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THE MIGRANT

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Number 1

WATER FOWL IN EAST TENNESSEE

By ROBERT J. DUNBAR

East Tennessee lies midway between the Mississippi and Atlantic flyways and is located on a cross route between the two. According to Francis H. Kortright in his book, "The Ducks, Geese and Swans of North America," this tributary route across East Tennessee is really a branch of the Mississippi flyway, that apparently leaves the parent stream in the general vicinity of St. Louis, Missouri, and joins the Atlantic flyway on the coast of South Carolina. A glance at the map of the United States will show that a point about halfway between Knoxville and Chattanooga, Tennessee, not only is on a direct line between St. Louis, Missouri, and Charleston, South Carolina, but is also about halfway between the two terminal points of the tributary flyway.

As reported by A. K. Thurmond in the March-April 1948 issue of "The Tennessee Conservationist," migratory water fowl once followed the Tennessee River in their cross movements from the Mississippi to the Atlantic flyways, for some reason this diversion in flight disappeared a good many years ago. He further explained that since the development of the Tennessee River began in 1933, conditions for water fowl in the Tennessee Valley have been improved to a considerable degree by the establishment of wildlife refuges on 115,000 acres of reservoir lands and waters.

It was a fortunate coincidence that Albert F. Ganier published "A Distributional List of the Birds of Tennessee" in 1933, the same year that the development of the Tennessee River began. This gives us a yardstick to measure the effect of the more favorable conditions, brought about by the construction of the T. V. A. reservoirs and the establishment of refuges, upon the migrating water birds and the number of individuals that winter in this section of the State.

During the fall and winter of 1947-48 the writer made weekly visits to Cove Lake at Caryville, Tennessee, which is located about 15 miles north of Clinton, Tennessee, on U. S. Route 25. Cove Lake is in a park area where hunting is prohibited. The main arm of the lake is approximately one half mile long by one third mile wide, and its water level is kept constant by a low level dam. The shore line is quite irregular, ranging from steep hillsides to low marshy ground. Excellent feeding areas for pond and river ducks extend into the grassy and marshy indentures along the north and west shores.

Because of the irregularity of the shore line, it was necessary to make the observations from at least three vantage points on the east and south

shores. While the 7x35 binoculars with coated lenses gave excellent results at the shorter distances and of birds in flight, they were inadequate for the longer distances. Here a 50 mm. prismatic telescope, with interchangeable eye pieces of 12.5, 19.5, 26 and 36 power, mounted on a tripod proved in-

Table 1

Cove Lake at Caryville, Tennessee

All observations made between 12 noon and 5:00 P. M. (about 1 hour duration)

1947 1948

Species	Date—Temperature		Number of Individuals											
	Dec. 7—40°	Dec. 14—44°	Dec. 30	Jan. 4—33°	Jan. 11—42°	Jan. 17*—24°	Jan. 24†—20°	Jan. 30†—30°	Jan. 30†—30°	Feb. 6‡—38°	Feb. 15—45°	Feb. 22—33°	Feb. 29—60°	
Horned Grebe	2	2	2	4	4	2	2	2	2	2	2	2	2	
Pied-billed Grebe	4	4	9	4	4	2	2	2	2	2	2	2	2	
Great Blue Heron	1	1	1	1	1	1	1	1	1	1	1	1	1	
Canada Goose	10	5	70	23	30	5	5	5	5	5	5	5	5	
Mallard	12	9	50	8	30	25	12	12	12	12	12	12	12	
Black Duck	15	20	50	55	36	18	60	60	60	60	60	60	60	
Gadwall	6	6	40	2	2	2	2	2	2	2	2	2	2	
Baldpate	11	10	25	6	13	2	2	2	2	2	2	2	2	
Green-winged Teal	1	1	1	1	1	1	1	1	1	1	1	1	1	
Redhead	60	70	30	18	12	8	9	9	9	9	9	9	9	
Ring-necked Duck	3	3	3	3	3	3	3	3	3	3	3	3	3	
Canvas-back	5	5	5	5	5	5	5	5	5	5	5	5	5	
Lesser Scaup Duck	2	2	2	2	2	2	2	2	2	2	2	2	2	
American Golden-eye	2	2	2	2	2	2	2	2	2	2	2	2	2	
Buttle-head	2	2	2	2	2	2	2	2	2	2	2	2	2	
Hooded Merganser	5	5	5	5	5	5	5	5	5	5	5	5	5	
American Merganser	60	70	30	18	12	8	9	9	9	9	9	9	9	
Red-breasted Merganser	3	3	3	3	3	3	3	3	3	3	3	3	3	
Coot	11	11	11	11	11	11	11	11	11	11	11	11	11	
Herring Gull	11	11	11	11	11	11	11	11	11	11	11	11	11	
Number of Species	11	11	11	11	11	11	11	11	11	11	11	11	11	
Number of Individuals	130	132	302	94	151	87	142	209	237	129	158	129	158	

* 80% of Lake Surface Frozen Over
 † 85% of Lake Surface Frozen Over
 ‡ 100% of Lake Surface Frozen Over
 § 75% of Lake Surface Frozen Over

dispensable. With such a telescope and good light, the color patterns and other identifying characteristics could be clearly seen at any point visible within the limits of the opposite shore. While the number of water birds observed was not so impressive, the

number of species was. With the exception of January 30, when Cove Lake was completely frozen over, the minimum number of species observed in any one day was seven and the maximum eleven. During the three months' observation period (December through February) twenty-one species of water birds (not to mention the Kingfisher) were recorded. Species such as the Pied-billed Grebe, Black Duck, Gadwall, Baldpate, Pintail, Green-winged Teal and Coot, reported by Ganier in 1933 to be either rare transients or rare winter residents in East Tennessee, were observed on almost every trip as indicated on Tables 1 and 2. The Hooded and American Mergansers, although not so frequently observed, were by no means rare. We may con-

Table 2
Small Pond or Lake on Oak Ridge Area, Tennessee

1948

Date—Temperature	Jan. 3—35°	Jan. 11—40°	Jan. 17*—26°	Jan. 24*—21°	Jan. 30*—32°	Feb. 6†—40°	Feb. 15—50°
Pied-billed Grebe	5	5	..	..	..	2	..
Great Blue Heron	1	1	..	..	..	..	2
Mallard .....	..	2	..	..	..	2	25
Black Duck .....	..	2	..	..	..	6	20
Pintail .....	..	..	..	..	..	..	5
Green-winged Teal .....	..	..	..	..	..	..	7
Hooded Merganser	3	12	..	..	..	5	..
American Merganser .....	..	..	..	..	..	..	6
Coot	8	15	..	..	..	12	5
Ring-billed Gull	1	..	..	..	..	..	..
Number of Species	5	6	..	..	..	5	7
Number of Individuals	18	37	..	..	..	27	70

* 100% of Lake Surface Frozen Over

† 50% of Lake Surface Frozen Over

sider most of the above-mentioned species to be fairly common if we recognize the fact that the water fowl population in the United States has reached a new low in the declining cycle and that the numbers of individuals indicated in the accompanying Tables 1 and 2 are for a small lake and pond. On the other hand, the diving ducks may be considered rare visitors, at least on the smaller lakes.

Does the Great Blue Heron winter in East Tennessee? In 1933, it was considered rare at any season of the year. This year, in addition to the records shown on Charts 1 and 2, several members of the Knoxville Chap-

ter of the T. O. S. have observed the Great Blue Heron during both the summer and winter months.

A study of Tables 1 and 2 will disclose the fact that the partial freezing over of the lake or pond surface had little or no effect upon the number of water birds present. It is noteworthy that as soon as open water reappeared after the freeze-up, the water birds returned. Presumably they took up temporary residence on the open water of the near-by rivers or larger reservoirs during the time the smaller lakes were frozen over.

There can be little doubt that there are more species of water birds now wintering in East Tennessee than there were a decade or two ago. The number of water birds wintering here may be expected to increase if the U. S. Fish and Wild Life Service, the State Conservation Department and the T. V. A. continue to work together in the development of wildlife refuges and more favorable food supplies.

106 GLENDALE LANE, OAK RIDGE, TENN.

JULY FOURTH NOTES FROM NATURAL BRIDGE, TENNESSEE

By BEN B. COFFEY, Jr.

For many years we have wanted to stray across the Tennessee River and make a list of the birds found in early summer at Natural Bridge, one of the more interesting and picturesque spots in Middle Tennessee. The opportunity did not present itself until the Independence Day holidays this year. Early June would have been preferable because at the later date we found bird activity somewhat reduced. For that reason we covered, in addition, some of the highways and back roads of north-east Wayne County. Our party spent from the late afternoon of July 4 to noon on July 6 in the area and consisted of Mrs. Coffey, Mrs. Floy Barefield, Robert Tucker, Demett Smith and the writer. On the afternoon of the 5th we were joined by Mr. and Mrs. Albert F. Ganier who drove down from Nashville.

Most of the field work was at points along the Buffalo River and en route thereto from Natural Bridge. Many areas along this small river and along Forty-Eight Creek which passes by Natural Bridge northward to join the Buffalo, were fully cultivated, but the higher ridges were covered with an oak-hickory climax forest. Wayne County is reported to be ninety percent wooded and other portions seem to support this statement. Along state highway No. 13 small scattered remnants of pine were noted among the oak and hickory but the time of day when our stops were made was not suitable for determining if this pine favored the presence of certain species.

Sixty species were recorded in the Natural Bridge-Buffalo River area and the statements below apply to that area with exceptions as noted. The more common species were the Wood Thrush, Red-eyed Vireo, Summer Tanager, Cardinal, Indigo Bunting, and Chipping Sparrow. The list ap-

pears typical for the limited environment. We were disappointed in not finding certain species, uncommon and absent from parts of West Tennessee, such as the Scarlet Tanager, Blue-winged Warbler, and Yellow Warbler. The scarcity of Prairie Warblers and Towhees was notable.

The waterbirds and birds of prey were uncommon. Around Court House Hollow lake, a small artificial pond just above the Natural Bridge, two immature Green Herons and a female Wood Duck were seen. Turkey Vultures were infrequent—up to six recorded at one time—and only two Black Vultures were seen, one being over Highway 13. A Cooper's Hawk was noted north of the Buffalo and another enroute south to Waynesboro. Along the river near Squeeze-Up Bluff a Red-tailed Hawk screamed at us intermittently and a second one for the county soared east of the highway 64-114 intersection. On the Fourth, a Broad-winged Hawk was seen just before we entered Wayne County. No owls were recorded.

Bob-white—Heard at four places.

Mourning Dove—Seen twice here; several west of Waynesboro.

Yellow-billed Cuckoo—Fairly common.

Chuck-will's-widow—Undoubtedly many did not call this late in the season. From our cabin the first night I heard one call from 7:30 to 7:35 p.m. On my awakening about 3 a.m., it or another individual called for a few minutes. From the high point of Zion Cemetery only one was heard in the surrounding countryside on the evening of the 5th.

Whip-poor-will—About midnight on the 4th I awoke to hear one call about five minutes. The next noon en route back to our cabin we found a dead male in the gravel road along a high ridge (elevation about 940 feet) and about two miles south of Natural Bridge. At dusk on the 5th Mrs. Coffey with Albert F. Ganier heard five or more calling at this point. No Chuck's were heard along the road there.

Chimney Swift—Uncommon.

Ruby-throated Hummingbird—Two were seen July 4.

Flicker—One at Squeeze-Up Bluff, July 5.

Pileated Woodpecker—Uncommon. On the 5th two near Rasbury and a family group at Salem Church. One above the Bridge on the 6th.

Red-bellied Woodpecker—Uncommon.

Red-headed Woodpecker—One at Ashland Ford, July 5th.

Downy Woodpecker—One at the Bridge on the 6th.

Kingbird—Occasional.

Crested Flycatcher—One on the 4th en route to Squeeze-Up, and one in the cabin area, July 5.

Phoebe—Fairly common. We generally found Phoebes and nests under each concrete bridge on Highway 64 from the Tennessee River to Waynesboro, but none at the latter place. Apparently two pairs were present in the resort area. A pair was seen on the river near Squeeze-Up and a nest noted on a river ledge near Salem Church. A nest on road beams of the Highway 13 bridge over the Buffalo differed from most nests in its height above the ground (30 feet) and in that it was on an all-steel bridge.

Acadian Flycatcher—Common at the Bridge and along the streams.

Wood Pewee—Common; less so in Acadian environment but more widely distributed.

Purple Martin—Uncommon—at three locations and a fourth on Highway 13.

Blue Jay—Fairly common, Squeeze-Up Bluff and upstream; no other records.

Crow—Common.

Carolina Chickadee—Common.

Tufted Titmouse—Fairly common; in numbers at Squeeze-Up.

White-breasted Nuthatch—Two noted at Squeeze-Up Bluff, July 5.

Bewick's Wren—Three heard singing near Ashland, July 4 and 5. Also heard from the tower, junction of highways 13 and 48, on July 5.

Carolina Wren—Common.

Mockingbird—Along roads but uncommon.

Catbird—Common along the streams.

Robin—Two upstream from Squeeze-Up, July 5.

Wood Thrush—One of the more common species, altho not in evidence in mid-day.

Bluebird—Common.

Blue-gray Gnatcatcher—Fairly common, Natural Bridge and Buffalo River.

White-eyed Vireo—Almost common.

Yellow-throated Vireo—Almost common.

Red-eyed Vireo—One of the more common species.

Black and White Warbler—Common at the two bluffs and one noted at Natural Bridge.

Prothonotary Warbler—One recorded along Highway 64 (west), July 4, two near Squeeze-Up and one at Ashland Ford on July 5.

Parula Warbler—Recorded at Natural Bridge and the two bluffs.

Cerulean Warbler—Fairly common at the above three places.

Sycamore (Yellow-throated) Warbler—Fairly common along the two streams.

Prairie Warbler—None were recorded in the Natural Bridge and Buffalo River area. Frequent stops were made July 5 along highways No. 48 (mostly north of Wayne County on a high ridge) and No. 13. Only one singer was heard, on No. 48 in Wayne County. This wooded rolling country seemed to be typical Prairie Warbler environment; the time of day (11 A.M. to noon) might have been responsible for the paucity of records. One was heard July 4 west of Waynesboro.

Louisiana Water-thrush—Fairly common in the vicinity of Buffalo River while several were at home along the ledges under the Natural Bridge.

Kentucky Warbler—Uncommonly recorded and only at Buffalo River.

(Maryland) Yellow-throat—Fairly common but not recorded at Natural Bridge itself.

Yellow-breasted Chat—Almost common; no record at Squeeze-Up.

Hooded Warbler—Fairly common, Natural Bridge and Buffalo River.

Redstart—Six were recorded July 6 at Grinder Bluff and one at Salem Church the day previous.

English Sparrow—Locally in relatively small numbers.

Meadowlark—Two seen early July 5 enroute to Squeeze-Up.

Red-wing—None here; one seen west of Waynesboro on the 4th.

Orchard Oriole—Five scattered records.

Summer Tanager—One of the more common species.

Cardinal—Very common in the Bridge-River area.

Indigo Bunting—Very common and well distributed but none in cabin area.

Goldfinch—Three casual records; Squeeze-Up, Salem Church and enroute thereto.

Towhee—Two west and one east of Waynesboro and four records there.

Chipping Sparrow—One of the more common species.

Field Sparrow—Common in the more cultivated and open areas.

672 N. BELVEDERE, MEMPHIS 7, TENNESSEE.

CONDITION OF BIRDS FOLLOWING A PROTRACTED SNOW

By ALBERT F. GANIER

A number of species of birds are found wintering commonly in Tennessee that are not so found in the northern states. Presumably this is because snow in the latter area keeps the ground covered for long periods of time and thus curtails the food supply. Among such birds are the White-throated and White-crowned Sparrows, Towhee, and Bluebird.

An unusually long period of snow, together with abnormally low temperatures, prevailed in Tennessee during the last half of January, 1948, and so resembled typical conditions in northern states that it was feared the above species and perhaps others had met disaster. The first snow during this period fell on January 16 and measured from seven and one-half to nine inches. Below freezing temperatures prevented its melting; the minimum temperatures during the next four days were 19°, 5°, -1°, and 0° F.

On January 21, the thermometer rose to a few degrees above freezing and some bare spots of ground began to show. That night however an additional two inch snowfall occurred, followed by eight more inches on successive days. Temperatures remained below freezing during the balance of the month, including minimums of -1°, -2° and 3° F. By January 31, the snow had been glazed over by a light fall of sleet and upon this an additional inch of snow fell. The average of minimum temperatures for the last nineteen days of the month was 12.6° F.

Appeals to feed the birds were made in the newspapers and on the radio, with the result that thousands of homes inaugurated well patronized feeding shelves and stations under the impression that only by such action could birds be kept from starving. At my own shelves, the voracious local

throng was augmented by several newcomers, presumably from further out in the country.

On Sunday, February 1, I decided to spend the day afield to investigate the numbers, activities and physical condition of birds, as these might have been affected by the sixteen day snow period and abnormal cold. From experience gained as a result of much winter field work, I felt I should be able to make comparisons. During the day, I leisurely covered about three miles, wading thru crusted snow averaging six inches deep. Five specimens were collected and these were weighed, the bodies inspected for possible emaciation and the stomachs removed for examination of food content. Briefly, it may be stated that no dead birds were found, no birds were observed too feeble to fly, for the most part their actions were normal and no undue scarcity was apparent. Traversing wooded pasture lands and along the Little Harpeth river, much time was given to observing what the birds were found to be eating, and for this reason the five hour list comprised only twenty-two species. This list is given below together with remarks on certain species that may be of interest.

Black Vulture, 2 (evidence that they do not move southward during such weather, as they could easily do); Red-tailed Hawk, 2 (a pair, one "chasing" the other repeatedly); Killdeer, 2 (feeding in running water of brooks where they would wade in the shallow water and frequently pluck food items from the stream-bed); Yellow-bellied Sapsucker, 2; Downy Woodpecker, 1; Pileated Woodpecker, 2; Blue Jay, 1 (near stock barn); Common Crow, 1 (plus 100 at 3 p.m., flying eastward to some roost); Carolina Chickadee, 7; Tufted Titmouse, 4; no wrens were seen or heard; Mockingbird, 2; Robin, hundreds, including small flocks and singles (they were either eating the abundant hackberries or drinking at stream edges; their actions appeared normal and a male collected was a bit thin but not emaciated); Bluebird, (a male collected was thin); Cedar Waxwing, 100 (several flocks, partaking of hackberries or drinking and bathing at brook-sides); Myrtle Warbler, 2; Starling, hundreds (in flocks and scattered; eating hackberries, about barns and at brooksides); Rusty Blackbird 2; Cardinal, 6 (4 eating hackberries and 2 eating ash seeds); Purple Finch, 1 (a female, eating buck-bush berries (*Symphoricarpos*), as I have seen them do on previous occasions); Goldfinch, 1 (among weeds); Red-eyed Towhee, 1 (a female, in a hog shelter); Junco, 15 (pecking about on surface of snow, at bare spots on ground, and in wheel-worn roadways. A male collected was in normal condition); Field Sparrow, 30 (three small flocks were feeding on seed of broom-sedge, the stalks of which protruded thru the snow; one collected was thin but not emaciated); White-throated Sparrow, 7 or more (feeding on the ground in the few small spots that had become bare during the day. They appeared ravenous and were loathe to fly. Others fed along stream edges with Song Sparrows. A specimen collected was thin, as had been expected, but was not seriously emaciated); Song Sparrow, 5 or more (see note on preceding).

The specimens were purposely collected in an area removed at least half a mile from human habitation, so as not to reflect a possible source of

artificial food supply. All were males except the Junco. As mentioned above, the Robin and Junco were in about normal seasonal condition, the Bluebird and the Field Sparrow were a bit thin and the White-throat appreciably so, enough in fact to cause perceptible weakening. (Following a similar period of snow in Jan. 1940, one of the last mentioned species was found almost too weak to fly). The weights of the above specimens were: Robin, 78.6 grams; Junco, 20.5 grams; Bluebird, 32.0 grams; Field Sparrow, 13.0 grams; White-throated Sparrow, 26.5 grams. For comparison, Mrs. Amelia R. Laskey has kindly furnished January and early February weights, taken at her Nashville banding station, for the following species: Junco (17), average 22.1 grams; Field Sparrow (34), ave. 14.9 gms.; and White-throated Sparrow (11), ave. 31.0 gms. From these (unsexed) averages, my corresponding specimens showed 7.2%, 12.7% and 14.5% deficiencies in weight.

In conclusion, it may be said that the visual observations made and the specimens collected did not support the popular belief that such spells of weather are disastrous to bird life. It should be mentioned however that the hackberry trees, which are our most abundant trees locally, were well laden with berries, and they provided a food upon which nearly all birds can subsist.

2112 WOODLAWN DRIVE, NASHVILLE, TENN.

NESTING OF EASTERN BLUEBIRDS IN ABNORMAL SPRING WEATHER

By AMELIA R. LASKEY

The unusually cold weather, numerous snowstorms, and scarcity of food in February and March 1947 adversely affected the nesting season of Eastern Bluebirds (*Sialia sialis*) in the Warner Parks nest-box project at Nashville. Egg laying started later than normal, fewer eggs were laid than usual, and four emaciated Bluebirds were found dead in boxes in March.

I have comparable data for ten nesting seasons of this Bluebird population from 1938 through 1947. Three years—1938, 1940 and 1947—are considered abnormal from the standpoint of weather conditions during the first three months of the calendar year. 1938 had an extremely mild winter and early spring which by March had advanced vegetation to three weeks beyond normal for that time of the year. The winter of 1940 will be remembered for low temperatures and deep snows of January and February and cold March days which retarded spring growth considerably, and throughout the South, took toll of bird life. In 1947, February and March were unusually cold; February had thirteen days when snow fell in Nashville, totalling 13.3 inches for the month; March had eleven days of snowfall, with a total of 5.9 inches, and a killing frost on the 31st. (from U. S. Monthly Meteorological Summary).

During the seven intervening years conditions were nearer normal, although mean temperatures for March varied from the normal mean of 49.2 for Nashville by several degrees above or below normal. In these "Normal"

years, the first Bluebird eggs of the season were laid from March 10 (in 1942) to March 18 (in 1939 and 1943), with March 15 as the average date for first eggs in the seven years (1939, 1941, 1942, 1943, 1944, 1945, 1946). But in 1947, the first egg was not laid until March 30, and in 1940 on April 2.

Comparing the number of eggs produced for an entire season, 1947 shows a marked decrease. The average number of eggs laid per available nest box during the seven years ranged from 9.6 for 55 boxes in 1946 to 12.3 per box for 63 boxes in 1942, an average of 10.8 eggs per available box annually for the seven years. In 1947, the 54 available boxes averaged only 7 eggs per box for the season. The laying not only started later but there were fewer clutches laid; the 84 sets laid in 1947 constitutes a decrease of 31 per cent from the previous year.

Egg production in 1940 also dropped below the preceding and following years. In 1940, the average was 9.7 eggs per box for the season; in 1939, the average was 10.3 and in 1941, it was 11.1 per available box.

At the other extreme is the season of 1938, with a mild winter and early spring of few fluctuations in temperature, when the nest-building urge among Bluebirds was strong in February. I found a set of four eggs being incubated on March 5. That year, with 37 nest boxes available, egg-laying for the season reached a high peak with an average of 12.4 eggs per box for the season.

It is not known how many adults perished in 1947, but when making the first inspection of nest boxes for the season on March 11 and 12, I found three emaciated adults dead in boxes, and another on March 30, making a total of three females and one male. Only two had been found in previous years (February 1939 and 1943); the 1939 dead male apparently was not the victim of cold or starvation.

In 1940, after deep snows that lasted in one instance for a week, I found no dead Bluebirds, although droppings and regurgitated hackberry seeds on the floors of the boxes indicated they had been used for shelter. Two plausible reasons may be suggested for the finding of dead Bluebirds in 1947 and none in 1949. In the winter of 1946-47, there were no hackberries on the trees, due to the failure of the crop in the growing season. This fruit, although composed principally of a relatively large indigestible seed, with a thin, dry, sweet hull, is an important winter-food item for many birds, including Bluebirds, when the ground is covered with snow and sustenance must be gleaned elsewhere. In 1940 some food, including hackberries, was available.

During the January and February periods of deep snow in 1940, the territorial phase of the nesting cycle had not progressed to the high point that it would have reached by March when nest-building and egg-laying are normally in progress. In 1947, the snowstorms came late with eleven days of snowfall scattered through March when the Bluebirds doubtless had already, in many instances, selected nest sites and territories, and had become attached to them. Therefore it would have been more natural for Bluebirds to wander farther in January in an emergency search for food

than in March when the behavior pattern would be different. Territorial ties would doubtless inhibit, to some extent, wandering in March to other locations where food might be available.

Factors other than the average (mean) temperatures for early spring are involved in the start and volume of egg production but weather does have considerable influence. Abnormal weather conditions undoubtedly have definite effects.

GRAYBAR LANE, NASHVILLE 4, TENNESSEE.

THE ROUND TABLE

NESTING DATA FROM MEMPHIS—In the spring of 1947 the members of the Memphis Chapter decided to keep notes on all nests observed in the city and nearby surrounding area. Only casual records were kept, and they do not give a clear picture of common summer residents as no special search was made to compile large lists of nests or of species. 139 nests were noted, representing 27 species. These were: Robin, 39; Brown Thrasher, 15; Cardinal, 13; Mourning Dove, 10; Mockingbird, 9; Starling 5; Red-headed Woodpecker, 4; Flicker, 4; Blue Jay, 3; Carolina Wren, 3; Wood Thrush, 3; Bronzed Grackle, 3; Sparrow Hawk, 2; Shrike, 2; Red-wing, 2 (both nests found in privet hedge alongside lake in Chickasaw Gardens); Cooper's Hawk, 1; Bob-white, 1; Killdeer, 1 (old Vollentine golf course); Nighthawk, 1 (on roof of Power and Light sub-station. 1 adult and 1 young banded); Crested Flycatcher, 1; Rough-winged Swallow, 1 (bank along Wolf River just north of city limits); Bewick's Wren, 1; Catbird, 1; White-eyed Vireo, 1; Warbling Vireo, 1; Meadowlark, 1; Summer Tanager, 1.

Of the 39 Robin nests, 17 were in Elm trees, 8 were in various species of oak and 3 in evergreens. The lowest Robin nest was eight feet from the ground and the highest forty, with an average of about nineteen feet.

The Cardinal had the highest percentage of tragedies. Of course, due to location, many nests could not be closely watched to see if the young left the nest without mishap, but out of the 13 Cardinal nests, 3 were known to be destroyed or deserted. Only one Thrasher nest out of 15 was destroyed and none of the 9 Mockingbirds met with loss. These three species, all nesting in low shrubbery, were more closely observed throughout the nesting period. One Thrasher nest was observed daily from May 1 until May 10 when the young left the nest. On May 12 a new egg was laid. The nest was full of mites at this time. On May 15 the egg was gone and the nest deserted.

It was interesting to note that only one Catbird nest was recorded, while the Catbird is one of our common summer birds in town. This particular nest was well concealed in a cane thicket at "Coffey Grounds" and almost passed unnoticed.

The Dove, always a careless nest builder, in one case chose an excellent foundation for his home. It was placed on top of an old Wood Thrush nest!

Two young doves were seen in their two story home on July 28. The latest nesting record was that of a Dove. A young bird, barely able to fly, was caught by hand, banded and released on September 5.—LULA C. COFFEY, 672 North Belvedere Blvd., Memphis, Tenn.

EDITOR'S NOTE—The Memphis Chapter encouraged the collecting of nesting data by all their members by the preparation of mimeographed blanks for recording information and distributing these blanks to the members. Each blank contained spaces for recording the following information about one nest, a blank to be filled out for each nest found: species of bird, date nest first observed, locality, kind of tree or shrub, location of nest in tree or shrub, number of eggs or young, and the name of the observer. All subsequent observations on that nest or any special comments or descriptions were written on the reverse side of the blank. Examples of the blank form may be obtained from Mrs. Coffey at the address given above.—J.T.T.

SOME ADDITIONAL NOTES ON THE BIRDS OF PICKETT FOREST, TENN.—In THE MIGRANT for June 1937, Mr. Albert F. Ganier published an article on the birds found during a week's stay at Pickett Forest by a group of the Tennessee Ornithological Society. Pickett Forest is at the northern part of the Cumberland Plateau in Tennessee, in Pickett County. During the first week in June in 1946 I spent most of my spare time watching birds in this area, and it is of interest to compare the list of birds with that published by Mr. Ganier.

In my trip, I failed to find the following forms mentioned in the 1937 list: Black-crowned Night Heron, Cooper's Hawk, Ruffed Grouse, Wild Turkey, American Woodcock, Yellow-billed Cuckoo, Great Horned Owl, Night-hawk, Ruby-throated Hummingbird, Belted Kingfisher, Red-bellied Woodpecker, Red-headed Woodpecker, Red-cockaded Woodpecker (see comments below), Tufted Titmouse, Bewick's Wren, Blue-gray Gnatcatcher, Bluebird, Yellow-throated Warbler, House Sparrow, and Bachman's Sparrow. In many or most cases these birds may have been present and just not observed.

In addition to the birds of Ganier's list, my observations add the following species:

Bob-white (*Colinus virginianus*)—several seen close to the camps on several occasions.

Barred Owl (*Strix varia*)—heard once.

Acadian Flycatcher (*Empidonax vireescens*)—several in the valley of Rock Creek along the old narrow-gauge railroad bed.

Common Crow (*Corvus brachyrhynchos*)—several in Rock Creek Valley.

Cape May Warbler (*Dendroica tigrina*)—a singing male on June 2, an unusually late transient. This warbler was singing among the branches of some small pines along the south shore of the little lake within the park area. Since it was raining lightly, I was surprised to find a warbler in song. My

7x50 binoculars soon revealed the bird to be a male Cape May Warbler. I watched him at my leisure for nearly half an hour, frequently within twenty feet in the open, and there is not the slightest doubt of the identification.

Parula Warbler (*Compothlypis americana*)—singing males in several scattered parts of the park, including close to the lake. Nest with four eggs at Laurel Falls, June 3, 1946.

Several other general notes may be added. A nest of the Kingbird was seen high in the tall pine beside the Recreation House at the lake. Many nests of Phoebe and several of the Rough-winged Swallow were found on the ledges along the lake, the swallows in pot-holes. The Peregrine Falcon was seen only once, near the eyrie found by Herbert and Spofford (MIGRANT, 1942) in Wolf River Gorge. No Peregrines were seen at any of the other locations mentioned by Ganier. The Sparrow Hawk was apparently nesting at Rock Island, as reported by Spofford in THE MIGRANT, 1942. This nest was on a cliff in a site mentioned by Ganier in 1937 as being occupied by the Peregrine. Whip-poor-wills were conspicuous at dusk near the camp, and at one time five were seen at different spots on the parking area among the pines around the cabins. The elaborate courtship display could be watched from the cabin window.

No Red-cockaded Woodpeckers were observed, but nesting holes indicating their presence were found. My attention was first attracted to a number of tall pines on an open knoll near the "Natural Bridge." A patch of long dried pitch on the bare trunk surrounded the lower side of what was apparently an old woodpecker excavation, and the bark seemed less rough near the old nest. Thinking this an unusual situation for a woodpecker nest, I examined the other trees and soon found four more nests which could be arranged in sequence based on "newness." One was apparently a nest of earlier that spring, as much fresh pitch was below the opening. A well marked band completely around the trunk, where all the rough parts of the bark had either been stripped or worn away by the birds, marked the nest site even when the observer was out of view of the actual nest. The four nests varied in height from about fifteen to forty feet. Altho once or twice a medium-sized woodpecker was seen flying away from that region, no woodpeckers were identified nearby except an occasional Flicker. In late June, 1947, one year after the above, a visit to the area revealed a new nest about forty feet up in a slender pine. Not only was fresh pitch and a well marked band around the trunk clearly visible, but for six or eight feet below the nest flakes of bark had been chipped off, making conspicuous light marks in the bark. Again no birds were seen which I could suspect of being the nest builders. Presumably nesting had taken place earlier in the season and the family had left the area. The nest holes appeared to be fairly large, but perhaps smaller than would be expected of a Flicker, and some were definitely so. It is my belief that these nests were those of the Red-cockaded Woodpecker (*Dendrocopos borealis*). — WALTER R. SPOFFORD, Vanderbilt University, Nashville, Tenn.

NOTES HERE AND THERE

Annual Meeting of the T. O. S.

The annual meeting of the Tennessee Ornithological Society will be held on May 16, 1948, at Nashville in conjunction with the Spring Field Day of the Nashville Chapter. The members of the Nashville chapter have in the past managed a fine program for this day and the preceding Saturday. The President of the Nashville chapter, Mr. Edwin D. Schreiber, issues an invitation to all state members and friends to attend this year's meeting, and it is hoped that representatives will come from all over the state. The meeting of the Society's directors will presumably be on Saturday afternoon, May 15.

Report of Finance Committee

The fine work of the Endowment Committee, Mr. B. H. Abernathy, chairman, and the generous offer of the allied Tennessee Audubon Society, previous recipient, through the efforts of Mr. Albert F. Ganier, of a bequest from Mrs. Nancy Boyd Miller of Washington, D. C., have recently culminated in the purchase for the T. O. S. of 33 shares of Massachusetts Investors Trust. The checks received by Treasurer L. C. Kent were for \$455.33 and \$454.51, respectively, or a total of \$909.84. The amount invested was \$892.98 and it is hoped that the shares will yield an income of about 4%. This action was recommended by your finance committee, which was instructed to take action at the May, 1947, meeting of the Society and its Board of Directors.—BEN B. COFFEY, Jr., Chmn. T. O. S. Finance Committee.

News of the Chapters

The Memphis chapter now consists of about eighty-two members. Its officers are: President, Brother Ignatius Vincent; Vice-President, Mrs. Clarence E. Moore; Secretary, Miss Alice Smith, and Treasurer, Miss Mary Davant. Meetings are held on the second Wednesday of each month at the Memphis Museum, and a field trip is held once a month. The annual Spring Field Day for this chapter will be held on May 2.

The Nashville chapter numbers about eighty-one members. Its President is Edwin D. Schreiber; Secretary, Miss Helen M. Howell; Corresponding Secretary, Miss Penelope Montfort, and Chairman of the Program Committee, Albert F. Ganier. By unanimous vote of the chapter, Bill Crouch was elected as the first Conrad Jamison, Jr., Memorial Fellow for the year. This chapter meets on the second and fourth Mondays of the month. The annual Spring Field Day, at which time the state society also meets, will be held on May 16.

The Knoxville chapter has about twenty-nine members. The President is Robert J. Dunbar; Vice-President, Miss Elise Morrell; Secretary-Treas-

urer, Mrs. Robert A. Monroe. Meetings are held on the first Wednesday of the month, and the spring field day will be held on May 2.

The Greeneville chapter consists of about thirteen members. Among the officers elected on December 28, 1947, are the President, J. B. White; Vice-President, C. M. Shanks; Treasurer, Mrs. Willis Clemens; Secretary, Mrs. J. B. White; Statistician, Mrs. Richard Nevius, and member of the State Board of Directors, Richard Nevius.

The Elizabethton chapter numbers twenty-four members. The officers are: President, J. C. Browning; Vice-President, William A. Sutherland; Secretary, Mrs. Avery Evans; Treasurer, Miss Mary Cook; Statistician, Mrs. Lee Roy Herndon; Publicity Chairman and Historian, Mrs. George K. Leonard. The fourth anniversary banquet of the chapter was held on February 21; the entire membership and forty-five guests, including representatives of other chapters, were present, and Mr. Albert F. Ganier was the guest speaker. During the spring this chapter is sponsoring a course in bird identification, which is open to both members and non-members.

T. O. S. Membership Drive

President L. R. Herndon has appointed Mr. Albert L. Powell, Jr., (757 Shotwell St., Memphis 11) to be chairman of the T. O. S. Membership Committee for 1948. The other members of the committee are the chairmen of the various local chapter membership committees. The objective of the state committee is to increase the membership by approximately 150 new members, which can best be accomplished by an increase of about 50% in the membership of local chapters. If this objective is attained, the Society will be on a firm financial footing, and it will be possible to expand and improve THE MIGRANT. Mr. Powell has emphasized the importance of Junior Membership for younger people who will be the future active members of the Society. Mr. Powell has prepared a handsome membership blank for new applications.

THE MIGRANT

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*The simple truth about birds is interesting enough;
it is not necessary to go beyond it.*

DR. CLARENCE E. MOORE

On October 29, 1947, the Memphis Chapter of T. O. S. lost by death one of its most active and distinguished members when Dr. Clarence E. Moore, Professor of Biology at Memphis State College, passed away at his home after an illness of two weeks.

Although his name is closely identified with biological research in Tennessee, Dr. Moore was not a native Tennessean, having been born in Walla Walla, Washington. He did his undergraduate work at the University of Montana, and received his Ph.D. from Columbia University. Prior to joining the Memphis State College faculty in 1928, he had taught in schools in the Middle West and had spent some time in Panama in research work for the United Fruit Company. He was a member of the American Association for the Advancement of Science and of the Executive Committee of the Tennessee Academy of Science.

Emanating from his love for his work but expanding to take in the whole realm of study and appreciation of nature were Dr. Moore's interests. In the fore of these was ornithology. Within three years after he assumed his duties at Memphis State he became actively associated with the Memphis Chapter of T. O. S. Through the years of this association his leadership and helpful influence have been felt in many ways. He served as president of the local chapter in 1935 and 1936. During the year 1939-1940 he served as T. O. S. Vice-President for West Tennessee. At the time of his death he was on the State Board of Directors, having also served in that capacity in 1938-1940.

Dr. Moore is survived by his accomplished wife, Mrs. Amy Weedon Moore, who shared with him not only common interests but also specialized knowledge in the field of biology; two sons, Stuart and Kenneth Weedon Moore; and one daughter, Patricia Ann Moore. These other members of his family possess the same zest for knowledge of the out-of-doors.

Essentially Dr. Moore was a scholar, but he bore his scholarly knowledge with such modesty that everyone felt at ease with him. So patient was he in sharing his knowledge with beginners who wished to learn, that many outside his classroom became his students on field trips and in discussions at club meetings. Activity in all worthwhile causes characterized his mode of life, for he gave much time to his church, his college, and to the numerous scientific organizations with which he was affiliated. Although the actual presence of Dr. Moore will be missed, his quiet-mannered leadership and influence will live on and be felt for many years to come through the inspiration which he gave to numerous students to continue their study in higher education and through his helpful association with those sharing his many interests.—NELLE MOORE, for the Memphis Chapter of T. O. S.

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