warner Park, with the cooperation of Mrs. E. C. Tompkins, Mr. E. D. Schreiber, Leo Rippey, Jr., William Simpson, and Steve Lawrence. The details are as follows: Mourning Dove (2 nests) one nestling banded Aug. 18; two nestlings still being brooded Sept. 1. Yellow billed Cuckoo. (1 nest) two nestlings fledged Sept. 12. Mockingbird (3 nests) three nestlings in each about ready to leave on Aug. 2, Aug. 6 and Aug. 10 respectively. Bluebird (3 nest boxes) three young in one and one in each of other two boxes were banded Aug. 5 but not ready to fledge for several days. Cardinal (3 nests) two young were banded Aug. 6; one on Aug. 8; and two on Sept. 2. The last mentioned were still small. On July 27th, three young Cardinals were banded from their nest. Field Sparrow (2 nests) three young were still in the nest Aug. 1, and on Aug. 13 a juvenile that had just fledged was caught by hand.—AMELIA R. LASKEY, Nashville.

BAIRD'S SANDPIPER AT CARYVILLE (TENN.) LAKE: On August 27, Louis Kalter and the writer saw on the Caryville Lake, a bird we believed to be a Baird's Sandpiper (*Pisobia bairdi*). The following, written while the bird was in the field of our glasses, is copied from Kalter's notebook: "One bird seen feeding alone, and in company with Semipalmated Plover, on mud flats of the Caryville Lake at 3 P.M. Description: Larger than Least and Semipalmated Sandpipers feeding nearby, smaller than Pectoral and of same dorso-ventral size as Semipalmated Plover, although slightly longer than the latter. Compared with the Plover while both were in field of binoculars at same time with the Baird's almost in line with the Plover: legs blackish, crown finely streaked, breast band complete, buffy, streaked with gray-fuscous, throat lighter, back has scaly appearance, buffy with black feather spots rimmed with the buffy, center tail feathers fuscous, flanked by shorter, apparently white or whitish feathers. Flight not very erratic, accompanied by wavering whistle, described by Foster as a "roll;" waded belly-deep and also went 15 yards away from water's edge with plover. Picked at something on green sprouting herb that was half-submerged near shore." On August 30 a return trip to the lake was made and at this time the bird was seen feeding 50 yards from the water's edge and allowed approach within 15 feet. On September 1, Franklin McCamey and the writer saw two of these birds in the same place and on September 9, one specimen was collected and when sent to the Biological Survey, it was returned with our identification verified.—GEORGE FOSTER, JR., Norris, Tenn.

ERRATA—In my notes published in last issue, line 20, the list should have read: 1 Sora, 1 Semipalmated Sandpiper, about 2000 Cliff Swallows.—G. FOSTER.

NOTES FROM KNOXVILLE: The fall migration began early with flocks of Blue-wing Teal on Norris Lake the middle of September. The warblers were fairly plentiful both the week before and after September twentieth. On that day, the Fall Census Day at Island Home, thirteen species of Warblers and four of Vireos were recorded. The Warbling Vireo was not found although we know a pair were summer residents of the territory covered by the census.—The ducks, geese, and other water birds at Norris

Lake were fairly common as to species but not in numbers. As a rule those that did stop on the lake did so for only a couple of days at a time, as shown by several check-ups. A trip on Saturday followed by one the next day often revealed a new set of birds altogether. Occasionally a small flock would stay about a week. Ducks have been as plentiful on the river this fall as in years past. Wood Duck are reported more plentiful. A Blue Goose was killed on the Tennessee River near Knoxville Nov. 21; I did not see the bird but the description was unmistakable.—A few late dates are here given as last records for local migrants; Indigo Bunting 1 on Oct 4; Chimney Swift 3 on Oct. 13; Chipping Sparrow 4 on Oct. 24, and Spotted Sandpiper 1 on Oct. 31.—At Norris Lake, on Nov. 8, there were large flocks of Cedar Waxwings and also of Redwinged Blackbirds; in some cases we found mixed flocks of these two species. The estimate for the day for these birds was between 4000 and 5000.—Other large flocks of birds that have been reported are: 2000 Crows at a roost Oct, 10, none a week later; 1000 to 1200 Starling on Nov. 15; 1000 Grackle at Sevierville, Tennessee, on Oct. 25, and a flock of an estimated 8000 in East Knoxville on Oct. 29 and 30. This group had dwindled to 18 birds on Oct. 31 and the last few seen were 11 on Nov. 9.—W. M. WALKER, Knoxville.

THE RED-COCKADED WOODPECKER IN BLOUNT COUNTY, TENNESSEE: In view of the scarcity of published records of the Red-Cockaded Woodpecker (*Dryobates borealis*) for the State of Tennessee, it seems well to record five individuals seen in April, 1935, on lands which will probably be included in Great Smoky Mountains National Park. On April 16, 1935, while walking along highway 72 near Revenue Hill, about five miles southeast of Calderwood, Tennessee, I heard an unusual bird call that reminded me of the call made by young hungry robins. I finally succeeded in seeing the bird that was making the call. It seemed to be shy for it never remained on a tree very long and tried to keep on the opposite side of the tree from me. I was positive that the bird was a woodpecker and one that I was not familiar with, so I did not make a decision until I had consulted pictures and Chapman's Handbook, *Birds of Eastern North America*. The following day, April 17, I returned to the vicinity. As soon as I entered the pine woods, I saw two of these birds which seemed to be mates as they kept close together. At times, both fed on the same tree. A characteristic of the species, that I noticed is that of feeding near the tops of the trees, quite unlike the Downy and Hairy Woodpeckers. The several stalkings enabled me to see the markings of the Red-cockaded Woodpecker. Several days later I looked for these birds but failed to find them, but in all probability they nested in the vicinity.

I have another record of this species from Cane Gap, April 19. This site is several miles distant from the site from which they were first recorded. The elevation of this place is approximately 1700 feet. Still another record of the species is that of a bird seen April 29, on Andy McCully Ridge near Rabbit Creek, at an altitude of 2,210 feet.

These are my only records of the species from the Great Smoky Mountains National Park during a year of field work. All the records are from Blount County, Tenn., and in that section of the park which is most uniformly covered with pine trees.—RAYMOND J. FLEETWOOD, (Former Naturalist Assistant, Great Smoky Mountains National Park), Kurtz, Indiana.

MEETINGS OF LOCAL CHAPTERS

THE NASHVILLE CHAPTER will hold meetings during the first quarter of 1936, on Monday evenings, as follows: Jan. 11, 25, Feb. 8, 22, March 8 and 22. Its Christmas census has been set for Sunday, Dec. 27. B. H. Abernathy (Hobb's Road) is secretary. Meetings are at 7:30 P.M. at Peabody College, in the main or Social-Religious Building.

THE KNOXVILLE CHAPTER will hold its evening meetings on Jan. 13, Feb. 3 and March 3; field trips are scheduled for Jan. 17, Feb. 21 and March 21. Officers were recently elected, as follows: president, Dr. Earl Henry, vice-pres., George Foster, curator, S. A. Ogden, and secy.-treas., Mrs. Frank Leonhard (203 Elmwood Ave.)

THE MEMPHIS CHAPTER is scheduled to meet on Jan. 4, 18, Feb. 1, 15, March 1, 15 and 29. The meetings are held Monday evenings at the Museum of Natural History and Art (Pink Palace). The main Xmas census is set for Dec. 27. Their officers are president, Dr. C. E. Moore, vice-pres., Dr. Cynthia C. Counce, and secy.-treas., Mrs. T. I. Klyce (Jones Road).

THE CLARKSVILLE CHAPTER will hold its meetings every other Tuesday, those of the first quarter falling on Jan. 5, 19, Feb. 2, 16, March 1 and 15. The Xmas census will be taken on Dec. 20. Alfred Clebsch, Sr., is secy.-treas.

THE MURFREESBORO CHAPTER, H. O. Todd, secretary, will take their Xmas census on Dec. 27 and plan regular evening meetings during Jan., Feb., March, etc.

THE BLUEGRASS CHAPTER was organized on November 8 at a meeting held near Columbia at the camp of Dr. George Williamson. This chapter will sponsor rallies of our members who are located at Columbia, Pulaski, Mt. Pleasant, Franklin and nearby points. A field trip on the adjacent estate of Dr. O. J. Porter occupied most of the morning of Nov. 8 and was attended by about sixteen members, including several who had motored down from Nashville. After an excellent luncheon, served by Dr. Williamson, the organization was effected and the following officers were named: president, Dan R. Gray of Mt. Pleasant and secretary, Mrs. Sam H. Rogers of Pulaski. A mid-winter bird census, to be held at Columbia on Jan. 3, was decided on. The Bluegrass Chapter will also hold spring and fall field days in due season.

The Annual Fall Field Day of the T.O.S. took the shape of a joint meeting with the Kentucky Ornithological Society. The date was Oct. 18 and the site was the crossing of Red River and the old Louisville Pike, 5 miles south of the Kentucky line and 31 miles from Nashville. Here also is the historic old Cheek's tavern, built of logs, and the cave, described by Alexander Wilson on his visit here in 1810. Nearly 90 people attended the meeting, including a number from various distant points in the State and Kentucky. Perfect weather, congenial spirits, excellent territory for the field work during which 62 species of birds were listed, and a fine meal served by the lunch committee, made the day one of the very best of its kind in our history.

A tabulation of the Xmas census will be published in our next issue.

The Georgia Ornithological Society was organized at a meeting held at Atlanta on December 13. *The Oriole*, published quarterly, will be its organ.

THE MIGRANT

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*It has been said that the measure of an ornithologist is his willingness and
ability to make printed record of his studies and findings.*

EDITORIAL CHAT

Mr. Coffey's article, on the first page, constitutes a valuable chapter toward unraveling the mystery of Chimney Swift migration, possibly the most intriguing problem now before ornithologists. In order to gather the information he is giving us, the author and his helpers have put in hundreds of hours of work, often under trying circumstances. We shall look forward to his next report.

Feeding shelves for our wintering birds should be put in trim before severe winter weather arrives. Birds about our homes frequently have but scanty territory from which to gather natural food and if not fed, will often leave. For Cardinals, Towhees and native Sparrows, sunflower seed and grains are most favored; the Woodpeckers, Titmice and Chickadees are partial to cracked nuts and suet, while the Mockingbird, Robin and Hermit Thrush favor fruits, raw or stewed, and boiled potatoes of either kind. Heads from staghorn sumac, sorghum, grohoma, millet, etc., are convenient foods to keep on the shelf.

On inquiry, we gather that our members are keeping their files of *The Migrant* and that very few copies go into the wastebaskets with the newspapers. It is with a feeling of satisfaction then to know that our efforts serve more than a passing purpose and that we are building a literature that will endure and be of value for reference in the years to come.

This issue closes our seventh volume and add 106 more pages of printed information on the birds of Tennessee, with 36 photographic reproductions. Main articles and Round-table items number 91 and there are 45 news notes in addition. These have been contributed by 46 of our members. The Editor, on behalf of the Society and the Staff, wishes to thank these contributors for the time they have taken to write up their experiences for the pleasure and information of their fellow members. To our members and subscribers we are all indebted for the financial support that enables us to pay the printer and the postman. By our co-operative efforts we are really "getting somewhere."

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