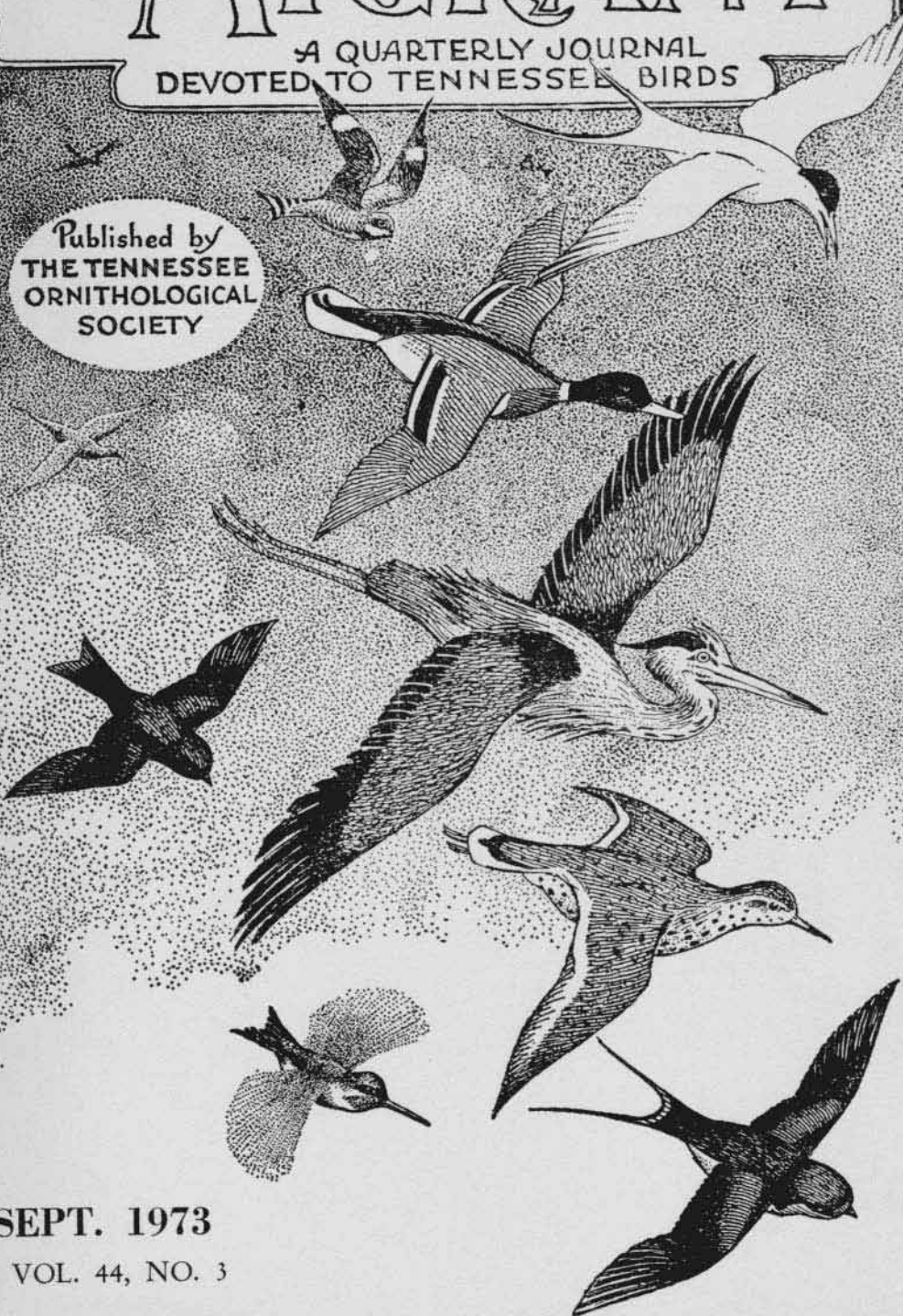


THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
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ORNITHOLOGICAL
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ALBERT F. GANIER

The September issue of *The Migrant* is dedicated to Albert F. Ganier who has given so much to the Tennessee Ornithological Society and to the State of Tennessee.

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NO. 1

THE WILD LIFE MET BY TENNESSEE'S FIRST SETTLERS

ALBERT F. GANIER

Two hundred years ago and westward from the southern Appalachian mountain chain, lay a wilderness of woods and waters unknown except for brief accounts of a few hardy explorers who had ventured into it.

Virginia, long a crown colony was content to leave it to the Indians. North Carolina felt no such restraint and as soon as the Revolutionary War was won and with land grants due them for their war services, eagerly penetrated westward and amid great hardships, settled both Tennessee and Kentucky.

So busy were they with fighting Indians and predatory animals and existing among great discomforts, that they left but little record of the bird and other animal life except as it may have served as food for their existence.

Bits of information gleaned from here and there, from records of old land grant descriptions referring to game trails, salt licks, buffalo wallows, stream names, etc., diaries and journals of early travellers or hunters, and my own experiences, are here gathered, to piece together the subject of this paper.

To any reader who may wish to go back of Wilson's day (1810), there is a bibliography covering the writings of early travellers who briefly mentioned the avifauna. It was reported by Dr. Elliot Coues (1842-99) whom the writer regards as America's greatest ornithologist. This bibliography is a 217 page Appendix of his *Birds of the Colorado Valley*, 1878, U.S.G.S., Washn., D. C., pp. 1-803, and continues thru 1878

It might be well at this point to tell of the first naturalist to visit Tennessee and Kentucky, Andre Michaux (1746-1802), who traveled from Charleston, S. Car. He came by way of Greenville, Knoxville and Bledsoe's Lick, reaching Nashville on 16 June 1795. (Thwaite, v. 3) He spent a week in the little frontier town, calling on several citizens, botanizing and exploring. On 21 June, the day before leaving, he entered in his journal the birds and quadrupeds he had found in the vicinity, as follows. Birds: Robin, Cardinal, Tetra (Grouse-G), *Lanius Tyranus* (shrike) rare, quantities of the genu *Muscicapa* (warblers, vireos, flycatchers), a few species of the genus *Picus* (woodpeckers), Wild Turkeys and owls of the large species; Quadrupeds: Buffalo, Bears, Wolves, Elk, Beaver, Dwarf Deer (White-tailed), Muskrat, small Grey Squirrels. Some of the large mammals, such as Buffalo may not have been seen by him there at

that date but could have been included from reliable information given him. His entry on 21 June says he "killed and skinned some birds". These were probably made up as flat skins to enable packing.

On 22 June (Monday) he rode northward, by way of Mansker's Station (Goodlettsville), Danville, Ky. and Lexington, arriving at Louisville on 21 July. From there he later traveled down the Ohio to visit the French settlements in the Louisiana Territory on the west bank of the Mississippi, in the interest of his government.

Travel at that time was by rowboat with oarsmen so, thus returning, he found himself, on 20 December 1795 at the mouth of the clear and peaceful Cumberland river, of which nothing as yet had been written. The river led to Nashville, 191 miles upstream; Michaux must explore it, so he re-hired his crew for the mid-winter journey. He mentions passing "the Great Eddy", a treacherous river bend where Eddyville later sprung up, and moving on upstream to Little River (now Cadiz, Ky.), where a sudden rise of the river caused a halt and camped for five days. While there he wrote down a list of the birds and quadrupeds seen up to now, as follows: Birds: Ravens, Owls of the large species, green Paroquets with yellow heads, of the small species, Jays with red heads and red throats (male Sapsuckers-G). He had previously mentioned "killing and stuffing a Canada Goose with a white head"; this was probably a Blue Goose. Quadrupeds: Buffalos, Bears, Deer, Raccoon, Opossum, Grey Squirrels, Beaver, Otter, and Muskrat, the last three species very rare. Throughout his journal he makes frequent mention of the trees and shrubs identified and mentions the medicinal qualities attributed to them and other plants. Michaux's primary interest was botany.

On 5 January he resumed the journey; mentions passing Yellow creek and further on, the Red-painted Rock, on the north bank of the river four miles below Clarksville. A later explorer described this high cliff as bearing red marks and designs made by prehistoric inhabitants. He arrived at Clarksville (mile 126) on 15 January, "The most westerly and remote of the Cumberland settlements." The river again began to rise rapidly so Michaux decided to pay off his boatmen and ride horseback into Nashville. It is regrettable that he changed his plans, for history was thus robbed of a chronicle of the last 65 miles of the trip by river, from Clarksville on up to the Cumberland settlement at Nashville.

At Clarksville he remained for several days, exploring the area, buying a horse and preparing and packing his bird and botanical specimens. He then began to leisurely ride the last 55 miles of his journey, the trail finally leading into the White's creek valley where he "stopped with old man Frederick Stump", passed Heaton's Station, and after ferrying across the Cumberland, set foot again in Nashville on 19 January 1796.

Storing his collections there, he left within a few days for Lexington and Louisville, chiefly to gather final information for the French government. On this wintry journey, he lodged at the Big Barren river Ferryman's cabin and was put across the next morning. Caught in a heavy snowstorm, he nearly froze that night, wrapped only in his blanket. He had to ride back to the ferryman's to recuperate for a few days before proceeding. He returned to Nashville in late winter, then buying another horse on which to pack his collections, he left for Carolina on 25 February. He rode thru Goodlettsville

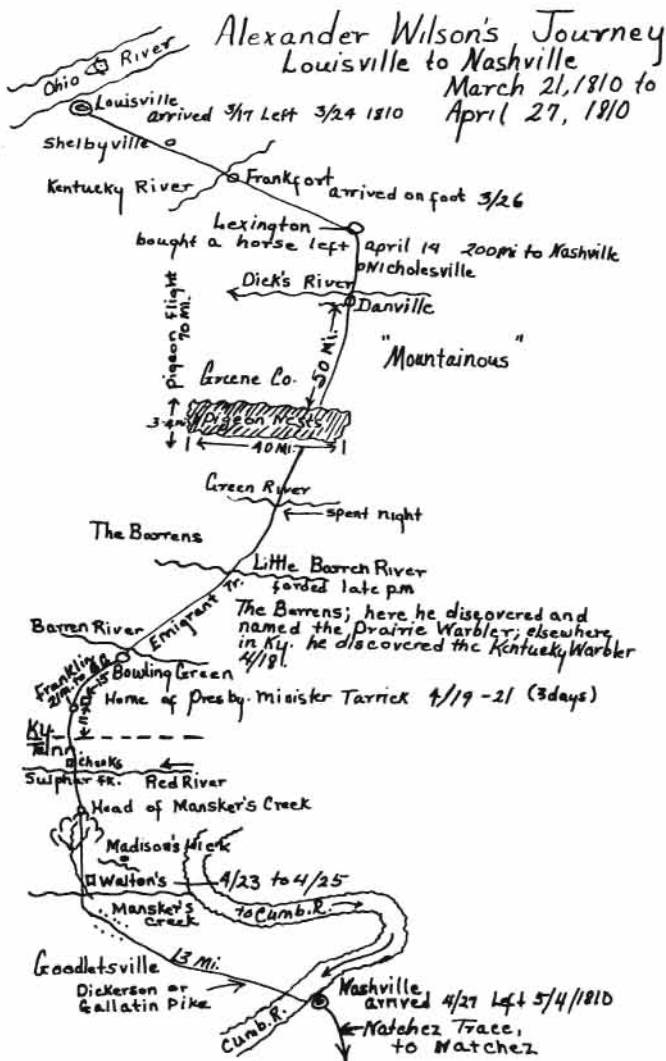
(Mansker's), Ft. Blount, Knoxville and Greenville, arriving at his home in Charleston the middle of April, 1796. Enroute to France, his ship was wrecked in a storm; Michaux survived with his botanical collections but his birds and quadrupeds went down with the ship. Michaux was a hardy and ardent naturalist and we can only regret that this first compiler of a list of birds of the region did not record them in greater detail.

No one greatly interested in birds visited Tennessee until Alexander Wilson (1760-1813), a dependable and careful ornithologist, traveled through Kentucky and middle Tennessee in the spring of 1880. After rowing down the Ohio river from Pittsburgh in a skiff, he disembarked at Louisville, later entering Tennessee, 38 miles north of Nashville, on 22 April. After fruitful explorations and discoveries, he passed out of the State, enroute to Natchez and New Orleans on 1 May. Many of his observations will be quoted further on, taken from his *American Ornithology* (1808-1814), from letters written enroute, and from his diary. The map on another page will show his journey as far as Nashville. He had carried with him, copies of the first two volumes of his work and he secured a number of subscribers enroute. On his return to Philadelphia he applied himself steadily to his task and to take a few short trips. He was a man of many talents and had remained single, feeling that he had neither time nor means for marriage. Working under steady strain, his health gave way and, as Audubon wrote at a later date, "he died under a printer's lash".

John James Audubon (1785-1851) collected and painted birds about Louisville, Ky. for several years prior to Wilson's brief stay there in 1810. He then moved down the Ohio river to Henderson, Ky., where he continued his "bird-work" until the mid 1820's following which, he went to London to secure a publisher. He did not work far from his base during these years except for a late November boat trip down the Mississippi in 1820 and brief trips to "The Barrens" in Kentucky previously explored by Wilson (Mengel 138-139). So far as known, he made no exploratory trips into Tennessee to learn of its bird-life. His sole contribution thereto was brief notes preserved from a flatboat trip while travelling down the Mississippi late in 1820. He crossed the Ky.-Tenn. line on 22 November and passed the Tenn.-Miss. line on 4 December, a period of 12 days. Because of numerous English-speaking settlements along the east shore, his notes are assumed to apply to Tennessee.

Thirty miles above Memphis, near the little town of Randolph, he visited the Second Chickasaw Bluff (high clay bluffs) overlooking the river and in describing them, he wrote that they were "perforated with thousands of holes which were the nesting places of the Bank Swallow". The writer and others decided to visit these bluffs in June 1941 to investigate but we found the holes weathered away and no Bank Swallows present. With characteristic persistence, one of our party, Ben B. Coffey, returned a few years later, visiting Chickasaw and other bluffs above Memphis. He succeeded in finding these swallows (*Riparia riparia*) nesting in three places, the most northerly being 15 miles west of Dyersburg.

Other of Audubon's notes made on this river trip will be found under the paragraphs applying to Paroquets and the Ivory-billed Woodpecker. No other of Audubon's notes survived his long stay in England and his seven volume *Birds of America* contained but few specific notes on the birds of this area that could be used in this article.



Of greatest interest to the early settlers was that largest of all Tennessee birds the WILD TURKEY (*Meleagris gallopavo*). They were found to be common all over the state and as a game bird provided excellent food. They were shot or trapped the year round. A full grown male, a "gobbler", could weigh as much as 25 pounds.

Briefly described, they stood on stout, long legs built for running, and by means of which they could elevate their heads high to watch for predators. They were capable of flying across rivers and into trees where they could roost safely from prowling animals. They produced numerous young, 9 to 15

from a single nesting. Their winter food in West Tennessee was the small wild pecans, easterly it was chiefly small acorns and beech nuts. Sufficient gravel was eaten to provide their gizzards with grinding material. During courtship, a strutting male was a majestic sight. With wings audibly dragging the ground, tail feathers erected and fully spread, all of his colorful body feathers also erected, his unfeathered head and neck covered with red and purple wattles of skin, and even a unique black beard upon his puffed-out breast, he strutted pompously before his admiring harem. The beard consisted of coarse black bristles, sometimes 9 inches long. The males plumage is iridescent bronze chiefly while other areas are rusty or purple.

In spring, the turkeys gather in small flocks, each led by a well matured male. By the end of May the females had stolen away to incubate on their well hidden nests and then to raise their young. The males then formed flocks of their own and in late summer, had to endure a vast and no doubt embarrassing moult. When the settlers bread gave out, they were said to have substituted the rather dry, white meat of the turkey's breast to go with their bear meat.

Trapping the birds was a favorite mode of securing them and the youngsters learned how to do this. A favorite method was to build a pen, 6 by 8, with top of woven cane. A trench was then dug in to its center to gain entrance and corn sprinkled along it, leading to the interior. On reaching the end, the turkey would hop up to the higher level and but rarely return through the tunnel-like trench. The settlers wives made fans from the turkeys spread tails and the last section of the wing served well as a brush to sweep the crumbs from the table. The stiff quills from the tail when properly trimmed with a sharp knife, became a good writing pen.

In Wilson's Ornithology (3:201-220) may be found an excellent account of the Wild Turkey at that period. The original Wilson chapter was revised and augmented about 1825, by Charles S. Bonaparte and used in subsequent editions. These fine birds would have become extinct in Tennessee but for the timely protection given the few remaining birds and restocking supervised areas with young ones from State game farms.

The PASSENGER PIGEON (*Ectopistes migratorius*) at times and in season, visited the pioneers in spectacular numbers and during its visitations was killed for food in vast numbers. I have not been able to find any acceptable evidence of its having bred in Tennessee. In winter, however, it ranged through all the Gulf states. It is a hardy and ancient species; the A. O. U. Check List states that its fossil remains have been found in Tennessee and in California. Place names in Tennessee testify to its former presence, such as Pigeon river, Pigeon creek, Pigeon Roost road (southeastwardly from Memphis), etc.

The largest breeding grounds were at the northern limit of its range, in Michigan and in Wisconsin. The nearest were in south-central Kentucky but in even earlier days two nesting colonies had been found in Mississippi.

From Wilson (2:253-261) and in a letter to his engraver, dated Nashville, 28 April 1810, comes the first information from Kentucky about the Pigeons. Leaving Louisville on 24 March 1810, he traveled on foot to Frankfort. During the afternoon, vast flocks of these birds passed for hours overhead moving southward, as he learned later, to their nesting grounds in Green County about

70 miles away. He remained in Frankfort and in Lexington until 14 April, then bought a horse and set out for Nashville, two hundred miles southwestward and at the end of the emigrant trail.

Two days later and fifty miles beyond Danville, he found himself riding through the east end of the vast nesting grounds of the pigeons about three miles across. By the inhabitants, he was informed that the grounds extended for forty miles westward, through Green county along the rough, wooded hills bordering Green river.

Pigeons were very early nesters and from his adhount we can judge that most of the young at the east end had already left the nests or had been "harvested" by the inhabitants. Immense numbers of nests were in the trees, including those that had been cut down, and the ground beneath was thickly covered with fresh ordure resulting from nesting activities. From interviews with the local pioneers, he was given detailed information of the pigeons breeding habits and they showed him the many trees they had cut down to get a vast number of squabs still in the nests. Wilson passed on southward through Tennessee, 22 April to 6 May, by way of the old Natchez Trace but makes no further reference to Pigeons during his journey until he reached and described a recently abandoned nesting colony on the Trace about 50 miles north of Natchez. The other Mississippi nesting colony, described by Gideum Linceum was on the east border of the State; a larger one on the Tombigbee River about 50 miles above Columbus, in 1874. (Schorger, 88, 93, 98, 105, 264).

In 1840, Audubon visited the Green county breeding grounds and reported it still as Wilson had described it 30 years before. He mentioned no other colonies extant in Kentucky at that time.

Fall and winter roosts were probably present each season in Tennessee but the only detailed account of such a roost in the State will be found in *The Migrant* for March, 1933. It was written by W. R. Manlove in 1900 and recounted his experiences as a youth while living on a nearby farm. This roost was located 6 miles north of Nashville and was located in wooded hills at the headwaters of White's creek. He observed and recorded their manner of feeding on the ground under the trees while advancing in a line, the laggards flying over the line and dropping down a few feet ahead. Gunners from the city came out at twilight and killed hundreds during the three weeks of their stay. This was during the fall of 1870, the last year they came.

A story of the last years of the Passenger Pigeon in the United States was published by H. P. Ijams in *The Migrant* for March 1932, 3:1-3, but gives no state records. The nearest other Pigeon locality near Nashville is Pigeon creek which flows into the Harpath river 2 miles above its mouth. This is 22 miles N-W of Nashville. It was so named by Thos. Molloy, pioneer surveyor in December, 1793, while surveying land grants #2984 and #2982 for himself, including this creek. He gave no details about the pigeons but his grants covered all the creek valley and if it were a nesting colony, it would have been a valued holding.

From west Tennessee, I find one reference to the former occurrences of wild pigeons roosting, near Brownsville, in Haywood county. Rhoads (p. 476) quotes Miles as saying they were present in large numbers in 1873 and again in 1881

but in smaller numbers. The last seen was in 1893 when one was shot from a flock of eight.

The beech forests of Tennessee provided very favorable feeding grounds during the fall and winter and the early inhabitants of the State were doubtless favored with occasional roosts. In such cases, as at Nashville, the settlers could be expected to raid the roost to vary their food supply.

One of the most unusual birds seen by Tennessee's earliest settlers, was the unique and colorful CAROLINA PAROQUET (*Conuropsis carolinensis*). They were bright green in color, with head and neck yellow all around and with forehead and cheeks orange. They remained in flocks, nested in colonies, and announced their presence with noisy chatter. The early settlers found them objectionable because they were destructive to fruit in their newly planted orchards and this in time brought about their complete extermination. When one of the flock was wounded, its distress call caused its fellows to circle about until all were killed. As fall and winter residents, they roosted together in hollow trees, those of large sycamores along streams affording the roomiest quarters and protection from owls.

While we know that wandering flocks were common in Tennessee during pioneer times, yet actual records have been hard to find. The earliest record found is that of Michaux who, on his paddle-boat trip up the Cumberland river, in January 1796, mentions seeing them at present day Cadiz, Ky., a few miles north of the Tennessee line. He passed on up the river to Clarksville but did not mention birds again. Alexander Wilson, traveling southward through Kentucky and Tennessee, in the early spring of 1810, found a large flock on the Obion river and about 100 miles northeast of Louisville. He procured several with his gun as subjects for his brush and a wing-tipped one that he carried with him during his entire trip. He next sighted paroquets fifteen miles south of the Kentucky-Tennessee line, twenty-three miles north of Nashville. Here, enroute from Bowling Green, at the head of the Mansker's creek valley, he records having seen "flocks of them." Ten miles further on he put up for three days at Isaac Walton's, a sometimes tavern, to search for birds. A couple of miles north at Madison's Lick (creek), he found more paroquets and "collected some small birds." Among these was probably the first specimen of the Tennessee Warbler (*Vermivora peregrina*) and possibly the Nashville Warbler (*Vermivora ruficapilla*) too. Wilson recorded no more in Tennessee, meeting them next at the Tennessee river and then near Natchez.

The next record is from a diary kept by D. Craft, an observant young man who accompanied a keelboat trading trip from Pittsburgh, down the Ohio and then up the Tennessee river to Florence, Alabama, then head of navigation. He recorded paroquets shortly after crossing the Kentucky-Tennessee line, on 20 March 1823. Below the line he mentions passing Caldwell's ferry at the mouth of Big Sandy river, tying up for the night at Bird's Nest Island (probably a heronry) and stopping next day at Renoldsburg where the Nashville to Memphis road supports a ferry. His diary records "Today, saw a flock of beautiful green birds, with reddish or flesh colored heads, called paroquets. They are about the size of wild pigeons and resemble them in their motions, going together in flocks". There is no further mention of paroquets in the diary but other species are referred to. After making the above entry, he mentions passing

more high cliffs on the east side of the mouth of Standing Rock creek. Had he looked at this high cliff above the river with a more experienced eye, he might have been able to record an eyrie of the Peregrine Falcon.

Further westward, in Haywood county near Brownsville, Rhodes quotes Miles as follows: "In the early part of the 1850's a flock of paroquets came to our orchard and we chased them out and killed them with sticks and apples; saw a flock at Ashpors (Lauderdale county) on the Mississippi river one hundred in number in 1874, and saw one killed alone, within five miles of Brownsville in 1876—the last I have ever heard of".

Estwick Evans, who wrote an account of his travels down the Ohio and Mississippi river valleys in 1818 (Thwaites 8-306) spent some weeks in Tennessee along the river during January. He wrote as follows: "Geese, ducks, and swans are numerous. The latter are very beautiful. Numerous paroquets occupy the trees along the river bank".

Audubon, on his boat trip down the Mississippi, noted that just after passing Memphis, on 2 December 1820, he found the "woods literally filled with paroquets." A comprehensive survey of the literature shows that the true home of this non-migratory but far-ranging species, was the river valleys of the Ohio, the Missouri river through Missouri and the Mississippi valley from St. Louis southward. This was the region of the cocklebur weed, the hackberry tree and the muscadine grape, upon each of which it depended considerably for its fall and winter food. There were also considerable numbers in the Indian Territory (Oklahoma) and of a sub-species, which made its home in Florida. Records of its occurrence in Oklahoma, 1820 to 1889, are given by Nice (p. 101). Those for Florida and some elsewhere, may be found published in *The Auk* (see index to, 1876-1900) during the 1880-1900 period. Of these E. M. Hasbrouk wrote in 1891, that none were left at that time except a few in central Florida and perhaps a few in Oklahoma.

Widmann, in his *Birds of Missouri* (pp. 113-116), gives much information on these birds in that state, including the following interesting item from the journal of explorer J. K. Townsend, dated 7 April 1733 along the Missouri river. "We saw vast numbers of the beautiful parrot of this country. They flew around us in flocks, keeping up a loud screaming, as though they would chide us for invading their territory; and the splendid green and red of their plumage glancing in the sunshine as they whirled and circled within a few feet of us, had a most magnificent appearance. They seemed entirely unsuspecting of danger, and after being fired at only huddled closer together as if to obtain protection from each other, and as their companions are falling around them, they curve down their necks and look at them fluttering on the ground as though at a loss to account for so unusual an occurrence." It seems clear that these birds had never had experience with men armed with guns. Townsend's hunters regularly brought in pigeons, paroquets and Turkeys as food for the party. While early records of paroquets in Tennessee are scant, more so is the case of adjacent Arkansas. Three books on the birds of that state, those by Wheeler, Howell and Baerg, record no acceptable facts of their former occurrence there.

Early writers gave it as their unverified opinion that paroquets nested in the hollows of trees. However, for a colonial-nesting and highly sociable bird, there would not have been enough nesting cavities close together to accommo-

date a flock. In order to clear up knowledge of its true nesting habits, William Brewster, a very capable ornithologist (*Auk*, 1891, 6:336-37) went to Florida to investigate. Among others he interviewed were two alligator hunters who told him that they had found them nesting in the swamps, on nests of twigs, placed on the low limbs of cypress trees. Shortly after, Brewster called on Judge R. L. Long of Tallahassee, who he said had a very good knowledge of the birds of the northern states as well as those of Florida. He quotes his informant thus: "He assured me that he had examined many nests of the paroquet, built precisely as above described. Formerly, when the birds were abundant in the surrounding region he said he used to find them breeding in large colonies in the cypress swamps. Several of these colonies contained at least a thousand birds each. They nested invariably in small cypress trees, the favorite position being on a fork near the end of a slender branch. Every such fork would be occupied and he has seen as many as fifty nests in one tree". No adverse comment followed Brewster's report.

For the interior population of paroquets, their breeding grounds were in the lowlands and swamps bordering the lower Ohio, lower Missouri and the Mississippi below Cairo. Open lakes in west Tennessee and the extensive, mostly shallow Reelfoot lake in Tennessee's northwest corner would seem to have been highly acceptable. Between Reelfoot and Memphis, three winding sluggish rivers had their quotes of small lakes and swamps. Reelfoot was created by the earthquake of 1811-12 causing the flat lowlands to sink to a lower level. Vast numbers of cypress trees survived in shallow parts but grew no larger and the younger trees spread their limbs out over the shallow waters of "the scatters", along the borders and at the north end. Penetration by boat into this aquatic jungle, during probable paroquet occupancy held no reward for hunters or fishermen so was probably never attempted, and no paroquet nestings were ever reported. Back in 1922, the writer in a boat with an experienced guide, found it took two hours to penetrate a half mile through this swamp, in order to reach "Cranetown", a great heronry because of the tangle of low limbs and floating cypress logs.

A "nugget" of information has just come to hand in the account of Nathaniel Bishop (Ch. 6) who in late May 1878 steered his rowboat into the mouth of Bayou du Chien, a creek that drains water from "the scatters" of Reelfoot lake, a few miles southeast. He there established camp to rest for a day or two, gathered firewood and tied his boat to the creek bank. The little 12-foot craft was a roofed-over rowbank, painted white for discernment, in which since early spring he had been rowing down the Ohio river from Pittsburgh.

His book then recounts (p. 129) that he heard the calls of an approaching flock of paroquets which after circling about over his camp, alit in the tree overhead still chattering noisily, then became silent. A page picture in his book shows about a dozen in the tree, presumably curious about the white boat below. He had no more to say about the paroquets and resumed his voyage the next morning.

The probabilities are that his visitors were a flock of males, foraging away from as many females incubating at their nesting colony in the shallow north end of Reelfoot lake, a few miles southeast. Bishop's discovery was an important

one for, here in late May, he had found a flock of paroquets close to a habitat like the ones used in Florida and at the proper time for such birds to nest. As of 1878, this may have been the last colony nesting place in the Mississippi valley region. During the few remaining years of their existence the scattered pairs may well have resorted to nesting in the tree cavities in which they roosted.

When Bishop left the Tennessee area he seemed to be racing downstream, perhaps to get ahead of a spring flood. He mentioned passing, without stopping, Memphis, Vicksburg, Natchez, and arriving at New Orleans in mid-June. With the foregoing picture of west Tennessee's vast swamp lands, it would be proper here to tell what little is known of a former resident, now extinct, of this area, the IVORY-BILLED WOODPECKER (*Campephilus principalis*). This veritable king of the woodpecker tribe was probably never abundant anywhere. Unlike the paroquet, it did not range far from its nesting areas where, in the deep forests, it sought its chief food by chiseling off the bark of large dead trees to secure the larvae (grubs) beneath. Settling of the country and active logging by timber men, reduced the extensive forests to such small areas that not enough big trees died annually to provide their specialized food.

The last ones seen in the Mississippi valley were a few pair discovered in the great 50,000 acre Singer tract, a large holding of virgin hardwood forest in Louisiana, 17 miles southwest of Tallulah in Madison Parish and 32 miles west of Vicksburg on the Mississippi. In 1935 Dr. A. A. Allen of Cornell University, organized a party to visit the site and to remain for studies. They succeeded in finding nests and in making photographs and movies in color to be used in lectures and to illustrate an article in *The Auk*. One of the party, Dr. James T. Tanner, was then selected by the National Audubon Society to explore all remaining suitable areas for additional birds. He was unable to find other individuals or habitats of recent use. He published a very informative, illustrated report in 1942, a review of which, by the writer, will be found in *The Migrant*, 1943, 14:9-10, including a page photo, by Allen, of one of the birds at its nest.

Returning now to Tennessee, we find that all earlier writers have assumed that both sides of the Mississippi river south of Cairo supported small populations, the only definite record for Tennessee, however, was of two, shot there by Audubon in 1820. This was when on the flatboat trip, mentioned earlier in this article and on about 23 November. He mentions having hunted ashore, shooting an Ivory-billed Woodpecker and later of shooting another. These almost certainly were on the inhabital Tennessee side. During that time, his journal records that he completed a painting of one of several Bald Eagles he had shot and it is reasonable to suppose that the woodpeckers were used for his fine plate depicting that species.

Across the river, in Missouri, Widmann (p. 119) records a male shot and preserved, taken 8 November 1895 near Morley, Mo. This was 30 miles north of Reelfoot lake and Widmann gives it as the last state record. In late November, 1915, twenty years later, I organized a party of two fellow birders, an expert hunter and myself, to explore the wooded areas at the north end of Reelfoot lake. The weather was good and so was our list of birds. We saw Pileated Woodpeckers but no Ivory-bills and the lake people we questioned did not recall having seen any brought in by hunters.

We will now treat more briefly of certain birds our early settlers probably saw less frequently. The PRAIRIE CHICKEN (*Tympanuchus cupido*) was found by Wilson in "The Barrens" areas of Kentucky just north of the Tennessee line, east and west of the then village of Bowling Green. He was in this area from 17 to 21 April and recorded this, now extirpated, species as being common in the vast, grassy and nearly treeless country. Had he explored the adjacent northern part of Robertson county, Tennessee, he should have found it there also for its aspect was similar to that of The Barrens. This area derived its name because of the lack of creeks and surface waters, this being due to rainfall quickly finding its way into innumerable sink holes and from there into underground streams. Wilson was told by the inhabitants that the Prairie Chickens would come to the farmhouses to feed with the poultry and that on such occasions many of them were trapped. He shortly afterwards gave Tennessee its only record of this species. He writes (2:277-79), "When I was in Tennessee, a person living within a few miles of Nashville (probably north of-G.) had caught an old hen grouse in a trap and being obliged to keep her in a large cage, she struck and abused the rest of the poultry. As to its drinking habits, he said it would not drink from a receptacle provided but eagerly picked off drops of water that ran down the bars when water was poured on top of the cage. In "The Barrens", this species had learned to rely on gleaning drops thus after rainfall. Wilson's excellent picture of one of these birds, which he called Sharp-tailed Grouse, was made on this trip as well as those of his newly discovered Kentucky (*Oporonis formosus*), Prairie (*Dendroica discolor*), Tennessee and Nashville Warblers.

Of eagles, the settlers were visited during the winter by GOLDEN EAGLES (*Aquila chrysaetos canadensis*) mostly from the northwest and Canada, although a few bred in the escarpments of the Cumberland Plateau and in similar cliffs in the high mountains along Tennessee's eastern border. The writer has been unable to find any occupied nests in these areas during the past fifty years but found several old nests. Eagles do not breed until they are 3 or 4 years old, so finding them present in spring does not mean a nest. From the early settlers, and even to a lesser extent during present times, wintering Golden Eagles took their toll of small pigs, lambs, kids, turkeys and other poultry. These birds now prefer high hills or "knobs" and depend largely upon rabbits for food.

The BALD EAGLE (*Haliaeetus leucocephalus*) has a decided preference for lakes and rivers, building huge nests in large, high trees, on or near the margins of such habitats. It was not a troublesome predator for it preferred fish, dead or alive, wild ducks and geese including those disabled by hunters, and small mammals. We may be certain that there were numerous Bald Eagle nests in West Tennessee, along the Mississippi with its numerous lakes, up the four sluggish tributaries and along both the Tennessee and Cumberland. At the present date, no active nests are known in the state but may exist. However, Reelfoot lake and the northern part of Kentucky lake have gradually become the winter home of hundreds of Bald Eagles, now enjoying the protection afforded.

The PEREGRINE FALCON (*Falco peregrinus anatum*) or Duck Hawk chose for its nesting sites habitats favored by the Golden Eagle and in addition, had

its eyries in the many high cliffs along the Tennessee, the Cumberland and several smaller rivers. Forty years ago, the writer (*Auk*, 51:371-373) had located a dozen active eyries in Tennessee but recent searchers have found these no longer occupied. The falcons are believed to have died out as a result of eating birds and squirrels affected with DDT used as a spray to kill insects which are harmful to timber trees. The eyries were located on sheltered ledges of high, verticle cliffs and no nesting material is brought in even though the 3 or 4 eggs are deposited in the chilly month of March (*Wilson Bul.* 43:3-8).

Many years ago a nest was found by the writer that was in an unusual situation. It was at the north end of Reelfoot lake, contained young and was in a live cypress tree about 50 feet above the water. Some years later I described the location to Dr. Walter R. Spofford, an enthusiastic falconer. He visited the nest and site for several years, finding the birds nesting each spring. A plentiful supply of ducks here, including wounded ones, made a convenient food supply. Wintering Peregrines, ranging widely over the state were fearless predators and would attack and kill poultry at a farmer's doorstep.

Another of the large and spectacular birds of the early days was the RAVEN (*Corvus corax*) a big bird of striking appearance which in early days was found all over Tennessee but now is limited to a very few pairs in the Great Smoky Mountains National Park and along other peaks on our eastern border. Seventy-five years ago, they could be found regularly about the cliffs around and within the sparsely settled Cumberland Plateau. This area included "The Wilderness", most of which is now within Pickett Forest State Park. In some of these cliffs I have found old nests of the Raven but the birds were no longer present. Surveyors, who had been surveying the many timber and coal lands and railroad spurs to remote coal mines, told me that prior to about 1900, these birds were seen there regularly.

Alexander Wilson, riding southward through Tennessee in early 1810, says (I:120) "In traveling from Nashville to Natchez, a distance of 470 miles, I saw few or no Crows but Ravens frequently and Vultures in great numbers". Elsewhere he writes that Crows appear to avoid living near Ravens. Scarcity of Crows in early Tennessee may be attributed to the fact corn fields were still small in size. Wilson also relates that Ravens in the north had found out about eggs of the settler's poultry and were guilty of stealing them. In an exploration trip I made back in the twenties into "The Wilderness", my map led me down Rock creek, far north of Jamestown, Tenn. I finally came across an extremely isolated log cabin on the creek, with a few cultivated acres of land around it, tilled by a backwoodsman and his small family. I engaged the hospitably mountaineer in an inquiry about possible resident eagles, falcons and Ravens. He and his wife told me that at "Yellow bluff," a high cliff about a mile downstream, Ravens had nested in recent years. That they had tried to kill them because, when one of their hens laid an egg and cackled the glad news from her hidden nest, there had to be a race from someone in the house to beat the Raven to the egg. Isaac Blevins of near Jamestown was with me and, if he is still living, can verify what our more rural friends told us.

Many more of our birds could be discussed in a general way but reference to them by the pioneers is absent, because of the busy life the people had to live in order to exist. We can be sure there were no great flocks of wintering

grackles and that Robins (*Turdus migratorius*) were far less abundant. And of course there were no Starlings (*Sturnus vulgaris*) and House Sparrows (*Passer domesticus*). It would seem that Mockingbirds (*Mimus polyglottos*) had not arrived; Wilson (1:xciv) after traveling through Kentucky and Tennessee saw not one of these birds until he reached northeast Mississippi. We shall now give a description of the quadrupeds the early settlers found in this remote wilderness.

Perhaps we should begin with the BUFFALO OR WOODLAND BISON (*Bison b. panisulvanicus*). These huge animals were found in herds throughout Tennessee and southward to the great bend made by the Tennessee river but were particularly numerous in central Tennessee about the Cumberland settlements and thence northward into Kentucky. They were also found in small numbers in the Carolinas and the Gulf states. When the first settlers disembarked at Nashville in the spring of 1780, their needs had been provided for by a hardy group of men under James Robertson, coming cross-country and arriving in mid-winter. They constructed cabins within a stockade as protection against Indians. Forty additional settlers, including a few women and children, came down the Tennessee and up the Cumberland in a flotilla of boats, arriving on 24 April 1780, and were welcomed with an ample dinner of fresh Buffalo steaks.

The site of Nashville, on the south side of the river, had been chosen because of its proximity to "The French Lick", where a copious, slightly saline spring had become a great gathering place for herds of Buffalo, Elk, Deer and associated animals. Nashville was the northern terminus of a great Buffalo trail that led southwestward and which when later was used for travel by the pioneers, became known as the Natchez Trace. At the Nashville end there were points where sloping banks on opposite sides of the river permitted an easy crossing, thus leading to another trail northward. Early history and land-grant deeds refer frequently to the presence of "Licks". These were usually spring-heads, to which the animals came to drink. In summer, the Buffalo after quenching their thirst, would then paw up the ground about the creekside to form a loblolly of mud in which to wallow; then with hide well covered, would walk away with it as a protection from the bites of swarms of Buffalo gnats and horseflies. In later years early settlers lost cattle, horses and mules from hordes of the gnats. Shallow ponds resulted about which there is no vestige of a man-made levee and quite a number of these have been found by the writer. Some still hold shallow water, others partly filled with decayed vegetation and button-willows.

At calving time, the females left the herd and wandered far off into the wilderness to drop their calves, thus keeping them safe for some months from the Wolf pack that always followed the herd, on the lookout for decrepit adult Buffalo or unprotected young. For a very complete record of the early distribution of the Buffalo and other large game the reader is referred to Remington Kellogg's 1939 report cited in the Bibliography.

To the early settlers, Buffalo meat was their chief article of food during the first 10 years and the animals were rapidly killed out by 1790. By 1800, it had become rare in the Nashville area and the few that were still left made their last stand northwest, in Montgomery and Robertson counties, during the next few years. Kellogg (p. 300) says "Bison apparently were still to be found in

Montgomery county in 1793, and quoted Goodpasture (1903:206) as having published a contract, signed 4 October 1793, with John Dier, for delivery of 35 hundredweight of Buffalo beef to John Edmondson, at \$2 a hundred". French hunters and trappers had regularly paddled up the Cumberland to middle Tennessee prior to 1780, camped by the Licks, and had slaughtered great numbers of Buffalo, for their tongues (to smoke or salt), their tallow, and their hides. One of them, de Mombrum, told pioneer William Hall, according to Henderson (pp. 128-129) that at Bledsoe's Lick, "one could walk for several hundred yards at and in the Lick, on Buffalo skulls and bones, and the whole flat around the Lick was covered with their bleached bones." The hunters evidently shot from scaffolds in trees. Bledsoe's Lick was 30 miles northeast of Nashville, and a few miles north of the Cumberland.

There should be a monument erected to the Buffalo in Nashville, the State Capitol, for aside from the food it provided for its isolated founders, its well fleeced hide was good to sleep both on and under, its thick, tanned hide provided the leather of which the early settlers moccasins were made, and since Buffalos kept their well-worn trails clear, the settlers found them invaluable for their travels.

It seems strange to realize nowadays that Tennessee in early times had a good population of that stately antlered animal, the EASTERN ELK (*Carvus c. canadensis*) which is said to have associated itself with the much more numerous deer. Kellogg has rounded up the few bits of information on this animal (pp. 295-97) which includes quotes from Ramsey, writing in 1853, that in 1779, about Nashville, the woods and cane brakes were frequented by Buffalos, Elk, Deer, Wolves, Panthers and Foxes. Putman, writing in 1859, likewise stated that this locality had "innumerable sulphur or salt spring to drink". The same source stated that in 1783, in Cumberland county on the Plateau, surveyors on a new road passing through meadow lands reported "numerous herds of deer, elk and buffalo". David Crockett (1834) in an autobiographical sketch, reportedly refers to elk in the bottoms of Obion and Dyer counties in west Tennessee between 1820 and 1830. The elk sheds its large set of antlers annually and early travellers referred to finding these in many places. Like the buffalo, it was said to wallow in the licks to clothe itself in mud as a deterrent to gnats and flies. Practically none of these fine animals were still in existence after about 1850. One of Tennessee's most scenic rivers was chosen to bear its name, the Elk.

The most numerous, and in many ways the most useful of Tennessee's big game, was the VIRGINIA DEER (*Odocoileus v. virginianus*). The early settlers found them to be common in all parts of the state and usually associated with herds of elk and buffalo. Panthers and wolves preyed upon them, and one protection from the wolves was for the deer to flee to within the fearless buffalo herd.

Deer skins to the pioneers was the equivalent of money and the settlers hunted them whenever time permitted. Their flesh was prized for food and the hunters learned how to tan the skins for clothing. A long, narrow strip of buckskin, for sewing and a stout thorn from a honey-locust tree used as a hole punch, enabled a "long hunter" or pioneer to fashion a jacket, pants and leggins with no other tools than his trusty knife. As households were set up,

better tanning was perfected and the women turned out a better product for the men and their children. Strips or coils of tough, strong "buckskin" were for many generations considered an essential item in every farmer's tool house. This item however in later years was cut from calfskins.

The shooting of deer, elk and buffalo by hunters at "licks" is well described by Killebrew (p. 113). According to accounts given to him prior to 1873 by early settlers, the hunters erected scaffolds in trees at the edge of the lick, concealing themselves on them with brush and from which they could overlook the animals below. Then "at the time of the day the game were to congregate, the crafty hunter, elevated on his lofty eyrie above the visual range, would with his unerring rifle . . ." select his animals and kill one after another of those he chose.

The BLACK BEAR (*Ursus a. americanus*) was also widely distributed throughout Tennessee and was found useful to the settlers but at times was an annoying predator. None have occurred in the State in many years except a few that are in rugged Great Smoky Mountains timbered areas, now a National Park, where they are protected. Elsewhere in Tennessee they made their last stand in the wilds of the Cumberland Plateau. Kellogg (p. 257-260) gives many occurrences including the earliest years. He also quotes historian Ramsey's (p. 450) much too brief account of an heroic service rendered by some of the brave settlers, more details of which are here given.

During the summer of 1781, a heavy rain washed out the corn crop they had planted in the bottoms, leaving far too little corn for meal and hominy. A very cold January found them facing starvation. Twenty hunters then volunteered to paddle up the Cumberland to recently discovered Flynn's Lick and to bring back a greatly needed supply of meat. While they were away, on 15 January, Indians noted the absence of ten of the dozen canoes, attacked Freeland's station one of the two at Nashville, but were repulsed. Meanwhile, the hunters had passed the mouth of Caney Fork and thence on to Flynn's Creek, in the mouth of which they made camp, close to the Lick. During the several weeks there and enroute, they killed and dressed 105 Bears, 75 Buffalos and more than 80 deer.

To bring back so much game, it was necessary for them to build a raft, load it and steer it 151 miles downstream with poles, sweeps, and the aid of their canoes. After unloading, the raft was disassembled and we may assume, was eagerly chopped up for firewood. The bear fat was rendered into "bear grease". In later years the pioneers stored this commodity in large gourds since it was highly prized as a necessary ingredient for good cornbread. Further along, Putman (p. 296) is quoted: "Bear and wolves were found in great numbers for half a dozen years after the first settlement, in the Harpeth hills," 10 or 12 miles southwest of Nashville, and on page 122, "During the winter, Capt. John Rains killed 32 bears within 7 miles of the Bluff (Nashville), mostly in Harpeth Knobs south of Nashville.

As predators, Bears made off with the settlers pigs, lambs and poultry and would turn over "bee-gums" to get honey. Being omnivorous, they ate a great variety of food including blueberries, blackberries, wild fruit, insects, acorns, and nuts in season. During fall, they became very fat and sought dens in which to sleep in very cold weather.

The GRAY WOLFE (*Canis lupus*) was the worst of all predators for it hunted in packs and ranged over wide areas in search of victims. It was found throughout the state and was difficult to get rid of. A pack was said to always follow the buffalo herds, hoping that a decrepit animal would lag behind, or to surround a young one that had strayed away. When the settlers brought their stock with them into the Tennessee and Cumberland river settlements, their pigs, sheep and poultry had to be penned up at night lest the wolves, panthers and bobcats wipe them out. Neither their flesh nor hide had value, so regular trappers did not seek them at first but later, Williams (1936:961 180) records that in 1819 wolves so often "attacked young pigs, young calves, fawns, etc., that bounties were paid to hunters and trappers for wolf scalps."

The PANTHER (*Felis concolor*) and the BOBCAT (*Lynx r. rufus*) were kindred predators, the former much less numerous than the latter. Panthers were difficult to trap but were hunted with dogs which would "tree" the animal where it could be shot. The last of them were probably extirpated prior to the year 1900. Though unconfirmed reports came in later. Bobcats are still occasionally reported.

The BEAVER (*Castor canadensis carolinensis*) and the OTTER (*Lutro canadensis interior*) were fellow denizens of the streams and were widely distributed. The Beaver felled saplings with which to construct pond-forming dams to provide its special habitat. The Otter digs a hole in a stream bank with entrance well hidden, then makes a nest at its terminus for rearing its young. They are very destructive to fish and range widely from their home base. As to the Beaver, a few small colonies exist in west and middle Tennessee. The Otter has now become very rare. These two species along with the MINK (*Mustela vison*) have always been the most sought after catch by trappers, for their skins brought high prices. The mink is still widespread over the state but is no longer common. In those early years, when the value of North Carolina money was in doubt, high quality furs were more acceptable and taxes could be paid with them. Public officials then accepted them for salaries and in turn converted them into money or bartered them for goods and services. Of the lesser animals there was, and are, a great variety, such as the Red and Grey Foxes, Raccoon, Opossum, Skunk, Woodchuck, Muskrat, Rabbit, Weasel, Grey and Red Fox Squirrels, about 50 species in all.

The writer feels that the last paragraph of this article should be devoted to a few words about the brave settlers themselves, and who of necessity made good use of the wildlife, without which they could not have settled the state, when and as they did. As mentioned in the first paragraph they were North Carolinians, mostly young Revolutionary War soldiers, who had grants of land coming to them for their war services, anywhere in the state which claimed its lines extended westward to the Mississippi river. Back in Carolina, they had become used to fighting Indians so they came as fearless invaders of what had been the Indians hunting grounds in Tennessee and Kentucky. The fighting that followed through those early years made them cling together as brothers and bred in them both unity and confidence. Isolated as they were, by the mountain chain on the east, by French territory on the west, and by Indian territories on the south and north, they received but few goods from outside. With great ingenuity they learned to improvise and to manufacture the neces-

sities of life. This developed a distinctive, confident and self-reliant type of people who in consequence evolved many admirable qualities and of which their present-day descendents are justly proud.

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ALBERT F. GANIER, ORNITHOLOGIST

JAMES T. TANNER

Albert F. Ganier's first publication in an ornithological journal appeared in 1899 in *The Hummer*; it was titled "My Screech Owl Finds of 1899". In the same year and for the same journal he wrote two other articles, "Odd Nestings" and "The Wood Pewee". These three papers were the first fruits of what has become a life-time study of the birds of the state.

These papers also began his association with the Wilson Ornithological Society, then composed largely of ornithologists interested in the birds of the Mississippi Valley Region. He became secretary of that society in 1918, serving for the next five years. During his tenure he wrote many news notes for the "Bulletin" on ornithology and on the activities of ornithologists, thus increasing the interest of the members in their society and in their science. In 1924 he was elected president of that society and served for the two-year term. As president he made special efforts to increase the funds for publication of the *Wilson Bulletin*. The society met in Nashville in November, 1924, under his leadership.

He published several other notes and articles in the *Wilson Bulletin*, but after the birth of *The Migrant* in 1930 most of his records and research were recorded in this journal. A count of Albert Ganier's scientific publications, excluding news notes, book reviews and so forth, totals 206; by far the majority, 153, were published in *The Migrant*, while 34 were in the *Wilson Bulletin* and the remainder in other journals.

Two of his major works appeared in 1933. One, entitled "A Distributional List of the Birds of Tennessee" and published by the Tennessee Department of Game and Fish, was the first attempt to compile an annotated list of the birds of the state. The second published in that same year in *The Journal of the Tennessee Academy of Science* was entitled "Water Birds of Reelfoot Lake, Tennessee", and it was on the same general subject as that of his first paper written 17 years previously. Indeed one of his permanent interests has been the herons and other birds of Reelfoot Lake and neighboring areas; to emphasize this point I list the years in which he published articles on this subject: 1916, 1932, 1933, 1937, 1943, 1951, 1960, 1964.

Most of Albert Ganier's observations naturally centered around Nashville, his home city. Over forty articles and notes described the bird life of that region, ranging over the subjects of abundance, nesting, roosting habits, migration, and rare visitors. He extended his studies, however, to many parts of the state by organizing forays into little known sections to find what birds were present in these areas. Localities that he and his friends explored at different times included the Great Smoky Mountains, Roan Mountain, Unicoi Mountains, Shady Valley, Pickett Forest, and Fall Creek Falls.

His interest in birds extends to all kinds, and the notes he has written on particular species range over the taxonomic list from Eared Grebe to White-throated Sparrow. However he showed more interest in some groups, especially

the herons as has already been mentioned, and also in eagles, the Peregrine Falcon, warblers nesting in Tennessee, the Cardinal, and the Starling. In 1925 he reported the breeding of the Starling, then a new bird for this part of the country, in Tennessee, North Carolina, and Virginia. His interest in nesting birds and his skill at finding nests developed from his interest in the collecting of bird eggs, a characteristic of many persons who became interested in ornithology in the early part of the century. Another subject in which he became interested after 1950 and on which he has written several papers is that of the nocturnal migration of birds.

His only venture into the area of ornithological taxonomy was the description of a new race of the Yellow-bellied Sapsucker which nests in the southern Appalachian mountains. This description was published in *The Migrant* in 1954, and the new name was later recognized by the Committee on Nomenclature of the American Ornithologists Union.

Because of the great variety of his contributions to the science of ornithology, it is difficult to say which will be the most valuable. The two which I believe are outstanding are, first, his encouragement of the study of birds by his dedicated work for and support of the Wilson Ornithological Society and the Tennessee Ornithological Society, and second, the many observations he has recorded on the presence and habits of birds in Tennessee and surrounding areas. Some of these have already furnished information for the state bird books of Alabama, Kentucky, and North Carolina. Whenever a scientific book on the birds of Tennessee will be written, I am certain that a large section of the list of literature cited will be under the name "Ganier, Albert F."

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Correction: *The Migrant* 44:30, 1973. With Table II the copy now reads:
 Henslow's Sparrow *Passerherbulus henslowii* *Calcarius henslowii*

To be correct it should read as follows:
 Henslow's Sparrow *Passerherbulus henslowii* *Ammodramus henslowii*.

ALBERT F. GANIER — EDITOR AND AUTHOR

BEN B. COFFEY, JR.

Our friend, Albert F. Ganier, has led such a full and fruitful life that any sub-title would seem too restrictive. An excellent article in *The Tennessee Conservationist* for Oct./Nov. 1972 is entitled "Salute to a Pioneer: Albert F. Ganier". "It was taken, in part, from Charles Farrell's nomination for Mr. Ganier's Tennessee Conservation League Governor's Award." I urge you to read again this article which is very informative. The first paragraph therein is such a worthy summation and tribute, that I have reproduced it herein. It expresses my almost identical thoughts so admirably that I must plead my inability to otherwise express myself.

"Mr. Ganier has sought through the whole of his long life to learn and to appreciate the animals and plants of the State, its land and water surface, and its cultural monuments of earlier generations of Tennesseans; he has by example instilled in his contemporaries his own zeal for learning and something of his capacity for appreciation; and he has attempted in all ways by the written and spoken word and by direct deed to insure these treasures for generations of Tennesseans to come. Best known for his work in ornithology and deserving of an award for this alone, his contributions in other aspects of conservation are numerous and important."

I would like to supplement the above account, and, also, to treat of Mr. Ganier as editor and writer. He was as concerned with people of similar interests as with those interests, and ever ready to help. He was able to travel to many areas of the state, not only to study the birds present, but to assist other members in their study and to help them come together and unite their efforts. He often visited our Memphis Chapter, as he did other Chapters and birders throughout the state, for our anniversaries and other meetings and special field trips. Many field trip sites he had already worked alone or with a few of our other pioneer members. These visits were frequent enough that I know they would have been a burden to a lesser spirit. In addition, he encouraged and assisted in the organization of the Kentucky and the Georgia Ornithological Societies. He gave leadership and editorial service to the Tennessee Academy of Science and to a national society, the Wilson Ornithological Club.

He early recognized the importance of a Society periodical, in placing on record facts developed by our field work, in drawing our state-wide membership together, and spurring the growth of our Society. He was on the editorial staff from the start (1930) and served as Editor 1935-1937, and mid-1942 through 1946. He gave guidance and encouragement to those that subsequently took over those duties. More importantly, from a practical standpoint, he gave freely of his time and efforts in supplying "copy". How much copy I didn't realize until I compiled a bibliography of his writings, which is given here. Such a tabulation is usually glanced at casually, but I recommend your perusal of each title, so that you will realize the extent and breadth of his interests and the importance of his contributions to the success of *The Migrant*.

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- 1921a. Nesting of Bachman's Sparrow. *Wilson Bulletin*, 33: 1-4.
- 1921b. Photographing a Killdeer. *Wilson Bulletin*, 33: (No. 3)
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- 1921d. Cowbird Lays in Prothonotary's Nest. *Wilson Bulletin*, 33: 146.
- 1921e. Woodcock Increasing. *Wilson Bulletin*, 33:148-149.
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- 1926b. Life History of the Bobwhite or Quail. *Jour. Tenn. Acad. Sci.*, 1: 10.
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- 1928c. The European Starling Nesting at Nashville, Tennessee. *Wilson Bulletin*, 40: 198.
- 1928d. Snowy Owl in Tennessee. *Wilson Bulletin*, 40: 251.
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1930. Breeding of Least Tern on the Mississippi River, *Wilson Bulletin*, 42: 103-107.
- 1931a. Nesting of the Duck Hawk in Tennessee. *Wilson Bulletin*, 43: 3-8.
- 1931b. Facts About Eagles in Tennessee. *Jour. Tenn. Acad. Sci.*, 6: 49-57.
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- 1933d. A Ten-year-old Cardinal. *Wilson Bulletin*, 45: 152-154.
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- 1934b. The Status of the Duck Hawk in the Southeast. *Auk*, 51: 371-373.
- 1934c. Further Notes on a Very Old Cardinal. *Wilson Bulletin*, 46: 236-237.
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In addition, Mr. Ganier has been a contributor to the U. S. National Museum Life History series (A. C. Bent, et), 1936 Olin S. Pettingill, Jr.'s "The American Woodcock", and the like.

Main Articles in The Migrant

- 1930a. How to Begin the Study of Birds. I(No.1):4-5.
- 1930b. Autumn Migration. I(No.2):5-6 (II-12).
- 1930c. Fifteenth Anniversary Field Day. I:14-15.
- 1931a. About Nesting Boxes. II: 2.
- 1931b. A Winter' Day. II: 25-27.

1932. Facts About Eagles in Tennessee. III: 17-25. (reprinted from Jour. Tenn. Acad. Sci., 1931: 49-57)
1933. Two March Days at Mullins Cove. IV: 3-5.
1934. Wilson's and Audubon's Works in Tennessee Libraries. V: 39-40.
- 1935a. Spring Migration at Athens, Tenn. VI: 2-5. (compiled from the records of W. R. Gettys).
- 1935b. Goose Pond and its Marsh Birds. VI: 22-24.
- 1936a. Arrival of Spring Migrants at Nashville. VII: 6-7.
- 1936b. New Birds for the Tennessee List. VII: 17-18.
- 1936c. Summer Birds of Roan Mountain. VII: 83-86.
- 1937a. Tennessee's Wildwood Parks. VIII: 10-14.
- 1937b. Summer Birds of Pickett Forest. VIII: 24-27 & photo (34).
- 1937c. Mississippi Kites at Home. VIII (No. 3): frontispiece drawing.
1938. The Relative Abundance of Winter Birds at Nashville. IX: 89-93.
1939. Canoeing for Birds Along Red River. X: 41-43.
- 1940a. Notes on Tennessee Birds of Prey. XI: 1-4.
- 1940b. Drawing of Northern Horned Lark and 2 Lapland Longspurs. XI: 18.
- 1940c. Review: Notes on the Birds of Tennessee by Alexander Wetmore. XI:29-31.
1941. Thru the Seasons with the Cardinal. XII: 1-4.
1943. The Ivory-billed Woodpecker, a Review of the Report by James T. Tanner. XIV: 9-10.
1943. Notes on the Winter Food of Birds. XIV: 45-47.
- 1944a. Vernacular Names of Tennessee Birds. XV: 27-28.
- 1944b. More About the Chimney Swifts Found in Peru. XV: 39-41.
- 1944c. Maps Showing Chimney Swift Migration. 15: 44 & (3 maps) 47-50.
- 1946a. The Role of the Unusual. 17: 31-32.
- 1946b. Why We Use Capitals for Spelling Bird Names. 17: 52.
1947. Nesting Habits of the Great Horned Owl. 18: 17-24.
1948. Conditions of Birds Following a Protracted Snow. 19: 7-9.
- 1949a. Our Ornithological Library. 20: 48-50.
- 1949b. Nesting Notes on the Broad-winged Hawk. 20: 57-59.
- 1951a. The Breeding Herons of Tennessee. 22: 1-8.
- 1951b. Some Notes on Bald Eagles. 22: 37-39.
- 1952a. Bird Study Through the Winter Months. 23: 43-44.
- 1952b. Nocturnal Bird Migration at Nashville, Tennessee. 23: 60-62.
1953. Observations on the Sycamore Warbler. 24: 23-25 & photo frontispiece.
- 1954a. Spring Water Birds at Nashville - 1954. 25: 21-23.
- 1954b. A New Race of the Yellow-bellied Sapsucker. 25: 37-41 incl. plate.
1956. Nesting of the Black-throated Blue and Chestnut-sided Warblers. 27: 45-46.
1957. Observations on Ruby-throated Hummingbirds. 28: 36-39.
- 1959a. Robin's Use of Hackberries. 30: 12-13.
- 1959b. The Degree and Effect of Sociability Among Birds. 30: 17-19.
1960. A New Heronry in Northwest Tennessee. 31: 48-49.
- 1962a. Some Nesting Records from the Smokies. 33: 1-6 and photo frontispiece.
- 1962b. The Red-cockaded Woodpecker in Tennessee. 33: 40-45 with photo by S. A. Grimes.
- 1962c. Bird Casualties at a Nashville T-V Tower. 33: 58-60.
- 1964a. Some Field Notes from Reelfoot Lake, Tennessee. 35: 30-32.
- 1964b. Observations on a Chuck-Will's-Widow. 35: 97-99 with 2 photos.
- 1964c. (Obituaries) George Radford Mayfield. 35: 118-119 with photo.
- 1965a. Ornithological Exploration and Collecting in Tennessee. 36: 26-29.
- 1965b. Book Review, The Birds of Kentucky. 36: 101-102.
1966. Some Facts Learned from Nocturnal Migration. 37: 27-34.
1972. Dixon Lanier Merritt (1879-1972). 43: 8-9.

As Co-author

1934. Albert F. Ganier and Bruce P. Tyler. Summer Birds of Shady Valley. V: 21-23.
1935. A. F. Ganier, G. R. Mayfield, Dixon Merritt and A. C. Webb. History of the Tennessee Ornithological Society. VI: 41-44.
1936. A. F. Ganier and S. A. Weakley. Nesting of the Cliff Swallow in Tennessee. VII: 29-30 and (photos) 40-41.
1938. Albert F. Ganier and Alfred Clebsch. Some June Birds of the Great Smokies. IX: 43-45 & (photos) 55-58.
1940. Albert F. Ganier and Alfred Clebsch. Summer Birds of Fall Creek State Park. XI: 53-59.
1942. Albert F. Ganier and Alfred Clebsch. A Week in West Tennessee. XIII: 32-35.

As Contributor to Symposiums

1938. (Summer Resident Lists). Nashville Area. IX: 47.
1942. (The Wrens of Tennessee). XIII: 1-13.
1943. How Birds Spent Their Winter Nights. XIV: 1-5.
1944. How Birds Spent Their Winter Nights-II. XV: 9-14.
1948. (Observing the Nocturnal Migration of Birds)... observations at Nashville. 19: 17-18.
1954. (Bird Mortality During Night Migration, October, 1954) Shelbyville. 25: 61-62.

Minor Articles in The Migrant

1931. Nesting of Prairie Horned Lark near Nashville. II: 31.
- 1932a. Pine Warblers not Wintering. III: 10.
- 1932b. Duck Hawks at a Reelfoot Heronry. III: 28-29.
- 1932c. Lark Sparrow at Nashville. III: 37.

- 1932d. Review: "The Water Birds of Radnor Lake". III: 50.
 1933a. An Albino Junco. IV: 10. (G. R. Mayfield and A. F. G.).
 1933b. Review: "Birds of the Atlanta Area". IV: 44.
 1933c. A Swallow-tailed Kite. IV: 51.
 1934a. Swainson's Warbler in Tennessee. V: 11-12.
 1934b. New Birds for the Tennessee List. V: 15.
 1934c. A Hudsonian Curlew at Memphis. V: 40-41 (A. F. G. and Ben B. Coffey).
 1935a. American Rough-legged Hawk near Nashville. VI: 13.
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 1936. Recent Eagle occurrences. VII: 46.
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 1937b. Marsh Hawks and Crows play game of tag. VIII: 78.
 1937c. A record of the Goshawk. VIII: 85.
 1937d. A Grinnell's Water-thrush near Clarksville. VIII: 85.
 1939. Nesting of the Sycamore and Pine Warblers at Knoxville. X: 62-63.
 1940. Nesting of Swainson's Warbler in Middle Tennessee. XI: 111-112; 107 (photo).
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 1941d. Western Swamp Sparrow and Western Olive-backed Thrush added to the Tennessee List. XII: 77.
 1941e. Sanctuary Suggestions. XII: 78.
 1942. Notes on a Robin's roost. XIII: 25-26.
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 1945e. The dual use of English and scientific names. XVI: 36.
 1945f. Some early history. (origin, activities and aims of the T. O. S.). XVI: 49.
 1945g. Further notes on the Martha bird roost. XVI: 63-64.
 1946a. A Long-eared Owl near Nashville. 17: 12-13.
 1946b. Sparrow Hawk nests in a cliff. 17: 26.
 1946c. Crested Flycatcher destroys caterpillar. 17: 30.
 1946d. A June list from the Smoky Mountain summits. 17: 67. (A. F. G. & G. R. Mayfield)
 1946e. Additional records of the Saw-whet Owl. 17: 67-68.
 1947. Prairie Horned Lark and Lark Sparrow near McMinnville. 18: 9. (A. F. G. and Alfred Clebsch).
 1948. Western Henslow's Sparrow in East Tenn. 19: 28-29.
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 1951b. Cerulean Warblers and Redstarts remove their nests. 22: 43-44.
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 1958b. In Memoriam: Bruce P. Tyler. 29: 12.
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 1960a. In Memoriam: James A. Robins. 31: 19.
 1960b. The Three-toed Woodpecker record. 31: 50.
 1960c. Summer Tanager captures yellow-jackets. 31: 51.
 1960d. Live insects in a Blue Jay's crop. 31: 51.
 1960e. Evening Grosbeak visitants. 31: 53.
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 1962a. Evening Grosbeaks at Waynesboro. 33: 19.
 1962b. Snakes as climbers. 33: 52-53.
 1962c. Further notes from Crossville. 33: 55.
 1963a. A Kentucky bird-fall in 1962. 34: 34-35.
 1963b. The first Nashville Christmas census. 34: 90.

- 1964a. A Tennessee nesting of the Tree Swallow. 35: 51.
1964b. An egg within an egg. 35: 71.
1966. Cowbird eggs in Catbird's nest. 37: 76-78.
1969a. Post-mortem of a Groove-billed Ani. 40: 9.
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The above omits 21 captioned entries of seasonal summaries on the Nashville area. There are many other "notes and news", editorial comments, and the like, uncaptioned.

BOOK REVIEW

AUTUMN OF THE EAGLE. George Laycock. Charles Scribner's Sons. New York. 239 pages, photographs and maps. 1973. \$6.95.

An excellent book on the Bald Eagle, our National Bird. In a very readable form, the author recounts in detail the history of this bird which was once the master of the sky but today faces extinction. The important events that have led to the decline of the eagle are presented chronologically and are correlated to the rise of man's technological world. The titles of the fifteen chapters give a good indication of the complete nature of this book on the Bald Eagle and are worthy of being named—the National Bird, the vanishing wilderness, the eagle family, the eyrie, the eagles of Vermilion, a matter of diet, the champion bander, danger in the sky, the chemical age, a search for eagles, intolerance and poison, shotguns and helicopters, land of many eagles, first aid and deep concern, and what of the future. For anyone interested in the Bald Eagle, its past, present and future this book is a must.

GARY O. WALLACE, Route 7, Elizabethton 37643.

"Assistance from field personnel of wildlife agencies and the general public is requested in reporting color-marked immature bald eagles banded and marked by Dan Frenzel, Joel Kussman, and Steve Fagerlie this past summer on the Bena District of Minnesota's Chippewa National Forest. Birds have been marked on one wing with orange, blue or white colors, or combinations of these colors. Please report any sightings by calling Frenzel's office (612) 373-1715 or at his home (612) 644-0348, or contacting the local or nearest wildlife or conservation officer. Thank you for assisting in this request."

ROUND TABLE NOTES

MONK PARAKEET IN SHELBY COUNTY—On 3 February 1973 George Hervey, Martha Waldron, my husband, Henry, and I observed a bird fitting the description of the Monk Parakeet (*Myiopsitta monachus*) as described in de Schauensee's *Birds of South America*. The bird had been present in the yard of Mr. and Mrs. Ed Rowe, just north of Memphis, since late October 1972. It is about 11" long, with forecrown and breast grey, belly yellowish, rest of parts green, remiges blue, tail long and pointed. It was observed from 9:30 to 10:30 A.M. as it flew from honeysuckle bushes, bearing long strands of the old vine, to the ivy clambering up a black walnut tree where it was building a bulky nest.

The Monk Parakeet, native to Bolivia, Paraguay and Argentina, seriously damages crops in Argentina, as reported in the June 1972 issue of *American Birds*, Vol. 26, Number 3, page 567. Several pairs of this exotic, imported by pet shops to the United States have now escaped to the wild and raised young successfully in New York. However, we find after a check of the local pet shops that none of them carries, or has carried, this species.

Latest reports indicate Monk Parakeets in the wild at Binghamton and Watertown in New York and at locations in Michigan, North Dakota and Virginia (June-July 1972 issue of *The Conservationist*, State of New York, Department of Environmental Conservation).

We have been unable to find any reports of the Monk Parakeet in the wild in Tennessee.

HELEN DINKELSPIEL, 6519 Massey Lane, Memphis 38138.

HOUSE SPARROWS KILLED BY STARLING AND GRACKLE—On 14 May 1972 about 07:30 CDT, a mixed flock of Starling, *Sturnus vulgaris*, and House Sparrows, *Passer domesticus*, was feeding on millet and bread crumbs at our backyard feeder.

While we were watching from a window, a Starling pecked one of the House Sparrows several times about the head, killing it. The Starling paid no more attention to the sparrow after killing it. When examined, the skull of the sparrow was found to be perforated in two places.

We witnessed a similar occurrence on 30 August 1972 at about 08:45 CDT. This time two Common Grackles, *Quiscalus quiscula*, were feeding with House Sparrows. The largest of the two grackles pecked at the head of a sparrow, killing it. After what appeared to be an unsuccessful attempt to swallow it, the grackle dropped the sparrow and flew away.

QUENTIN B. AND FRANCES L. DOWDY, 3630 Sharpe Avenue, Memphis 38111.

THE SEASON

DR. FRED J. ALSOP, III, *Editor*

NESTING SEASON: 16 MAY - 31 JULY

As you read the following you will become increasingly aware of the great amount of information this report contains on the nesting dates, successes, failures, etc., of a wide variety of species and number of individuals of Tennessee birds. Through the efforts of birders like yourself much is being compiled on the avifauna of this state, but this knowledge depends in great part on YOU, the birder, getting YOUR records to a regional compiler.

The invasion of Northern finches reported in the last "Season" is reflected by reports from all regions except the Western Coastal Plain of the continued presence of Pine Siskins, Red Crossbills, and Evening Grosbeaks well into May and in some instances to the middle of June. There were observations of wanderers from southern areas as well with a Louisiana Heron and two immature White Ibises seen by many birders in the Eastern Ridge and Valley Region.

Upland Sandpipers (Plovers) were again found at the Metro Airport, Nashville, during the nesting season. This is the second consecutive year this species has been observed here (see *The Migrant*, 43 (3): 74 and 76), and again raises the question of the possible nesting of this species in Tennessee. Margaret Mann and company are enthusiastically encouraged to continue their observations of this bird's activities in Middle Tennessee.

A new nesting species for Tennessee was added during the period with the discovery in Hawkins County of the nest of a Savannah Sparrow. The three eggs hatched and the young were banded before they left the nest in July. This is the only nest of this species in the state known to the editorial staff (a full report will be published shortly) and it is of some interest to note that the first nest of a Savannah Sparrow in Virginia was also discovered this summer.

Morris Williams reports that no Bachman's Sparrow nests could be located in Lawrence County this season. The bird has nested in several locations there through last year, but seems to be following the same trend here as seen in other areas across Tennessee. Does anyone have recent information on this species? Once a fairly common bird in proper habitat it would now seem to be one of the rarest nesting birds in Tennessee.

WESTERN COASTAL PLAIN REGION—*Heron-Oriole*: Little Blue Heron: 17 June (28) and 6 July (15) R (BBC, LC). Cattle Egret: 17 June (17) and 6 July (15) R (BBC, LC). *BLUE-WINGED TEAL*: 17 June (6)

R (BBC, LC), 27 June (1, female) CA (RMG). Mississippi Kite: 23 June (7) and 24 June (17) M (BBC, LC). WILLET: 27 June (2) CA (RMG). Black-billed Cuckoo: 7 June (1) Madison County (Jerald Ledbetter). Bewick's Wren: 9 June (6) 4 locations in Cockrun, Miss. (BBC, George Hervey). BLACK-AND-WHITE WARBLER: 22 June (1) and 24 June (2) M (BBC). CHEST-NUT-SIDED WARBLER: 5 June (1, singing) and 9 June (1 female, dead) Savannah (DP, MP). BALTIMORE ORIOLE: throughout season (2, nesting) Pickwick Lane (Dr. and Mrs. Richard Warriner, DP, MP).

Locations: CA—Crittendon County, Arkansas, M—Memphis and Shelby County, R—Reelfoot Lake and Lake County.

Observers: BBC—Ben B. Coffey, Jr., LC—Lula Coffey, RMG—Robert McGowan, DP—David Patterson, MP—Mike Patterson.

DAVID E. PATTERSON, Harbert Hills Academy, Savannah 38372.

CENTRAL PLATEAU AND BASIN REGION—Temperatures for the period averaged lower than normal. Rainfall was considerably above average. Nashville experienced the second wettest July since records have been kept (1870). High water caused some good shore bird areas to be unproductive. Ken Dubke reported 10 Rufous-sided Towhees on his Glen Breeding Bird Count. Since 1966 numbers have ranged from 0-4. Most of us know the towhee as a common permanent resident, but in some areas of Tennessee at certain times of the year it is rare or absent.

Grebe-Sandpiper: Pied-billed Grebe: 2 July (1) OHL (MLM). Little Blue Heron: 25 July (1) G (PC, DC). Yellow-crowned Night Heron: 1 pair nested BV (MLB). Blue-winged Teal: Last, 31 May (2) BV (MLB); 5 July (5) BV (MLM, AT). Red-shouldered Hawk: 21 May (Nest, 1 young and 1 unhatched egg) Crossville (Benton Basham, DJ, Adele West). Ruffed Grouse: 25 May (adult with 8 young) CWMA (CPN, MDW). American Coot: Last, 17 May (1) BV (MLB). Semipalmated Plover: 19 May (10) BV (JR, HR); 20 May (2) G (PC, DC). UPLAND SANDPIPER: 20 July (2) through end of period, Metro Airport, NA (MLM). Spotted Sandpiper: Last, 31 May (1) BV (MLB); first, 5 July (1) BV (MLM, AT). Solitary Sandpiper: Last, 17 May (3) BV (MLB); first 29 June (1) BV (JR). Greater Yellowlegs: Last, 17 May (1) BV (MLB). Lesser Yellowlegs: Last, 17 May (7) BV (MLB); first, 7 July (1) G (PC). Pectoral Sandpiper: 7 July (1) G (PC). WHITE-RUMPED SANDPIPER: 28 and 29 May (6) BV (MLB). Least Sandpiper: 16 July (7) BV (MLB). Dowitcher sp. 5 July (1) BV (MLM, AT). STILT SANDPIPER: 5 July (2) Gallatin Steam Plant (PC). Semipalmated Sandpiper: Last, 29 May (23) BV (MLB). WESTERN SANDPIPER: 17 May (4) BV (MLB).

Tern-Sparrow: Common Tern: 15 July (2) OHL (PC, DC). Least Tern: 30 June (1) BV (Charles Farrell, MLB). Black-billed Cuckoo: 12 June (2) JBBC (KD, LD); 11 July (1) NA (Gary Christman). RED-COCKADED WOODPECKER: 25 May (nest, 3 young—10 days old, 2 adults) CWMA (CPN, MDW). WILLOW FLYCATCHER: 26 May (1) BV (HR). Bewick's Wren: 25 during period FP (MDW). Cedar Waxwing: 22 May (15) NA (MLB). Blue-winged Warbler: 6 singing males during June FP (MDW). Tennessee Warbler: Last, 18 May (1) NA (MLB). Parula Warbler: 5 singing

males during June FP (MDW). Magnolia Warbler: Last, 17 May (1) NA (MLB). Blackpoll Warbler: Last, 25 May (1) NA (MLB). *MOURNING WARBLER*: 23 May (1) Stewart Co. (Gary O. Wallace). Bobolink: 29 May (1) BV (MLB) Latest NA record by 7 days. Rose-breasted Grosbeak: 22 May (1) NA (MLB). *PINE SISKIN*: Last, 16 May (2) NA (Bessie Walker). *RED CROSSBILL*: 11 June (10+) Cumberland Co. (Fred Alsop and Ron Austing); 18 June (5) Coalmont, Grundy County (DJ). Savannah Sparrow: Last, 17 May (1) BV (MLB). *LARK SPARROW*: 4 June (1) G-BBC (KD, LD); 12 individuals during period FP (MDW). *BACHMAN'S SPARROW*: absent in Lawrence Co. where it has occurred during past few years. Lincoln's Sparrow: Last, 17 May (1) BV (MLB). Song Sparrow: 4 June (1) G-BBC (KD, LD).

NESTING RECORDS FROM FIVE POINTS, LAWRENCE CO. All observation made 10 June - 31 July by Morris Williams. E = eggs, Y = young.

Green Heron: 29 July (2 empty nests). Broad-winged Hawk: 10 June (nest, 2Y). Bobwhite: 5 nests; 10E, 12E, 14E, undetermined no. of eggs in 2 nests, all nests were destroyed by mower. Mourning Dove: 4 nests—2E, 2E, 2E, 2Y. Yellow-billed Cuckoo: 4 nests—2E, 2E, 3E, 2Y. Chimney Swift: 2 nests—5E, 5E. Ruby-throated Hummingbird: 1 July (nest, 2Y); 22 July (nest, 2Y). Red-bellied Woodpecker: 17 July (nest, 2Y). Eastern Kingbird: 2 nests—3E, 3E. Eastern Phoebe: 10 June (nest, 5Y). Acadian Flycatcher: 10 nests—3Y, 2Y, 2Y and 1E, 3Y, 2E, 2Y, 2E, 3 empty nests. Eastern Wood Pewee: 16 June (nest, 3E). Rough-winged Swallow: 10 June (nest, 3Y). Barn Swallow: 20 June (9 nests, 5Y, 29E). Bewick's Wren: 15 July (nest, 5Y). Carolina Wren: 3 July (nest, 4Y). Mockingbird: 4 nests—1E, 5E, 2E, 1Y and 3E. Gray Catbird: 29 July (nest, 2E). Robin: 17 June (nest, 3E). Eastern Bluebird: 2 nests—3Y and 2E, 5E. Blue-gray Gnatcatcher: 3 nests—4Y, 4Y; 1 nest undetermined no. of young. Starling: 10 June (nest, 5Y). Prothonotary Warbler: 22 July (nest with 1 broken egg). Pine Warbler: 11 June (nest, 2Y). Prairie Warbler: 14 nests—3E, 3E, 12 empty nests. Louisiana Waterthrush: 17 June (nest, 3Y and 1E). Common Yellowthroat: 26 June (nest, 4Y and 1E). Yellow-breasted Chat: 4 nests—2E, 3Y and 2 cowbirds, 3E, 1Y and 1E and 1 cowbird. Eastern Meadowlark: 4 nests—4E, 4E, 4E, 4Y. Red-winged Blackbird: 13 nests, 27 eggs. Orchard Oriole: 9 July (nest, 3E). Brown-headed Cowbird: (7 instances of parasitism: Yellow-breasted Chat—2 (1Y, 2Y), Blue Grosbeak—2 (1E, 1E), Indigo Bunting—1 (2E), Rufous-sided Towhee—1 (1E), Field Sparrow—1 (1E). Summer Tanager: 3 nests—3Y, 4E, 2E. Cardinal: 7 nests—2E, 2E, 3E, 3Y, 3E, 3E, 1Y and 2E. Blue Grosbeak: 6 nests—2E, 2E, 3E, 1 cowbird egg, 4E and 1 cowbird egg, 4E. Indigo Bunting: 10 nests—3Y, and 1E, 2E, 2E, 1E, 1E and 2 cowbird eggs, 3E, 3E, 3Y, 3Y. Dickcissel: 17 July (nest, 4Y); 29 July (nest, 4E). Rufous-sided Towhee: 20 June (nest, 2E and 1 cowbird egg). Grasshopper Sparrow: 30 June (nest, 3Y and 2E). Lark Sparrow: 20 July (nest, 2Y and 1E). Chipping Sparrow: 18 June (2 nests, 3Y, 4E). Field Sparrow: 6 nests—3E, 3E, 2E and 1 cowbird egg, 3E, 4Y, 1E and 2Y).

Locations: BV—Buena Vista; CWMA—Catoosa Wildlife Management Area; FP—Five Points, Lawrence Co.; G—Gallatin; G-BBC—Glen Breeding Bird Count; J-BBC—Jasper Breeding Bird Count; NA—Nashville Area; OHL—Old Hickory Lake.

Observers: MLB—Mike Bierly; DC—Dot Crawford; PC—Paul Crawford; KD—Ken Dubke; LD—Lil Dubke; DJ—Daniel Jacobson; MLM—Margaret Mann; CPN—Chuck Nicholson; HR—Heather Riggins; JR—John Riggins; AT—Ann Tarbell; MDW—Morris Williams.

MORRIS D. WILLIAMS, Five Points 38457.

EASTERN RIDGE AND VALLEY—This was a rather normal season with few unusual nesting records. Several Green Heron, Least Bittern, Mallard, and King Rail nests were reported. A Sparrow Hawk raised a brood on the ninth story of a downtown Chattanooga building. Ospreys were unsuccessful at two locations. Evening Grosbeaks remained in the area until at least 23 May. Out of range species included a Purple Gallinule in June near Elizabethton, two immature *WHITE IBIS* in Sequatchie Valley in late June, and a *LOUISIANA HERON* along the Hiwassee River in late July.

Heron-Hawk: Green Heron: 20 May (6 nests, 3 eggs, 21 young) Hawkins Co. (MDW). Common Egret: 23 July (3) HRA (KLD); 24 July (1) HRA (FGH). *LOUISIANA HERON:* 23 July (1) HRA (KLD); 24 July (1) HRA (BB, FGH). Black-crowned Night Heron: 26 July (1 ad., 4 young) AS (GE, LRH, DL, GW). Yellow-crowned Night Heron: 2 July (2 ad., 2 young) AM (RW). *LEAST BITTERN:* 4 nesting attempts, 1 successful at AM (KLD, DJ). American Bittern: 18 June (2), 20 June (1) AM (KD), 23 June (2) AM (DJ). *WHITE IBIS:* 27 June - 2 July (2 im.) SeV (Del Blum, KLD, et al). *Mallard:* 5 nesting attempts at AM (KLD). Blue-winged Teal: 20 May (1), 19 July (1) AM (KLD), 22 July (1) SeV (LS). Common Merganser: 23 May (1) AS (GE, DL). Red-breasted Merganser: 3 June (1), 28 June (1) NL (DJ, LS). Sharp-shinned Hawk: 10 June (1) Tri-cities Airport (MD, HD, SG). Cooper's Hawk: 26 June (1) Lamar (DL, DyL); 7 July (1) RR (KLD, FGH). Broad-winged Hawk: 19 June (1 nestling banded) TRG KLD, DJ, et al). *Osprey:* 2 nesting attempts at Chickamauga Lake and Watts Bar Lake, neither successful (KLD, Donald A. Hammer). Sparrow Hawk: 27 May (3 young fledged from nest on Blue Cross-Blue Shield Bldg., Chat.) first locally known nesting (Chattanooga News-Free Press fide KLD).

Pheasant-Tern: Ring-necked Pheasant: 23 July (2 young) HRA (KLD). *KING RAIL:* (3 nests, 29 eggs) AlM (MDW); 20 May (1), 5 June (1), 27 July (1) AM (KLD). *PURPLE GALLINULE:* 13 June (1) AS (GW). American Coot: 23 May (1) AS (GE, DL), 1 June (1) K (CN). American Woodcock: 26 May (2 ad., 2 young), 14 June (2) AS (GE, DJL). Spotted Sandpiper: regular to 20 May (1-2) AM (KLD); 4 July (2) AS (GE); 15 July (1) MFH (JH, RH). Solitary Sandpiper: regular to 18 May (1) AM (KLD), then (1-4) regular from 13 July. Willet: 31 July (1) AM (KLD). Greater Yellowlegs: 15 July (2) MFH (JH, RH). Lesser Yellowlegs: 1 July (1) SeV (BB), 15 July (1) MFH (JH, RH); 22 July (1) AM (KLD); 26 July (1) AS (DL, GW). Pectoral Sandpiper: 15 July (8), 29 July (12) MFH (JH, RH); 29 July (2) SeV (DJ). *WHITE-RUMPED SANDPIPER:* 19 May (1) SeV (DJ). Least Sandpiper: regular to 22 May (3-11) AM (KLD), then (1-2) sporadic from 13 July; 15 July (3) MFH (JH, RH). *STILT SANDPIPER:* 26 July (1) AS (GE, LRH, GW). Semipalmated Sand-

piper: regular to 29 May (1-23) AM (KLD); 26 July (2) AS (DJL). Forster's Tern: 27 July (6) AS (MD, HD, DL). Common Tern: 31 July (1) SB (KLD). Black Tern: 24 and 31 July (1) SB (KLD).

Cuckoo-Shrike: Black-billed Cuckoo: 18 May (1) Da (DJ). BARN OWL: 18 June (2) AM (KLD, DJ); 3 nests with 5, 5 and 1 young fledged at Johnson City (GE, MDW, et al). WILLOW FLYCATCHER: first 19 May (2) AlM (MDW); 10 June thru period (1 male singing, no nest found) AS (GE, GW, et al). Least Flycatcher: 26 May (1) K (JH). Cliff Swallow: 14 July (1000+) NL (KLD). Purple Martin: noticeable decrease in nesting numbers in Eliz. area (GE); 30 July (6000+) HRA (KLD). Tufted Titmouse: 18 May (1 nest, 4 young) CC (MDW). Short-billed Marsh Wren: 31 July (1) SB (KLD). Swainson's Thrush: 22 May (1) Col (CH). Grey-cheeked Thrush: 16 May (1) Da (DJ). Veery: 18 May (1) Col (CH). Cedar Waxwing: 1 nest in Johnson City, 5 young (HD et al). Loggerhead Shrike: 5 June (2 ad., 1 young) AM (KD).

Warbler-Sparrow: Black and White Warbler: 19 May (1 nest, 3 eggs) K (MDW). Prothonotary Warbler: 15 July (1 nest, 3 young) in box at Warrensburg at Nolichucky River (JH, RH). Golden-winged Warbler: 6 June (2 nests, 5 young each) CC (JCH, MDW). Blue-winged Warbler: 18 May (1) SeV (DJ). Cerulean Warbler: 22 May (31) TRG (KLD). Chestnut-sided Warbler: 22 May (2) TRG (KLD). Louisiana Waterthrush: 18 May (1 nest, 3 young) CC (MDW). MOURNING WARBLER: 24 May (1) AlM (MDW). Wilson's Warbler: 16-22 May (2) K (JH). Canada Warbler: 19 May (4) RR (KLD). Bobolink: 20 and 29 May (2) AM (KLD, FH). Blue Grosbeak: 2 singing males, no nest found at AS (GE, GW, et al). Dickcissel: 10 June (4) HRA (FGH); 2 July (6) MFH (JH, RH). Evening Grosbeak: last 23 May (1) Da (DJ). Red Crossbills: 16 May (4), 20 May (1), 4 June (2) Col (CH). Rufous-sided Towhee: 6 June (1 nest, 4 eggs) CC (JCH, MDW). SAVANNAH SPARROW: 26-27-28 June (1), 29 June (3), 2 July (1 ad., incubating 3 eggs), 7-8 July (1 ad., 3 nestlings), 17 July (1 ad., at least 1 fledgling present), Hawkins Co., 1st known Tenn. nesting (Fred J. Alsop, III). Grasshopper Sparrow: 14 July (1) NL (KLD); 2 July (1) SeV (RW). Vesper Sparrow: 27 July (1) AS (DL, DyL). White-throated Sparrow: 17 May (1) Da (DJ). Song Sparrow: 3 June (1 nest, 5 young) K (MDW).

Observers: BB—Benton Basham; MD—Martha Dillenbeck; HD—Helenhill Dove; KD—Ken Dubke; KLD—Ken and Lil Dubke; GE—Glen Eller; SG—Sally Goodin; CH—Chris Haney; LRH—Lee R. Herndon; FGH—Frank and Gloria Hixon; JH—James Holt; RH—Robert Holt; JCH—Joseph C. Howell; DJ—Danny Jacobson; DL—Dick Lura; DJL—Dick and Joyce Lura; DyL—Danny Leach; CN—Charles Nicholson; LS—Lee Shafer; GW—Gary Wallace; MDW—Morris Williams; RW—Roger Woodruff.

Locations: AlM—Alcoa Marsh; AM—Amnicola Marsh; AS—Austin Springs; CC—Campbell County; Col—Collegedale; Da—Daus; HRA—Hiwassee River Area; MFH—Morristown Fish Hatchery; NL—Nickajack Lake; RR—Reflection Riding; SB—Savannah Bay; TRG—Tennessee River Gorge.

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Correction: The Migrant 44:25, 1973. From Eastern Ridge and Valley Region report reads as follows: Sandhill Crane: 29 Nov.—2 flocks, 10 minutes apart, Da (DJ, DB, JBB), (200) Da (LS); It should read: Sandhill Crane: 29 Nov.—2 flocks, 10 minutes apart, (289) Da (DJ, DB, JBB), (200) Da (LS).

EASTERN MOUNTAIN REGION—The rainfall in late May and early June was above average and the water level has remained higher than normal during the reporting period. The extra rain had no noticeable adverse effects on any reported nestings. The temperature was approximately 1 or 2 degrees above normal.

Several "late" and interesting reports of Pine Siskins have prompted an all out extra search for any "possible nesting evidence", especially on Roan Mountain where birds that acted like young begging to be fed, were observed on 4 July. The Purple Martin population seemed to be down this season with several normally used houses being reported empty. The area has only two reports of accipiters this season. Are they really on a serious decline or are we not reporting them?

Vulture-Raven: Black Vulture: 14 July (1) BR (ETOS). Sharp-shinned Hawk: 28 June (1) RM (MD, HD). Cooper's Hawk: 27 May (1) SC (GE). GOLDEN EAGLE: 21 May (2) RM (MS, TS). SAW-WHET OWL: 5 June (1) GSMNP (MDW). Chuck-wills Widow: 16 May throughout period (1-2) E (JM). Willow (*Fitzbew*) Flycatcher: 14 July (2) SV (ETOS). Common Raven: throughout period (1-3) RM (MS, TS).

Nuthatch-Vireo: Red-breasted Nuthatch: 2 June (2 digging nesting cavity) GSMNP (MDW). Brown Creeper: 5 June (nest with 4 eggs) GSMNP (MDW). Swainson's Thrush: last 24 May (1) SC (DL, JL). Grey-cheeked Thrush: last 21 May (1) EFH (DL, GW). Blue-gray Gnatcatcher: 2 June (nest, adults feeding young) GSMNP (MDW). Solitary Vireo: 2 June (nest, 4 eggs) also 5 June (nest, 3 eggs) both GSMNP (MDW).

Warbler-Crossbill: Swainson's Warbler: 18 May (1 singing male) EFH (MD, SG), 29 June (1) TA (LS), 14 July (1) SV (GE, GW, DL). Chestnut-sided Warbler: 8 June (nest, 2 eggs) GSMNP (MDW). Prairie Warbler: 15 June (late) (1 singing male) E (GE). Blue Grosbeak: 16 May throughout period (1-2) E (JM). Evening Grosbeak: very late 15 June (1 male) E (GE). Pine Siskin: 26 May (8) RM (GE, LRH), 5 June (2) GSMNP (MDW), 4 July (6 observed—1 apparently begging for food) RM (GW, GE). Red Crossbill: 5 June (15) GSMNP (MDW).

Locations: BR—Backbone Rock, E—Elizabethton Area, EFH—Erwin Fish Hatchery, GSMNP—Great Smoky Mountain National Park, RM—Roan Mountain, SC—Siam Community (near Elizabethton), SV—Shady Valley, TA—Tellico Area.

Observers: HD—Helenhill Dove, MD—Martha Dillenbeck, ETOS—Elizabethton Chapter T. O. S., GS—Glen Eller, SG—Sally Goodin, LRH—Lee R. Herndon, DL—Dick Lura, JL—Joyce Lura, JM—John Martin, LS—Lee Shafer, MS—Maxie Swindell, TS—Tommy Swindell, GW—Gary Wallace, MDW—Morris Williams.

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