

# THE MIGRANT

A QUARTERLY JOURNAL  
DEVOTED TO TENNESSEE BIRDS

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# THE MIGRANT

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## THE COTURNIX QUAIL IN TENNESSEE

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Tennessee Game and Fish Commission

### INTRODUCTION

Throughout history, the Bobwhite Quail has borne the burden of upland gamebird hunting in the southeastern states. The Bobwhite thrived in Tennessee and neighboring states because there was an abundance of suitable cover and food plants. There was room for both agriculture and quail cover. In more recent years, however, improved methods brought about more intensive farming, and more and more quail habitat was exploited for agriculture. In time these fields lost their native fertility because of over-use, and, in more recent years, many acres of cultivated land have been turned to pasture. True, some of those old fields were allowed to return to scrub trees, and many acres of quail foods, such as Lespedeza, had been planted by conservation-minded farmers. But we were still lacking in quail habitat, particularly in the face of the increasing number of quail hunters.

The Tennessee Game and Fish Commission has for eight years carried on a habitat development program whereby food plants, such as Korean Lespedeza and bicolor Lespedeza and cover plants such as multiflora rose have been distributed to farmers and conservation clubs to increase quail habitat and for erosion control. There was still a need, however, for a game bird to fill the habitat too thin to support quail. One answer was the introduction of an exotic game bird. An outstanding example of this is the successful introduction of the Ring-necked Pheasant brought to the midwest to replace the near-extinct Prairie Chicken which was disappearing in the face of the plow.

In 1955 game biologists of the Bobwhite range set out to find a new game bird for the fields and pastures with cover too thin to support the Bobwhite. The biologists carefully noted the characteristics of the habitat which they wanted occupied. Then they went to similar habitats in other countries. Finally attention was focused on the Coturnix Quail of Europe and Asia. This bird apparently possessed most of the characteristics desirable for making it a suitable introduction. Such desirable characteristics were: (1) it must possess the qualities of a game bird; (2) it must be adaptable to conditions to which it was to be introduced in the United States; (3) if established in its new home, it must be available to the hunter; and (4) biologists must be assured that it would not endanger any native species of birds.

With these qualifications reasonably satisfied, the bird had to be given an ample opportunity to establish itself in the habitat selected for it to fill.

It should be explained that this was not the first time that the Coturnix had attracted attention as a game bird in this country. In the 1870's and again in the period 1900 to 1925, various attempts were made to establish the bird both in Eastern United States and on the Pacific Coast. All attempts met with failure, probably due to insufficient planning and study prior to the actual introductions. Missouri was the first state to renew efforts to introduce the Coturnix when a project was designed in 1955 to study the bird's biology and ecology.

#### CLASSIFICATION AND RANGE

The Coturnix (pronounced Cō-tur'-nīx) is the Old World quail of Europe, Africa, Asia, and Australia and various adjoining islands. Although in the same family as the Bobwhite (Phasianidae), the Coturnix is in a separate subfamily (Phasianinae). Peters (1934) recognizes five species of the Genus Coturnix and fourteen races. Of *Coturnix coturnix* he recognizes eight separate races. Various species and races are found in Europe as far north as 65° north latitude, south throughout Africa, Canary Islands, the Azores, and Madagascar; east through Arabia, India, Ceylon, southeast Asia, China, Japan, Australia, Tasmania, and New Zealand. References to the quail, which would most probably be the Coturnix, are made in the Bible. There, in the Books of Exodus, Numbers, and Psalms, the story is told of the hunger the Children of Israel suffered after they left Egypt with Moses and of how God sent quails in great abundance for them to eat. Munro (1944) states that *Coturnix c. japonica* was first released in Hawaii on the islands of Maui and Lanai in 1921 and quickly established itself. Thus it appears that the Coturnix Quail is an inhabitant of all temperate and tropical parts of the world except North and South America.

Studies of the ecology and game bird qualities of all known species and races of Coturnix led to the conclusion that the migrant Japanese quail (*Coturnix c. japonica*) was best suited for the habitat and purpose for which it was to be used in the United States. In its new role as an American game bird, *Coturnix c. japonica* is more commonly known as the Coturnix Quail without distinction to the race. In its native range, *C. c. japonica* is known to breed on Sakhalin and the Japanese islands. It winters to southern China, Siam, Indochina, Formosa, and Hainan. The stock with which the present program is being carried out in the Southeast was first secured by the State of Missouri from a game bird breeder in California in April, 1955. These birds were the 1954 progeny of quail brought from Japan in 1953. Quail used by other states in programs in the Southeast were obtained from Missouri.

#### DESCRIPTION

The Coturnix Quail is smaller than the Bobwhite—about the size of the Mourning Dove (*Zenaidura macroura*). At nine months of age, the mature Coturnix weighs about 4¼ ounces (the Mourning Dove averages 4 ounces). The bird in the field appears even smaller than the weights indicate because of a very short tail. The Coturnix has a longer, thinner bill than the Bobwhite. Neither does it have the crest of the native quail. The Coturnix is said to walk and squat on a more horizontal plane than the Bobwhite. In this characteristic and general appearance, the Coturnix is said to resemble the meadowlark (*Sturnella magna*). In flight, however, the feet often dangle—much in the manner of the rail. The wing beat is rapid.

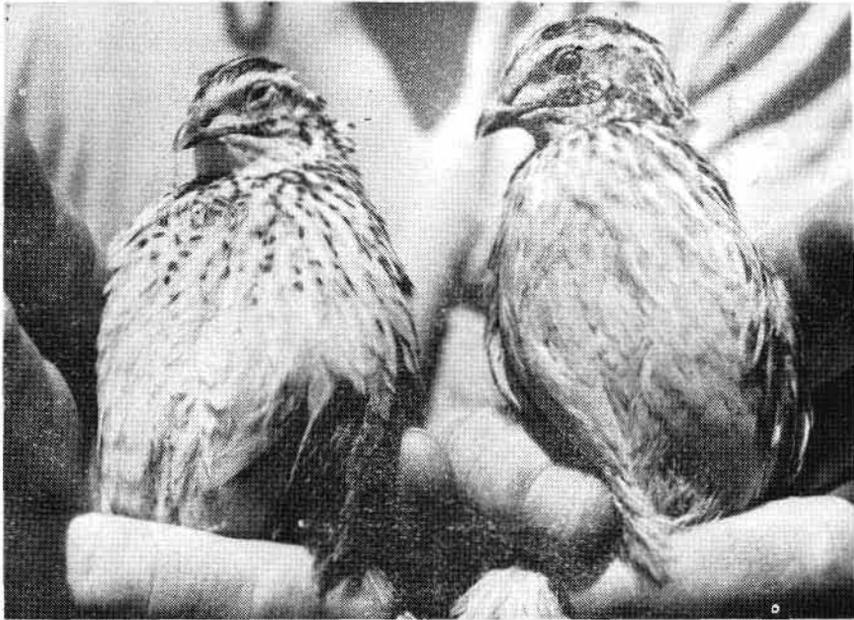


Figure 1. The male Coturnix Quail (right) may be distinguished from the female (left) by the ochraceous-brown breast and brick red throat. The throat of the female is creamy-white.

A description of *C. c. japonica* as quoted by Stanford (1957) from Takatsukasa (1935) is as follows: "Adult male—forehead, crown and nape black with rusty-brown edges, except the median vertical and superciliary lines, which are cream white. Inter-scapular regions black with broad cream shaft stream and rusty bars; scapulars, black and rump similarly colored, but added with some cream transversal bars, and greyish edges and tinted with light brown. Wing-coverts greyish-brown with grey edge and black base; primaries dark brown speckled with rusty-brown at the tip of the outer web, and margined with the same color; secondaries similar to the primaries, but the brownish parts are larger and broader tertiaries patterned like scapulars, but no cream shaft streak. Lores, face and throat brick red, breast ochraceous-brown with white shaft streak; sides of the breast similar, but the base of feathers are tinted with rusty-brown, with very large white shaft streaks, on some larger feathers there are some black and buff markings of the webs. Abdomen and under tail-coverts pale cream; tail like the back. Bill dark brown, legs pale brownish-yellow, and iris brown.

"Adult female—similar to the male, but face and throat cream-white, except around the eyes and ear-coverts which are rusty-brown. Malar line also rusty, but has brown dots. Three black dotted lines with rusty base exist at the end of the ear coverts; one runs along the side of the neck, the second diagonally to the breast, and the third beginning at the lower front of the ear coverts, surrounds the fore-neck, but is generally interrupted at the middle of the throat (very old birds have pale brick-red throats.)" See Fig. 1.

### CHARACTERISTICS

The Bobwhite possesses a high degree of gregariousness in its characteristic covey pattern. Stanford (1957) says that although the Coturnix can often be found in aggregates of some numbers, particularly in migration, the birds seem to range as limited-period family groups, pairs, or individuals. The family group is said to consist of the female and the young and is operative for only a short time before the young are on their own. While the Bobwhite covey, when flushed, usually bursts as a group and flies in one general direction with a certain degree of unanimity, any group of Coturnix when flushed will go to the four winds in singles.

The Bobwhite covey roosts in a close circle, but the Coturnix when roosting will squat separately without regard to those near him. They are said to roost separately even in zero temperatures in weather that would often kill Bobwhite roosting singly. Several Coturnix may be seen gathered on a good dusting ground, but when flushed they go their separate ways with no perceptible organization.

The Coturnix flushes with a rapid wing beat flying 6 to 10 feet off the ground going 100 to 200 yards away. When they hit the ground again, they move very little before holding tightly.

It would appear that the Coturnix chooses the borders and edges of grassy or open fields and seems to like small grain, cornfields, and especially stubble. The bird, when flushed, will often take to open grassy areas. It also will feed and nest in such cover. It may be found at times with the Bobwhite in Bobwhite cover. It is generally agreed by observers that it is not a bird of the forest.

### NEST AND YOUNG

The Coturnix prefers a grassy nesting site. The nest is a shallow depression in the ground. It may be lined with a few strands of grass or other material from around the nest. Unlike the Bobwhite nest, the Coturnix nest may have no overhead cover at all.

Missouri nests observed by Stanford (1957) averaged 10 eggs per completed clutch. Although the eggs vary considerably in coloration, they generally have a ground color of pale to yellowish-olive to light gray, tan, or dark brown; and they are lightly to heavily blotched with brown, olive-green, or brownish-black (Figure 2). Markings vary greatly in shape and size. Eggs vary from 32.6 to 26.2 by 22.4 to 21.5 millimeters in dimensions.

The eggs hatch after approximately 15 days of incubation. This is about a week less than the time required for the Bobwhite eggs to hatch. The young birds develop very rapidly. Young may be flying and on their own at 12 days of age. Stanford (1957) speaks of 7-day-old birds that were struck by a car as they flew across the highway. Such rapid independence of the young birds may indicate that the old birds have time to nest a second time the same season.

### RELEASE IN TENNESSEE

Tennessee's part in the over-all Coturnix program has been the experimental releasing of adult birds on designated areas. The first release was made on September 20, 1956, when 2,000 Coturnix Quail were planted in the Lock 5 area along the Cumberland River in Wilson County. (Table 1). In 1957, 12,865 Coturnix were released in nine separate plantings in Sevier and Green counties in East Tennessee; Wilson, Putnam, and Coffee counties in middle Tennessee, and Madison and Benton counties in West Tennessee.

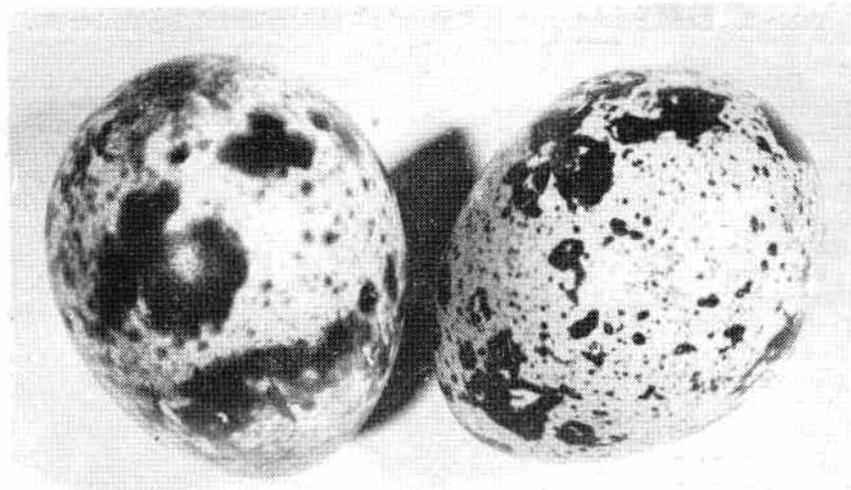


Figure 2. Unlike the pure white Bobwhite eggs, the eggs of the Coturnix are heavily blotched with brown.

Table 1. Coturnix Quail released in Tennessee during 1956 and 1957.

Date of Release	County	Number of Quail
September 20, 1956	Wilson	2,000
April 9, 1957	Sevier	1,000
April 10, 1957	Madison	1,000
April 10, 1957	Benton	1,565
June 7, 1957	Wilson	1,500
June 7, 1957	Wilson	500
June 7, 1957	Putnam	2,000
June 20, 1957	Green	2,000
August 31, 1957	Coffee	2,000
November 19, 1957	Wilson	1,300
Total		14,865

Biologists continued close observations of these plantings immediately following each release. Wherever possible, dogs were used for locating the birds. A limited number of nests was located at the release sites during the 1957 breeding season, but most of the planted Coturnix had scattered widely immediately following the release. Each bird carried a leg band, and when the Bobwhite hunting season opened each year (1956 and 1957) band returns soon appeared from widely scattered points.

As a result of these movement studies, it was apparent that the Coturnix was displaying its migratory characteristic. It was observed by biologists censusing the release sites that a rapid dispersal of the birds began within a week following the plantings. Of the 2,000 Coturnix Quail released in Wilson County on September 20, 1956, 14 had been recovered by June 30, 1957. Recoveries were made up to 400 miles away. Although a majority of the birds retaken had moved in southern directions, there were four instances of northward movement from 15 to 70 miles and as late as January 3, 1957.

Table 2. Band recovery from Coturnix Quail released September 20, 1956, in Wilson County, Tennessee

Date of Recovery	Location of Recovery	Approximate Miles Traveled	Direction from Release Site
November 5, 1956	Warren Co., Tenn.	65	SE 1*
December 10, 1956	Macon Co., Tenn.	50	NE
December 20, 1956	Hardin Co., Tenn.	120	SW
December 22, 1956	Davidson Co., Tenn.	10	SW
January 1, 1957	Giles Co., Tenn.	80	SW
Unknown	Wilson Co., Tenn.	15	NE
November 28, 1956	Barren Co., Ky.	70	NE
January 3, 1957	Muhlenberg Co., Ky.	70	NW
November 22, 1956	Coneuch Co., Ala.	350	S
November 23, 1956	Cullum Co., Ala.	160	S
Unknown	Madison Co., Ala.	115	S
January 5, 1957	Madison Co., Ala.	100	S
January 8, 1957	Union Co., So. Car.	275	SE
January 1, 1957	Hancock Co., Miss.	400	SW

1\* taken by accidental death—all other returns by hunters.

Since the first Bobwhite hunting season following the 1957 releases is not complete at the time of this writing, Coturnix band returns were also incomplete for the season. Observations of birds released in other states, however, also indicate that the Coturnix disperse quickly following artificial releases. Among the records gathered thus far in 1957 are a Tennessee bird recovered in Michigan and one bird each from Florida and Alabama recovered in Tennessee. Active programs to study the success of experimental releases of Coturnix are now under way in Alabama, Georgia, Indiana, Kentucky, North Carolina, Ohio, and Texas as well as Missouri and Tennessee.

It is still too early to draw conclusions as to the success of the Coturnix Quail releases in Tennessee. Biologists have feared that the birds would not return north from their fall migration. No data have yet come to light that would indicate that any of the birds released in Tennessee or any other state has completed a migratory cycle in Tennessee but the recovery of Florida and Alabama birds in Tennessee is encouraging. Since the bird is so highly migratory, biologists must be assured of the return of adequate numbers of the migrants in the spring if the plantings are to be considered successful.

Although ornithologists cannot yet consider *Coturnix japonica* an established species in Tennessee, it is very possible that numbers of the birds may be observed. Observations should be reported to Mr. Lemuel Due, State Game and Fish Commission, Nashville.

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## TELEVISION TOWER CASUALTIES

By Amelia R. Laskey

NASHVILLE.—It is sad and depressing to realize the heavy toll of our beautiful and useful birds that is being taken annually during the periods of night migration at the newer type of television towers in numerous locations in the United States. These tall, narrow, triangular-shaped towers are supported on three sides by 12 or more heavy cables, extending from the top groundward at least 600 feet. Thus there is a large acreage of sky crossed by a maze of wires which migrants are unable to avoid and which kill or maim hundreds on a single night during the peak migration flights, continuing nightly during each migration period of several weeks.

From September 23, 1957 to mid-November, we made daily early-morning searches of the ground under the wires of a 1000 ft. television tower, built on top of a 1174 ft. hill at Nashville, collecting 704 birds of 67 species. This number does not include the complete list of casualties. Owing to the rough terrain, much of it in woods, brush or tall grass, it was impossible to find all of the birds, some were taken by predators, some were consumed by ants and fly larvae, leaving unidentifiable skeletons or feathers.

There is no known means of eliminating this great hazard in this type of tower, so my efforts have been directed toward utilizing this large sample of migration to obtain knowledge of the species passing over, unseen, in the night, for comparison with our daylight observations in the field. Records were kept on the number of each species found daily. The date used indicates the morning when the freshly-killed bird was picked up. Several people assisted in gathering the birds, Mr. and Mrs. W. E. Fentress, Mrs. Ruth Lawrence, Mrs. C. E. Goodlett, Mrs. S. M. Bell and F. C. Laskey. I am responsible for all identifications, for tabulations and analysis of the records.

These casualties provided a large number of valuable records, including rare species, new extremes in arrival and departure dates, many earliest arrival and latest departure dates for the current autumn migration, and a number of peak or wave dates for different species. Actually the casualties furnished more data on bird movements than the sight records of those of us who made field observations here during the same period. I also took wing measurements of species that breed in Nashville for comparison of the size of the migrants with those nesting here.

Cold fronts with overcast skies and the accompanying north winds always brought a flight of migrants which was discernible in the increased number of casualties, but not always in the field.

On September 5, a weak cold front with fair weather resulted in a fine field list of migrants at Radnor Lake (with Mrs. Goodlett) and at my home. On that date, first records of autumn arrival included Pied-billed Grebe, Olive-sided Flycatcher, Nashville Warbler, Blackburnian Warbler, and 2 male Rose-breasted Grosbeaks, one in song, tying the early arrival date of Sept. 5, 1939 by H. C. Monk. Autumn singing by that species has been rarely recorded here.

After a period of showery, mild weather from Sept. 8-22, another cold front arrived, bringing the first major autumn disaster for 1957 to night

migrants at the television tower: 95 birds of 20 species were gathered on Sept. 23, including 12 Tennessee Warblers, 10 Chestnut-sided Warblers, 22 Ovenbirds (23 percent) and 12 Redstarts, peak numbers for the 4 species. On Sept. 24, we gathered 38 birds of 14 species. My trips to Radnor Lake (about 3 miles from the tower) on those two days were disappointing for birds were scarce with no migrant arrivals there or at my home.

Thereafter the numbers of casualties fluctuated, with the increases occurring during cold-front periods as follows: Sept. 28-29, over 50 of 21 species for the two days; Sept. 30, 46 birds of 20 species; Oct. 4 (hard rains), 150 birds of 28 species. Of these, 80 birds (55 percent) were thrushes (Wood 17; Swainson's 40; Gray-cheeked 23) and 13 Catbirds. On Oct. 5, the casualties numbered 41 of 14 species. Although we found no Rose-breasted Grosbeaks on this date in the kill, there was a definite peak in the South Harpeth Valley near Nashville where our T.O.S. group listed 24 on a field trip that day at the H. E. Parmer camp.

On Oct. 11, there were 29 casualties and on Oct. 12, there were 16. On Oct. 25 and 26, the count went over 50 with 18 Bay-breasted Warblers for the two-day period (35 percent). With only 14 and 16 birds for the next two days, numbers dwindled and it seemed that the migration had nearly ended. However on Nov. 4, we had 36 casualties of 13 species, many of especial significance. There were 8 Golden-crowned Kinglets (4 of each sex), 22 percent of the total, an Orange-crowned Warbler, a Black-throated Green Warbler, a Palm Warbler, a small peak of two species that winter here, Myrtle Warbler 6, Field Sparrow 10, a late Indigo Bunting and others that are mentioned in the following summary of outstanding records.

To summarize the data obtained: the rarest bird found was a Yellow Rail, Sept. 29, the second Tennessee record (preserved as a specimen by A. F. Ganier); two other species seldom found in the field were Red-breasted Nuthatch, Nov. 4, Black-throated Blue Warbler, a male on Sept. 29 and a female on Oct. 1.

There were two new earliest arrival dates: Brown Creeper Oct. 4 and Lincoln's Sparrow on Sept. 29.

There were four new latest departure dates: Short-billed Marsh Wren, Oct. 26 and Nov. 4; Yellow Warbler, Sept 27; Northern Waterthrush, Oct. 12; Grasshopper Sparrow (2) Nov. 4. One of these was badly mashed, but A. F. Ganier prepared the other as a study skin which will be identified later for sub-specific status. A Blackburian Warbler on Oct. 25 ties the previous late departure date.

For the 1957 autumn season, television tower casualties furnished earliest arrival dates for 16 species, two of them, White-throated Sparrow on Oct. 4 and Fox Sparrow on Oct. 25 were also found by H. C. Monk in the field on the same dates. Latest departure dates were also recorded for another 16 species.

From field observations in their respective home areas by C. E. Goodlett, H. C. Monk and myself, plus the tower casualties, the greatest influx of White-throated Sparrows occurred between Oct. 27 and Nov. 5.

Of the 704 casualties of 67 species, Ovenbirds led in numbers with 73, Swainson's Thrush 56, Catbird 47, Magnolia Warbler 44, and Tennessee Warbler 44.

The complete casualty list, for this tower, of birds that could be identified follows; some remains were beyond recognition when found.

Pied-billed Grebe 2; Black Vulture 1; Sora 2; Yellow Rail 1; Yellow-billed Cuckoo 4; Yellow-bellied Sapsucker 3; Traill's Flycatcher 2; Least Flycatcher 1 (these Empidonax species identified according to Forbush); Red-breasted Nuthatch 1; Brown Creeper 1; House Wren 1; Winter Wren 1; Long-billed Marsh Wren 1; Short-billed Marsh Wren 2; Catbird 47; Brown Thrasher 2; Robin 1; Wood Thrush 28; Hermit Thrush 4; Swainson's Thrush 56; Gray-cheeked Thrush 32; Golden-crowned Kinglet 17; Ruby-crowned Kinglet 3; Starling 1; White-eyed Vireo 2; Yellow-throated Vireo 1; Red-eyed Vireo 20; Philadelphia Vireo 2; Black-and-white Warbler 14; Blue-winged Warbler 2; Tennessee Warbler 44; Orange-crowned Warbler 3; Nashville Warbler 1; Yellow Warbler 2; Magnolia Warbler 44; Black-throated Blue Warbler 2; Myrtle Warbler 16; Black-throated Green Warbler 9; Blackburnian Warbler 10; Chestnut-sided Warbler 27; Bay-breasted Warbler 35; Palm Warbler 9; Ovenbird 73; Northern Waterthrush 6; Kentucky Warbler 1; Yellowthroat 22; Yellow-breasted Chat 3; Hooded Warbler 1; Wilson's Warbler 1; Canada Warbler 3; Redstart 23; Eastern Meadowlark 1; Scarlet Tanager 6; Summer Tanager 2; Rose-breasted Grosbeak 6; Indigo Bunting 18; Dickcissel 1; Savannah Sparrow 7; Grasshopper Sparrow 3; Slate-colored Junco 3; Chipping Sparrow 1; Field Sparrow 21; White-throated Sparrow 12; Fox Sparrow 2; Lincoln's Sparrow 1; Swamp Sparrow 9; Song Sparrow 7.

Occasional visits were made to two other towers in Nashville of different designs. One of these, a radio tower, is 878 feet high, supported by very heavy cables from mid-section to the ground. The other, a television tower, is of comparable height but has a wide base and no cables. Very few dead birds were found at either of these towers. The largest casualty list noted was at the television tower on Sept. 29 when 7 birds of 5 species were gathered; Whip-poor-will, a female; Black-and-white Warbler 1; Tennessee Warbler 1; Magnolia Warbler 2; Ovenbird 2.

From our observations in Nashville and the reports of others in various states, it seems obvious that this newer type of television tower of 1000 or more feet in height, supported on each side by 12 or more cables extending from the top, is far more disastrous to night-migrating birds because the structure extends across a large acreage of sky.  
1521 Graybar Lane, Nashville.

JOHNSON CITY.—On the morning of September 29, 1957 I visited the area in the vicinity of WJHL TV-Tower in Johnson City. A steady down-pour of rain preceded my visit all during the afternoon and early part of the night. A moderate wind had been blowing from the northeast as nearly all the birds were lying to the southwest of the tower. The road and parking area were littered with crushed carcasses, many disfigured beyond identification. Those which I thought might be identified, I picked up and brought home and spread them out to dry before attempting to sort, count and identify. Two hundred fourteen birds of twenty-nine species were in this lot while those remaining represented a slightly larger number. Not all of the birds had been killed the preceding night as judged by their condition but most had met their fate on one or the other of the two preceding nights.

The 29 species identified was one less than the casualty list at the same location on the night of October 6-7 1954 (see THE MIGRANT 25: 65-68, 1954). The species with the numbers of each identified were as follows: Pied-billed Grebe, 1; Traill's Flycatcher, 1; Catbird, 1; Wood Thrush, 5; Swainson's Thrush, 12; Gray-cheeked Thrush, 4; Yellow-throated Vireo, 3; Red-eyed Vireo, 57; Philadelphia Vireo, 1; Black-and-white Warbler, 1; Tennessee Warbler, 15; Orange-crowned Warbler, 1; Parula Warbler, 2; Magnolia Warbler, 17; Cape May Warbler, 1; Black-throated Blue Warbler, 8; Blackburnian Warbler, 13; Chestnut-sided Warbler, 13; Bay-breasted Warbler, 14; Ovenbird, 26; Kentucky Warbler, 1; Yellow-throat, 2; Yellow-breasted Chat, 1; Hooded Warbler, 6; Wilson's Warbler, 1; American Redstart, 3; Scarlet Tanager, 1; Summer Tanager, 2 and Rose-breasted Grosbeak, 1.—LEE R. HERNDON.

## FALL WATER BIRDS AT CHATTANOOGA

We have had a thrilling season with some rather astonishing observations, particularly of shore birds and terns. Regular observations with records for the area cover a period of 5 years. Some of these records are due to more frequent coverage of sites known to have good possibilities. Only weather conditions can account for the 10 species of shore birds seen at one time at the location where conditions are usually unfavorable in the fall. The birds found at this location on 9-22 (about a mile from the city limits) had obviously arrived within the past few hours. They were extremely hungry and could be approached within a few feet. They were also very active and very noisy and pugnacious to each other. We visited the spot 3 times during that day and there was no change in behavior, number, or variety. Twenty-four hours later they were back to normal behavior and attempts to get close enough for moving pictures were unsuccessful.

Excessive precipitation totalling 11 inches from September 1 to 7:30 p. m., September 28 caused overflow of creeks, flooding of fields and enlargement of normally damp spots. It is interesting to note that at Long Savannah Creek during this period, heavy rains caused decrease in the mud flats, and observations were not as good as at other places where favorable conditions were created very suddenly.

The following comments pertain to the entries in the table of the same title and bearing the same letter designation.

- a. Earlier than previously recorded fall date and in larger numbers.
- b. Recorded earlier and later and in larger numbers.
- c. First recorded 8-5-56.
- d. Wilson's Plover (*Charadrius wilsonia*) — One individual of this species was approached to within 30' on 9-22-57. It was with the group of 10 species of shore birds found at one location near the city limits. The 20X telescope was used to confirm the identification, though in this case it was not needed.

(Note: this is the first record of this species for the state. Ed.)

- e. Black-bellied Plover (*Squatarola squatarola*). — Two of this easily identified species were found on 11-2-57 at Hiwassee bridge on Highway 58, which crosses the Hiwassee river 34 miles northeast of Chattanooga. The B&L 20X telescope simplified identification of these two birds.

f. Ruddy Turnstone (*Arenaria interpres*). — On September 24, chapter members met at Chickamauga Dam at 5:45 p. m. for a brief field trip and picnic supper. The B&L spotting scope with a 20x lens was set up to observe the few terns left from a group of 200 (4 sp.) seen there two days earlier. About ten terns were perched on a pile of boulders near mid-stream, a short distance below the spillway.

As I took a first look to identify the terns for the benefit of several novices and visitors, a small, dark-backed, chunky bird flew to the rocks and alighted, in the manner of a Spotted Sandpiper. However, even in flight, an unusual tail pattern was evident. A look at the breast showed the markings of an immature or fall Ruddy Turnstone. Hardly believing my own snap judgment, I had it confirmed immediately by Dr. Wilbur K. Butts of the University of Chattanooga who is an expert on field marks, and by my husband who has seen many Ruddy Turnstones with me at the coast.

Either the terns resented the turnstone or it was uneasy in their presence because several times it moved, apparently with reluctance, from rock to rock (sometimes on the back side where we could not see it for a minute or so). On one of these movements the tail was seen and described orally while someone else compared the description with the plate showing a turnstone in flight.

After about ten minutes, another observer saw the bird leave the rocks but was unable to follow it over the water. The shore on both sides of the river is riprapped for some distance both above and below the dam, and one short area at the foot of a boat ramp is pebbly, so the bird probably didn't go far away.

(Note: This is the first Tennessee record for this species. Ed.)

g. Earliest fall date by 8 days.

h. First and second records for the area.

i. Only two previous records; 11-2-52 and 5-1-55.

j. Largest number previously recorded, 18.

k. Dunlin (Red-backed Sandpiper) (*Erolia alpina*). — A flock of 34 small sandpipers on 11-2-57 at the Hiwassee bridge, was first thought to be Pectoral Sandpipers as we had seen as many as 30 at one location. After following them back and forth along a mudbank and having them flit away several times, we finally got down on hands and knees and stalked the group with the telescope until it was possible to ascertain the identifying field marks, particularly the long bill. We had seen many of these in Florida, earlier in the year.

l, n and p. For details of first observations, see THE MIGRANT 28, 41, 1957.

m. Forster's Tern (*Sterna forsteri*). — Until 9-22-57 it was never possible to make a positive identification of this species because of distance. However, on this date one, and possibly two, were easily identified in a mixed group of terns perched on boulders in the middle of the river a few feet below Chickamauga Dam. On 9-27 two were identified by head and wing markings.

o. One positively identified. The only previous record was on 8-5-56.

MRS. E. M. WEST, 2914 Haywood Ave., Apt. 1-D, Chattanooga 5.



## OBSERVATIONS AT A FISH HATCHERY

Recent abandonment of a commercial fish hatchery where the Kingsport Bird Club has watched shore and water birds suggested comment on the locale and our observations there during the past five or six years. In the spring of 1957 the hatchery operations were moved some eight or nine miles to a site six miles east of Boone Lake on the airport road, because water needed by the growing community surrounding the first location could no longer be supplied to the hatchery in sufficient quantity in dry weather to augment the stream dammed to fill the ponds where goldfish were bred.

The nearly ideal conditions for observation of water and shore birds provided by the former hatchery were first appreciated by Mrs. Adele West. The area was easily accessible by car, which was its first advantage over the reservoir on Bays Mountain. The grounds extended roughly north and south about half a mile; two large ponds of more than an acre lay above a dam, and ten smaller ponds of assorted sizes varying from thirty to perhaps one hundred and fifty feet square bordered a small stream in a ravine along a steep wooded hillside. It was possible to walk along the margins of all the ponds. In rotation the smaller ponds were drained, cleaned and filled. The mud flats of the emptying ponds brought shore birds in spring and fall migrations. The fish lured herons, kingfishers and Osprey. Many insects, probably attracted to the ponds as a hatchery for their larvae, in turn attracted insect-eating swallows. Ducks in ever-shifting numbers and species occupied the ponds from about the second week of September through April and even the first week of May. Thus, this fish hatchery provided unusual conditions for close inspection of birds usually tantalizingly far away from the observer.

The records of The Kingsport Bird Club, which was organized in 1949, show twenty birds whose habitat is a fresh water area observed that year at the fish hatchery: Pied-billed Grebe, Great Blue Heron, Green Heron, Canada Goose, Mallard, Black Duck, Blue-winged Teal, Lesser Scaup, Osprey, Spotted Sandpiper, Solitary Sandpiper, Lesser Yellowlegs, Pectoral Sandpiper, Least Sandpiper, Semi-palmated Sandpiper, Ring-billed Gull, Rough-winged Swallow, Barn Swallow, Common Snipe and Belted Kingfisher. Of these twenty, three species, Osprey, Pectoral Sandpiper, and Semi-palmated Sandpiper, were observed only at the fish hatchery. In 1950 the Kingsport Club added six species to the twenty observed in 1949: Black-crowned Night Heron, Ring-necked Duck, American Coot, Semi-palmated Plover, Greater Yellowlegs, and Bank Swallow. Of these six the Greater Yellowlegs and Bank Swallow were observed only at the hatchery.

As the years passed the list of birds increased. It is possible that the members of the Kingsport Club became better observers and spent more hours at the hatchery. It is probable that the filling of two TVA lakes, Patrick Henry and Boone, brought to the Kingsport region a greater variety of water and shore birds for greater lengths of time. Whatever the explanation, our record for 1952 shows the addition of three new species: Little Blue Heron, Canvasback, and Redhead. The Little Blue Herons were seen in different areas by a number of observers from the middle of August through the second week in September. In 1953 Common Loon, A. Widgeon,

Common Goldeneye, Bufflehead, Common Merganser, Caspian Tern, and Tree Swallow are first entries. Of these seven additions, only the Common Loon was seen outside the Fish Hatchery. Additions to our list in 1954 were: Pintail, Red-breasted Merganser, Dunlin, and Bonaparte's Gull. By 1955 the list of birds we could hope to see around the fish hatchery included Gadwall, Shoveler, Greater Scaup, Hooded Merganser, Sora, American Woodcock, Herring Gull, and Black Tern. The Shoveler was first seen at Warriors' Path State Park on March 13 and 14 by Howard Young and Thomas Finucane. The Black Tern, seen on May 12 (TF) was the second record for the area and the only observation since that of Mrs. Adele West on July 28, 1948. (MIGRANT: 20, 17, 1949) In 1956 the Kingsport record expanded to include four additions: Horned Grebe, week of Feb. 12; Blue Goose, second week of Nov.; Wood Duck, in April and May; and Western Sandpiper, May 12. The Western Sandpiper was seen by Thomas Finucane, Spencer Meeks, and George Rodgers. In 1957 we added Red-throated Loon to the list. Nine years of intermittent observations by the Kingsport Club increased the list of birds observed and observable at the fish hatchery from twenty species to not less than fifty-four. This still-growing list of species of waterfowl and birds preferring areas with some expanse of water indicates the contribution made by the hatchery to the records and the pleasure of Kingsport bird watchers.

I shall now include a few lists of these birds seen on quick visits by one observer on one day during spring and fall migrations of the past few years.

In my notes for Friday, Oct. 16, 1953, I find five species of water-loving birds observed at the hatchery. The autumn of 1953 was dry and warm; afternoon temperatures were in the 80's; the last previous rain was Sept. 25. The upper ponds were very low with dry shores. In about thirty minutes I saw Great Blue Heron (1), Canada Geese (7), Common Merganser (2), Common Goldeneye (6), and Belted Kingfisher (4).

On Sept. 18, 1954 I recorded at the fish hatchery the following birds peculiar to that locale at that season: Green Heron, Blue-winged Teal, Semipalmated Plover, Spotted Sandpiper, Solitary Sandpiper, Lesser Yellowlegs, Pectoral Sandpiper, Least Sandpiper, and Chimney Swift.

Two sample days during spring migration will illustrate the wealth of birds displayed for observation. Wednesday, March 16, 1955 has eight entries. It was a typical March day in this region, with daffodils and forsythia in full bloom, Flickers doing their courting dances, and Song Sparrows gathering nest materials. On the fish hatchery ponds were: Horned Grebe (1), Pied-billed Grebe (4), Lesser Scaup (100), Greater Scaup (2), Common Goldeneye (1), Common Merganser (1), Red-breasted Merganser (2), and Bonaparte's Gull (4).

The record for April 6, 1954 caught perhaps the peak in number of species congregated at the fish hatchery. About nine-thirty, I recorded bright sunshine, mourning cloak, swallowtail, and sulphur butterflies along with seventeen species of birds: Pied-billed Grebe, Green Heron, American Widgeon, Blue-winged Teal, Ring-necked Duck, Lesser Scaup, Bufflehead, Red-breasted Merganser, Marsh Hawk, American Coot, Greater Yellowlegs, Pectoral Sandpiper, Chimney Swift, Tree Swallow, Rough-winged Swallow, Barn Swallow, and Louisiana Waterthrush.

ANN HARNEY SWITZER, 1620 Fairidge Dr., Kingsport.

## THE 1957 CHRISTMAS SEASON BIRD COUNTS

By T. O. S. Members

The composite list of species for the count was 113 or two greater than last year. Reports from ten localities was the same as last year, the only difference being the substitution of Kentucky Woodlands National Wildlife Refuge for Johnsonville. The list has been equaled or exceeded on four counts, all within the past seven years.

Two of the species, Red-breasted Nuthatch and Pine Siskin, returned to the list while Red Crossbills were missed for the second season in succession after having been reported on twelve successive counts. Perhaps the shifting of the center of the census circle for the Great Smoky Mountains National Park could account for the absence of the Red Cross-bills from the list.

Two species occur on the list for the first time. They are: Upland Plover (Lebanon) and Spotted Sandpiper (Memphis).

In the table which follows the localities are listed from west to east. Under the heading "Information on the Counts" are given the locations and other pertinent data relative to the counts as supplied by the compilers. The species and number of individuals observed at each locality are listed in the table.

Species marked with an asterick (\*) in the table are mentioned in other paragraphs.

### INFORMATION ON THE COUNT

**MEMPHIS.** — (1953 areas generally; wooded bottomlands 23%, deciduous woods including city parks and cemeteries 22%, pastures, airfields, farms 22%, suburban roadsides 30%, rivers edge 3%).—December 22; 7 a. m. to 5:30 p. m., fair; wind S, 0-8 mph. Twenty observers in 9 parties. Total party-hours 86 (56 on foot, 30 by car); total party-miles 190 (49 on foot, 141 by car). Total 82 species, 3,510,074 individuals. The Spotted Sandpiper, Least Sandpipers, and Catbird, examined leisurely (Mrs. BC, WLW, JR, GP); the Spotted a first winter record, 2 Leasts at same pond December 14 (BC) (2d Memphis Count record). Woodcock, (1st Memphis Count) singing (BC, EP); Rough-legged Hawk (RDS, HHW). Day counts dropped; estimates, coming in to Gragg School roost, were: Starling 400,000; Redwinged Blackbird 250,000; Rusty Blackbird 2,000; Common Grackle 2,500,000; Brown-headed Cowbird 350,000. (About 25,000 (majority Starlings) at Elmwood Cemetery). White-throated Sparrows totaled 1533. Mr. and Mrs. Ben B. Coffey, Jr., John T. Bigham, Mary Davant, Oliver Irwin, Luther F. Keeton, Edward M. King, Mrs. J. H. McWhorter, Nelle Moore, George Peyton, Jr., Edwin Poole, S. Jack Rini, Mrs. Arlo I. Smith, Lynn Smith, R. Demett Smith, Jr., Mrs. M. L. Torti, Dr. Wendell L. Whittemore, Dr. Harry Wilcox, Mr. and Mrs. Chas. E. Wilmeth.

**LEBANON** — (area same as in previous years) January 1, 1958; All Ducks and most Mourning Doves in feeding areas wild life refuge, Old Hickory Lake. Lone Upland Plover down lake below refuge. Starlings — everywhere — in flocks.

Observers — Margaret Campbell, Mildred Bouton, Mary Wharton, Mary Frances Knight, John M. Drennon, Sam B. Gilreath, Dixon Merritt.

KENTUCKY WOODLANDS NATIONAL WILDLIFE REFUGE, Ky. (same area as in previous years). — Dec. 28; 5:30 a. m. to 4:30 p. m. Cloudy to partly cloudy in morning, clear in afternoon; temp. 37° to 46°; wind S. to Sw. 0-7 m. p. h. Twelve observers in six parties. Total party-hours, 30 (22 on foot, 8 by car); total party-miles, 80 (19 on foot, 61 by car). Evelyn Barbig, Howard Barbig, Christine Hancock, Hunter M. Hancock (compiler), Ben Holdridge, Jr., Gerlinde Megow, Gerhardt Megow, William Mitchell, Clell T. Peterson, A. L. Powell, William T. Sledd and L. D. Thompson.—L. D. THOMPSON.—1220 Chickasaw, Paris, Tenn.

NASHVILLE — (same area as in past 7 years). — Dec. 28, 6:30 a. m. to 5 p. m. Mostly cloudy; fog at first, visibility fair thereafter; temperature range 41 to 44 deg. F.; wind s-w, 5-10 mph; ground bare, water in sloughs. 22 observers in 8 parties. Total party-hours 54 (25 on foot, 29 by car). Total party-miles 132 (26 on foot, 106 by car). Total 70 species, about 15,300 individuals. No snow this year to date but excess rain. Two Starling roosts in city not counted in above. Most blackbirds have gone further south. Night Herons were in trees on river bank. Ducks scarce, all but Ruddy were on Radnor lake. A Brewer's Blackbird was seen Dec. 21 (AFG). All 23 Fox Sparrows were together in clay pits. Le Conte's Sparrow observed at close range (Gleaves, et al). — B. H. Abernathy, Mrs. Wm. F. Bell, Mrs. Ovid Collins, Mrs. Leon DeBrohun, Chas. Farrell, Albert F. Ganier (compiler), Eddie Gleaves, Mrs. C. E. Goodlett, Helen Howell, Will T. Hon, Charles Hunt, Amelia R. Laskey, Geo. R. Mayfield Sr., John Ogden, Henry E. Parmer, Jennie Riggs, James Robins, Michael Tine, Ruth White, Geo. Woodring.

CHATTANOOGA — (same area as last year) Dec. 28, 1957; 8:00 a. m. to 5:00 p. m. Overcast, light rain; temp. 46 to 48 degrees; no wind. 7 observers in 4 parties. Total, 64 species; about 2,335 individuals. The following species are additions to our previous 4 Christmas counts: Double-crested Cormorant, Canvasback, Pintail, Gadwall, Ruddy Ducks, Brown-headed Cowbird, and Vesper Sparrow.

Observers — Mr. and Mrs. T. S. Barr, Mrs. Leon Cross, Mrs. H. L. Sliker, Mrs. Douglas Tunsberg, Mr. and Mrs. E. M. West (Compiler).

GREAT SMOKY MOUNTAINS NATIONAL PARK—Tennessee - North Carolina (7½ mile radius centered 2 miles south of Cades Cove and including Laurel Lake on north, Fontana Dam on south, Chilhowee Reservoir on west, and Spence Field on state line on east); open farm land, 15%, old fields, 25%, forests, 30%, reservoirs and stream courses, 30%. — Dec. 22; 6:30 a. m. to 5:00 p. m. Clear to partly cloudy; temp. 25 degrees to 65 degrees; wind mostly South, up to 25 mph; ground bare at all altitudes and well saturated; mostly open water; 32 observers in 10 parties. Total party-hours, 80 (67 on foot, 13 by car), total party-miles, 105 (47 on foot, 58 by car).

Snow Bunting — 8 birds were satisfactorily observed by Mrs. Harold Garlinghouse, Dave Highbaugh, and Paul Pardue (President (ETOS) on Bote Mountain Road, 1½ miles north of Thunderhead. The birds were flushed at close range and the large amount of white, especially on wings, was noted. This species has been observed on Roan Mt., 100 miles to the northeast, during the past few winters. The record is the first for the Great Smoky Mountains National Park.

Total, 62 species (1 additional subspecies); 2,483 individuals. Jane Biscoe, Mary Ruth Chiles, John Elson, Mary Enloe, Elizabeth French, Mr. and Mrs. Harold Garlinghouse, Vernon C. Gilbert, Jr., Dave Highbaugh, Phillip Huff, Audrey Kaiman, Bernard Kaiman, Mr. and Mrs. H. Frank Leonhard, Henry W. Lix, Amy Manous, J. T. Mengel, Mrs. Alice D. Miller, Mr. and Mrs. R. A. Monroe, Mrs. E. E. Overton, Paul Pardue, Mr. and Mrs. Kenneth B. Sanders, Mrs. Prince Sluder, Mr. and Mrs. L. F. Smith, Jr., Arthur Stupka, Dr. James T. Tanner, Dr. and Mrs. S. R. Tipton, Ralph J. Zaenglein, (Tennessee Ornithological Society, National Park Service, and guests).

GREENEVILLE — (same area as in previous years). Dec. 29, 1957; 6:30 a. m. to 4:00 p. m. Clear; temp. 26 to 30 degrees; wind 0 to 5 mph. 8 observers in 5 parties. Total party-hours 20, total party-miles 30 (5 on foot, 25 by car). Total, 53 species, about 11,644 individuals.

These are the Greeneville observers: Mrs. Willis Clemens, Mrs. Chester Darnell, Dwayne Darnell, Mr. and Mrs. Alfred Irvine, Mr. and Mrs. Richard Nevius, Mrs. J. B. White. The Darnells reported the Herring Gull. The Irvines reported the Vesper Sparrow.

KINGSPORT — (usual territory including southeastern slope of Bays Mountain); fields 30%, wooded area 40%, ponds, rivers and lakes 30%. Dec. 29; 7:30 a. m.,-5:30 p. m., clear; 28 to 45 degrees; water open; light wind 5-10 mph; 11 observers in 8 parties; total party-hours 32; total party-miles 134 (18 on foot, 116 by car). Observers: Thomas W. Finucane, John J. Finucane, Howard S. Young, W. E. Gift, Dr. and Mrs. M. J. Adams, William B. Hincke, W. C. McHorris, Helen Harris, Mrs. Merle Pike, Ann H. Switzer (compiler).

(Continued on page 67)

## THE 1957 CHRISTMAS BIRD COUNTS

	Memphis	Kentucky Woodlands	Nashville	Lebanon	Chattanooga	Great Smokies	Greeneville	Kingsport	Bristol	Elizabethton
Common Loon	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Horned Grebe	.....	.....	.....	.....	9	.....	.....	1	2	10
Pied-billed Grebe	1	.....	2	.....	10	13	.....	26	.....	2
Db-c. Cormorant	.....	.....	.....	.....	4	.....	.....	.....	.....	.....
Gr. Blue Heron	2	2	3	.....	1	3	6	2	2	.....
Bl-cr. Night Heron	.....	.....	21	.....	.....	.....	.....	.....	.....	.....
Canada Goose	.....	10,000	.....	.....	.....	2	20	.....	.....	.....
Mallard	105	1,136	6	1,875	125	24	.....	9	2	.....
Black Duck	.....	550	3	375	175	.....	5	2	.....	.....
Gadwall	3	.....	.....	125	2	.....	.....	.....	.....	.....
Pintail	12	.....	.....	.....	10	.....	.....	.....	.....	.....
Gr.-w. Teal	.....	.....	.....	50	.....	.....	.....	.....	.....	.....
Amer. Widgeon	.....	50	.....	50	10	.....	.....	.....	.....	.....
Redhead	4	.....	.....	.....	.....	.....	.....	.....	.....	1
Ring-nk. Duck	2	110	14	.....	.....	100	.....	28	.....	7
Canvasback	24	.....	14	.....	4	.....	.....	.....	.....	.....

Greater Scaup										1
Lesser Scaup	93	15	18			4				4
Bufflehead						1				1
Ruddy Duck			1		4	10				
Hood. Merganser					8	5				
Com. Merganser			1							
Turkey Vulture	45	1		10		7	12	4		
Black Vulture	7		5	7			9	7		
Sharp-sh. Hawk						1				
Cooper's Hawk	4	1	2			1				3
Red-tld. Hawk	17	9	4	3	3	6	1			
Red-sh. Hawk	5	4	3			1		1		1
Rough-lg. Hawk	1									
Golden Eagle		1								
Bald Eagle		12								
Marsh Hawk	2		1		1					
Sparrow Hawk	20	3	23	10	5		12	4	5	14
Ruffed Grouse						7				
Bobwhite	144	30	39	46	14	8	5		3	
Turkey						5				
Amer. Coot					1	150				
Killdeer	103	21	148	30	8	28	12	123		36
Amer. Woodcock	1									
Com. Snipe	35		2							
Upland Plover*				1						
Sptd. Sandpiper*	1									
Least Sandpiper	4									
Herring Gull	3	33	2		3		1	30		
Ring-bl. Gull	41	110	13		112					
Mourning Dove	136	69	183	5,000	230	45	62	28	26	78
Barn Owl							1			
Screech Owl	1			2			2			
Gr. Horned Owl	1	4	3	2						
Barred Owl	3									
Blt. Kingfisher	3	2	8			5	5	4		10
Yel.-sh. Flicker	101	48	50	15	9	10	7	2	3	16
Pil. Woodpecker	2	7	11	8	3	18	7	7	1	
Red-bel. Wdpkr.	80	46	31	10	13		5			2
Red-hd. Wdpkr.	46	4			3			1		
Yl.-bl. Sapsucker	16	14	17	7	1	7	2	4	1	5
Hr. Woodpecker	13	7	6	7	2	8	1		1	3
Dny. Woodpecker	49	33	66	13	13	19	29	13	6	19
E. Phoebe	1	1	2	4	1	12	2			4
Horned Lark	68	9	360	12		18	10	9		35
Blue Jay	580	52	57	21	51	26	34	44	24	73
Common Crow	147	35	1,200	106	41	254	10,000	74	20	311
Bl.-cp. Chickadee						*				
Car. Chickadee	137	100	118	37	14	170	72	71	36	50
Tufted Titmouse	89	103	67	34	20	44	45	51	19	27
Wh.-br. Nuthatch	1	18	7	4	13	2	3	10	2	1
Red-br. Nuthatch						10	3			1

Brown Creeper	1	4	2	2	.....	2	.....	1	1	2
Winter Wren	5	1	3	5	1	4	3	.....	.....	4
Bewick's Wren	1	.....	6	13	2	.....	2	1	.....	1
Carolina Wren	86	30	106	16	16	26	53	36	6	56
Mockingbird	186	13	126	34	43	8	42	61	13	83
Catbird	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brown Thrasher	65	10	.....	.....	.....	2	.....	.....	.....	.....
Robin	492	8	355	20	57	65	211	19	.....	21
Hermit Thrush	17	1	4	1	.....	5	.....	.....	.....	4
E. Bluebird	12	26	87	63	31	49	35	27	9	26
Gld.-cr. Kinglet	44	8	11	.....	2	135	1	3	.....	4
Rub.-cr. Kinglet	8	.....	1	2	1	3	.....	1	.....	1
Water Pipit	.....	.....	7	.....	.....	.....	.....	.....	.....	.....
Sprague's Pipit	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cedar Waxwing	46	1	36	.....	25	12	.....	7	13	310
Lgr.-hd. Shrike	47	.....	15	.....	2	.....	11	2	.....	8
Starling	400,000	55	9,500	3,000	300	124	88	10,000	1,000	409
Myrtle Warbler	44	14	76	12	11	10	15	89	.....	151
Pine Warbler	.....	.....	.....	.....	2	.....	.....	3	.....	.....
House Sparrow	555	60	300	50	25	20	60	86	62	119
E. Meadowlark	538	206	147	22	223	50	76	9	13	66
W. Meadowlark	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Redw.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Blackbird	250,000	108	44	20	.....	2	1	.....	.....	.....
Rusty Blackbird	2,000	.....	.....	.....	100	.....	.....	.....	.....	.....
Brewer's Blackbird	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
Com.Grackle	2,500,000	500	100	16	2	.....	7	.....	.....	.....
Br.-hd.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cowbird	350,000	.....	9	15	2	.....	.....	.....	.....	.....
Cardinal	696	220	360	50	53	25	61	63	34	131
Purple Finch	31	45	51	16	18	44	17	1	6	11
Pine Siskin	.....	.....	.....	.....	.....	358	5	.....	.....	.....
Amer. Goldfinch	74	35	530	50	229	116	172	41	2	125
Ruf.-sl. Towhee	116	47	85	6	32	5	24	25	3	16
Savannah Sparrow	55	.....	3	.....	.....	.....	.....	.....	.....	2
Le Conte's Sparrow	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Vesper Sparrow	.....	2	.....	.....	1	.....	1	.....	.....	.....
Sl.-col. Junco	413	150	276	46	90	182	26	50	20	85
Tree Sparrow	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Chipping Sparrow	.....	5	.....	.....	.....	.....	.....	.....	.....	.....
Field Sparrow	357	89	126	.....	34	102	133	18	7	71
Harris' Sparrow	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wh.-cr. Sparrow	19	.....	94	3	.....	.....	47	2	3	17
Wh.-th. Sparrow	1,538	77	127	12	78	55	156	58	4	105
Fox Sparrow	36	8	23	.....	.....	1	.....	.....	.....	1
Swamp Sparrow	139	.....	44	.....	3	5	.....	.....	.....	.....
Song Sparrow	270	60	116	.....	27	43	24	39	10	57
Snow Bunting*	.....	.....	.....	.....	.....	8	.....	.....	.....	.....
<b>Total Species</b>	<b>82</b>	<b>63</b>	<b>70</b>	<b>51</b>	<b>64</b>	<b>62</b>	<b>53</b>	<b>50</b>	<b>34</b>	<b>54</b>

BRISTOL — same area as in previous years, Dec. 28. Participants: Mrs. Judith Abbott, Mr. and Mrs. R. T. Krepela and Mr. and Mrs. E. Dickey.

ELIZABETHTON — same area as past 12 years; lakes 5%, stream borders 60%, woodlands 20% and open fields 15%. — Dec. 28; 7:30 a. m. to 5:15 p. m. Overcast to cloudy to rain all afternoon: temp. 40° to 46°; wind 0 to 10 m.p.h. Eight observers in 5 parties. Total party-hours 33 (12 on foot, 21 by car); total party-miles 122 (12 on foot, 110 by car). Two species were new to our census list. They were: Greater Scaup and Bewick's Wren. Observers — J. C. Browning, Ed Davidson, Glenn Eller, Harry Farthing, Ray Garrison, Lee R. Herndon (compiler), Mrs. Ruth D. Hughes and Roby D. May, Jr.

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## ROUND TABLE

NIGHTHAWKS IN DECEMBER — An unprecedented late record of this species (*Chordeiles minor*), was made at Nashville on Dec. 8, 1957 and on the following days. While observing the ducks on Radnor (85 acre) Lake, six miles south of the city, a low-flying bird crossed the field of vision of my binoculars which I was surprised to identify as a Nighthawk. I watched the bird for about ten minutes as it flew back and forth across the waters surface and then decided that such an unusual record should be witnessed by others. The time was 11:30 a.m. so I drove home for lunch and phoned several other TOS members.

Returning at one o'clock, I was soon joined by Mrs. Amelia Laskey, Miss Jennie Riggs and Mr. Albert Ganier and we watched the birds for two hours, finding there were now three of them present. They were feeding over the surface of the lake at a height of from one to three feet and at a distance of from two hundred to six hundred yards from where we stood. Twice, the birds flew within a hundred feet of us, showing clearly the brown coloration and white wing-spots.

While no insects were visible, we assume there must have been some above the water surface or emerging from it. The lake was abnormally high, being backed up into low willow woods and this backwater may have floated mosquito larvae out into the lake. Bent's Life Histories (USNM Bul. 176, p226) records examination of the stomach contents of two Nighthawks which contained 300 and 500 mosquitoes respectively. In this connection, I saw six Phoebes perched on low limbs along the shore. Several times, each of these would lash out 20 to 40 feet over the water, presumably to catch an insect.

On the following day, Dec. 9, I visited the lake at noon and observed only one Nighthawk skimming the surface. Mr. Ganier came out at three o'clock and found three birds feeding together. At four p.m., after the sun had sunk behind the surrounding hills and the thermometer had read 37 degrees, observation showed the birds had left, supposedly to find a roosting place. On Dec. 10, Mrs. Laskey visited the lake at 10 a.m. and found two present, with the temperature at 42. On Dec. 11, at noon, I found no birds present. The cold wave of the past few days had driven the morning temperature down to 15 degrees F. and these belated transients had probably ridden the brisk northwest wind southward during the night.

We think these late individuals probably came from the northern part of their breeding range and that they were thus hardened to cold temperatures. Most of the Nighthawk migration through Nashville is over by the first of October, and our two latest previous records are Oct. 17, 1917, eight, (Monk) and Oct. 26, 1955, one, (Sue Bell). Bent gives the winter home of this species as South America, south of Panama.—HENRY E. PARMER, 3800 Richland Ave., Nashville 5, Tenn.

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**FRANKLIN'S GULLS AT NASHVILLE** — Bush's lake lies only one and three-quarter miles north of the State capitol and is located on a bottomland truck farm in a bend of the Cumberland river. The farm is now covered with turnip greens in various stages of development. On November 19, 1957, while checking the waterfowl on the lake, I observed a flock of seventeen gulls standing on grass-grown land about fifty feet from the water. I managed to drive within fifty yards without alarming them. There were fourteen Ring-billed Gulls, one year-old Herring Gull and at the end were two gulls smaller than the Ring-bills. The latter were very dark grey on the sides and rear of the head and they had black legs. They were identified as Franklin's Gulls (*Larus pipixcan*) in fall plumage. On Nov. 25 I found a total of four there with the other gulls but on Nov. 27, only one Franklin's was found. Mrs. Amelia Laskey and Mrs. Catherine Goodlet and I observed the latter bird for some time thru a 30X telescope as well as with binoculars. It was standing on land in the sunshine at about fifty yards distance. This is the first Nashville record.—HENRY E. PARMER, 3800 Richland Ave., Nashville 5, Tenn.

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**RED-HEADED WOODPECKER STORES PECANS** — It is well known that the Red-bellied Woodpecker is an indefatigable storer of wild pecans in the fall but I do not find this habit reported for the Red-head. At Indianola, Miss., on Nov. 29, I observed one of the latter to fly from a pecan tree to the edge of the gable roof of a dwelling and bearing a pecan in its beak. It crept along the sloping roof-edge and finally drove the pecan into a crack formed over the sheathing where one of the asphalt shingles lapped the shingle below it. The bird then returned to the tree for another and was back to repeat the trick within three minutes. I watched it make four such trips. On its fifth trip it flew off in another direction with the pecan so I suppose some similar hiding place had previously been located there. Nuts I picked up under the tree showed they were of the small "wild" variety and measured  $1 \frac{3}{16}$  inches long and  $\frac{5}{8}$  inches thick.—ALBERT F. GANIER, Nashville 12, Tenn.

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**OLD HICKORY WILDLIFE REFUGE** — The bird refuge area consisting of 3,400 acres at Old Hickory Lake has a dearth of ducks. The best estimate is that not more than 3,000 of all species are present as compared with 20,000 at this time last year. Our guess is that the ducks are staying farther west where large areas, normally dry, are now flooded. An influx is expected in February and March. Most of the feed—500 acres of buckwheat, 100 acres of millet and 70 acres of corn—will still be good and will be needed.

Despite the dearth of ducks, the feed has not gone unused up to this time. The number of Mourning Doves frequenting the area is three times as large as last year. This was true throughout the hunting season. Practically the same is true of Bobwhites. Most of them appear to stay within the refuge area and a large increase in nesting birds of both species is expected next spring.

Interesting visitors—from late summer until their departure for the south—were swallows, 5,000 of them. About three-fourths of them were Cliff Swallows, the rest Barn Swallows. Not many of either species were ever noted here before.—DIXON MERRITT, Lebanon.

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UPPER CUMBERLAND CHAPTER T.O.S. — Chattanooga's nose is broken. There is a new baby—the Upper Cumberland Chapter at Cookeville. It was organized in October as a club and, at the November meeting, voted unanimously to affiliate with the TOS. It started out with 25 members.

The officers are: president, Ralph L. Dunkel; secretary-treasurer, Mrs. C. P. Snelgrove; curator, Paul L. Hollister. Dr. Hollister is professor of biology and Mr. Dunkel of engineering at Tennessee Polytechnic Institute. Mizer Richmond is chairman of the program committee, Mrs. J. D. Haile of membership and Mrs. Amy Johnson of junior membership.

The new chapter plans to cover both the Highland Rim and the Cumberland Plateau areas adjacent to it, something that has not been done in the history of TOS.

Dixon Merritt, vice president for Middle Tennessee, was present at the November 4 meeting to explain the workings of TOS. Your editor extends to you a most cordial and hearty welcome and will be expecting to receive material for publication in THE MIGRANT.—DIXON MERRITT, Lebanon.

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CHICKADEE FEEDING HABITS — Early this summer a pair of Chickadees set up housekeeping in a nearby apple tree. Preliminaries over, the new parents began the furious task of feeding the family. Our peanut-butter-stuffed feeder, mounted on the kitchen window sill, provided an easy source of supply. The overworked birds made full use of it and scolded us noisily whenever it was time for a refill. Before the family was raised, we had disposed of two one-pound jars of peanut butter, mostly to the industrious Chickadee couple.

About the time the first jar was finished the lusty infants became more discriminating and demanded variety in their menu. The parents located a source of fat, green worms, which seemed to satisfy the youngsters for a while, but not for long. The little gourmets grew daily more sophisticated. In desperation the adult birds hit upon a novel plan. On the way to the nest with a green worm in the mouth, they stopped by the feeder, rolled the worm in peanut butter, and flew home with their pig-in-blanket. Does this represent a new high point in Chickadee diet?

We did not discover whether father or mother invented this diet, but we watched each of them prepare it many times. Occasionally father was unable to resist temptation and ate his at the feeder. Then he had to back-track for another worm. Mother was never guilty of this weakness of character.—JOHN W. TAMBLYN, Kingsport.

## WHOOPING CRANE POSTAGE STAMP ISSUED

A new stamp commemorating the gallant struggle for survival of the small band of rare Whooping Cranes was released by the U. S. Post Office Department on November 22, 1957. The three-cent stamp which depicts a family group of Whooping Cranes, was designed by Robert Hines of the Department of Interior. The green, blue and yellow stamp was released simultaneously in New York City and Corpus Christi, Texas, on the first day of sales.

Postmaster General Summerfield announced the stamp, saying that "whooping cranes have become international symbols of conservation, having dwindled from thousands in number to a small flock of approximately thirty birds." Corpus Christi, Texas, was chosen because it is close to the Aransas National Wildlife Refuge where the cranes spend each winter.

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### EDITORIAL

The Fifth Edition of the American Ornithologists' Union Check List was published in 1957 after much careful study and thoughtful consideration of the mass of material to be reviewed. The Fourth Edition was published in 1931. Much new material has become available during the intervening years because of the increase in both professional and amateur ornithologists. Many of the changes have been of a minor nature, such as the spelling of common names or with reference to hyphenization. Of greater significance has been the omission of common names for sub-species. For example the "Purple" and "Bronzed" Grackle have become Common Grackle while "Carolina" Junco is given subspecific status and placed under Slate-colored Junco. Both Black-capped Chickadee and Carolina Chickadee are given species status, and therefore listed. Some errors and omissions have been referred to in reviews of the Check List. An omission I found in the index was Dunlin (Red-backed Sandpiper). Neither name occurs in the index. Undoubtedly we will be somewhat confused by the changes but since the list has been prepared for the purpose of eliminating confusion and promoting uniformity we should conform to the listing set forth as quickly and completely as possible. All contributors to THE MIGRANT are urged to follow this listing as nearly as possible. In case you do not have access to a copy, please do not allow that to deter you from contributing. Your editor will attempt to make all lists conform in so far as is possible, beginning with the current issue.—LEE R. HERNDON

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