

# THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

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# THE MIGRANT

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## CHANGING RANGES OF BIRDS IN TENNESSEE

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The abundant information on birds in Tennessee, mostly published in *The Migrant*, makes possible this study of species that have expanded their ranges in the last 150 years, or that have decreased and even disappeared. Twenty-six species have spread into new nesting or wintering ranges, and nine have definitely decreased in range.

Citations to published records are in two forms. Because of the large number of records in *The Migrant*, I have abbreviated most of these to just the volume and page numbers; e.g., (56:63) means that the record was published in Volume 56, page 63, of *The Migrant*. Citations to other journals and to books are given in full, as are those to articles in *The Migrant* which summarize or describe changes in birds' ranges. The common names of species are the standardized names in the sixth edition of the check-list published by the American Ornithologists' Union (1983).

### EXPANDING RANGES

Twenty-six species have obviously expanded their ranges in Tennessee since ornithological records have been kept; these are described below. There are a few others, including Double-crested Cormorant, Little Blue Heron, and Savannah Sparrow, which are apparently becoming established as breeding birds in new areas, but these changes are so recent or erratic that they have been omitted.

ANHINGA—The records of nesting Anhingas in Tennessee demonstrate a history of disappearance followed by recovery with a few appearances in new localities. Rhoads (1895) mentions their presence at Reelfoot Lake but does not report nests. However, the birds probably nested there for many years because in 1932 an estimated fifty nests were found in "Cranetown" at Reelfoot (Ganier 1933b). After 1942 there were no known nestings there until 1977, when one nest was found (53:63), and then another gap occurred until one nest was found in 1985 (56:46), followed by a single nest in 1986 and another in 1987 (Pullin 1980-1988). Outside of the Reelfoot area a single nesting occurred at the Tennessee National Wildlife Refuge near Waverly in 1953 (26:9). Anhingas were observed in the breeding season in McNairy County in 1980 (51:91) and in Lauderdale County in 1986 (57:102). Since 1950, therefore, Anhingas have nested, or were present in the nesting season, in four scattered localities in West Tennessee.

**GREAT BLUE HERON**—Prior to 1919 Great Blue Herons were reported to be rarely present at scattered locations in the state, both in winter and summer, but were not known to nest. The earliest known heronry was at "Cranetown" in Reelfoot Lake, beginning in 1919. The histories of this colony and of some others in Tennessee were summarized by Ganier (1933b, 1951), by Gersbacher (1939, 1964), and by Pitts (1973, 1977, 1982, 1985). The location of Reelfoot heronries has occasionally shifted, but apparently at least one colony has been present in the area since 1919. Between 1980 and 1987 the Reelfoot heronry doubled in size to about 350 active nests (Pullin 1980–1988).

Between 1926 and 1960 new colonies were established in four different counties in or bordering West Tennessee; in chronological order they are Hardin in 1926, Henry in 1936, Humphreys (in the Tennessee National Wildlife Refuge, Duck River Unit) in about 1940, and Weakley in the 1950's. Between 1981 and 1985 several colonies were established along the tributaries of the Obion River in Weakley, Henry, and Carroll Counties; several of these lasted only a few years (Pullin 1980–1988). The most recently discovered heronry in this general area was found in 1986 in Benton County (57:102). In 1985 and 1986 two small colonies were found in Lauderdale County near the Mississippi River (Pullin 1980–1988); their recent history is not clear.

A big range extension for nesting Great Blue Herons began about 1965 when a heronry was discovered near Tullahoma in Coffee County and another a year later on the eastern Tennessee River in Meigs County (Pitts 1977). These birds probably spread from some large heronries along the Tennessee River in northern Alabama. By 1983 the one in Meigs County, at Armstrong Bend, had grown to be the largest in Tennessee. From here nesting herons spread north and south along the Tennessee River until by 1988 there were fifteen colonies between Blount County and Chattanooga (Pullin 1980–1988, J. B. Owen, pers. comm.).

In about seventy years Great Blue Herons have formed new nesting colonies in all sections of the state. In 1987 the Tennessee Valley Authority's survey of nesting herons (Pullin 1980–1988) reported nine active colonies in West Tennessee, including Duck River, with a total of about 900 active nests, one colony near Tullahoma with about 200 active nests, and fourteen colonies along the southern half of the eastern Tennessee River with about 1,000 nests. One result of this growth has been a marked increase in wintering Great Blue Herons in Tennessee (Tanner 1985).

**CATTLE EGRET**—This native of Africa and southern Asia first appeared in the United States in Florida, in 1941 or 1942 (Telfair 1983). The first record in Tennessee was of one bird in Anderson County in May 1961 (32:35), and the second was almost exactly a year later at Columbia (33:48). After that these egrets were observed at irregular intervals and scattered locations. By 1970 they had reached all but the northern counties of Middle and East Tennessee, and by 1978 they had been observed in all parts of the state except the eastern mountains.

The numbers of Cattle Egrets reported on Spring Field Days (made in late April or early May) increased from year to year most rapidly in West Tennessee and most slowly in East Tennessee (Tanner 1986). Fall records have increased in recent years, and the first of these birds on a Christmas Count was in 1984 at Reelfoot Lake (56:9).

Cattle Egrets have been known to nest in only five areas in the state: at Dyersburg in West Tennessee from 1964 through 1969 (Pitts 1977), on Cherokee Lake in East Tennessee from 1975 (Pitts 1977) through 1984 (Pullin 1980–1988), at Hales Point, Lauderdale County, in 1985 (Pullin 1980–1988), and in 1987 in Stewart and Sumner Counties (58:139).

These egrets have spread across Tennessee in less than twenty years. The general trend of increasing numbers was from west to east.

**BLACK-CROWNED NIGHT-HERON**—There are no records of nesting Black-crowned Night-Herons in Tennessee prior to 1900. The oldest colony in the state was established about 1908 near Bordeaux, Davidson County (Pitts 1973), and is still extant. A few of these herons nested at Reelfoot Lake in 1933, 1934, 1938, and 1964, with none known since then (Pitts 1985). Two nests were found near Ridgley, Lake County, in 1950 (Ganier 1951).

The real range expansion began in East Tennessee about 1950. In 1952 a small colony was found in Blount County (Howell and Monroe 1957). Fourteen years passed before a second colony was observed a few miles from the first, in 1966 in Knox County; then new colonies appeared in 1972 in Hawkins County and in 1974 on Cherokee Lake in Grainger County (Pitts 1977). Between 1974 and 1986 colonies were established in Sevier County (48:42; 57:113), and in Loudon, Monroe, and Roane Counties (Pullin 1980–1988). Some of these colonies persisted only a few years.

A second nesting site in Middle Tennessee was found in 1975 on Old Hickory Lake in Sumner County (Pitts 1977).

In 1985 the number of nesting Black-crowned Night-Herons was highest in East Tennessee and lowest, perhaps none, in West Tennessee. The expansion of colonies has resulted in a noticeable increase in the number of these herons seen in winter (Tanner 1985).

**YELLOW-CROWNED NIGHT-HERON**—The earliest recorded nests in Tennessee of this night-heron were near the western Tennessee River just north of the Mississippi state line: in Hardin County in 1926 (Ganier 1951) and in Hardeman and McNairy Counties in 1939 (Calhoun 1941). From this area the range seemed to expand erratically to at least twelve localities in West and Middle Tennessee. Mentioning only the extremes, nestings were reported from Reelfoot Lake in 1942 (Ganier 1951), but from Memphis not until 1970 (41:57); first nests at Nashville were found in 1949 (Ganier 1951), at Tennessee National Wildlife Refuge in 1966 (letter from J. H. Burbank), and in Rutherford County in 1982 (56:13).

In East Tennessee the first nestings were at Chattanooga in 1967 (38:66). The known nesting range then expanded northeastward up the Tennessee River valley as nests were found in Blount County in 1974 (49:81), in Sevier County in 1978 (49:93), and in Carter County in 1979 (50:71).

Besides the nesting reports summarized above, there have been many observations of adult and immature Yellow-crowned Night-Herons present during the summer at scattered localities in the state. Since these birds are both nocturnal and quiet and they build inconspicuous nests, the above account of their range expansion is undoubtedly incomplete.

**CANADA GOOSE**—Canada Geese nested regularly at Reelfoot Lake for an unknown period before 1900 (Pindar 1886, Rhoads 1895); Ganier (1933b) did not find any records of nesting after that date.

At a pond in Greene County in 1953 a pair including a crippled bird nested successfully (34:35–36) and started a resident flock that persisted for several years; Canada Geese were reported on Spring Field Days at Greeneville quite consistently through 1968.

Individuals of the nonmigratory race, the Giant Canada Goose, were introduced into several areas by the Tennessee Wildlife Resources Agency beginning about 1968; there appears to be no published history of these introductions. The first successful nestings reported were on Old Hickory Lake in 1969 (40:68), on Percy

Priest Lake in 1970 (41:69), and at Cross Creeks in 1972 (43:76), all in Middle Tennessee. Within a few years summer resident geese and nests were reported in all regions of the state except extreme southwestern Tennessee. The most southwestern locality is the Hatchie National Wildlife Refuge, Haywood County, where geese first nested in 1975 (letter from Linda Watters).

**OSPREY**—Ganier's preliminary list of Tennessee birds (1917) describes the Osprey as only a migrant. The first known nests in the state were at Reelfoot Lake, but it is not clear when nesting started there. Ganier (1933b) stated only that "one or two pair . . . are found on the lake during the summer," but a 1963 report (34:22) mentioned a nest site "used for thirty or forty years." In recent years two to four pairs have nested at Reelfoot (Pitts 1985).

The areas in which nesting Ospreys next appeared were in East Tennessee. For several years all attempts at nesting were unsuccessful: in Knox County in 1937 (8:53), in Greene County in 1940 (27:4), and on Watts Bar Lake in 1961 (32:44). At the latter locality, unsuccessful attempts continued for several years, but finally in 1977 some young Ospreys fledged (48:105). After this the Osprey population on Watts Bar and nearby Chickamauga Lakes increased to fifteen nests in 1986 and seventeen in 1987 (Simpson 1987).

The first successful nest in Middle Tennessee was in 1984 at the Tennessee National Wildlife Refuge (55:91). More recently, in 1987, Ospreys nested successfully at Old Hickory Lake, Sumner County (58:140).

From being a bird not known to nest in Tennessee in the early part of this century, the Osprey has increased to a small but well established breeding population at Reelfoot Lake, an expanding population along the eastern Tennessee River, and apparently the beginning of a breeding population in Middle Tennessee.

**BALD EAGLE**—Three to four pairs of Bald Eagles nested at Reelfoot Lake up to the 1930's, after which their numbers declined and they ceased nesting there in the early 1960's (Pitts 1985). Eagles visited all parts of the state as migrants and winter visitors, and the wintering populations have increased greatly, especially in the northwestern corner of Tennessee. In 1980 a project was initiated of introducing eagles by hacking young birds (55:83), which led to some of the successful nestings in recent years.

The first successful nest in twenty years was in 1983 at Cross Creeks National Wildlife Refuge, Stewart County. By 1986 there were four successful nests, two in Stewart County and one each in Benton and Jackson Counties (57:106-107). Another locality is in Coffee County where beginning in 1985 eagles have built or repaired a nest, only to abandon it in three successive years (56:110; 58:140). All of these new breeding pairs are nesting in or very close to Middle Tennessee.

**BLACK-NECKED STILT**—The regular nesting area of the Black-necked Stilt nearest to Tennessee is the Gulf Coast of Louisiana. In 1981 two birds were observed in Shelby County for the first state record, and in 1982 a pair nested in Ensley Bottoms in that county; these and subsequent observations of stilts in that area were described by Coffey (1985). The species has not been seen outside of this corner of the state except for one bird at Clinton in Anderson County on one day in August 1985 (57:19-20).

**ROCK DOVE**—Quoting from a note written by Albert F. Ganier in 1935 (6:93): "The Rock Dove . . . was brought to America as a domesticated bird. . . . When the writer prepared his list of the birds of the State in 1933 he did not include the Rock Dove because he knew of no places where it had naturalized in the State. Last summer, however, while inspecting the vast old rock quarry a few miles southwest of Franklin, he found that a number of these birds had taken up permanent residence there. They were nesting within cavernous recesses in the

quarry face which is more than 100 feet high and several hundred feet long. Under the circumstance it is now proper to include this species in the Tennessee list." Because of the common attitude that the Rock Dove was not a "real" wild bird, it was not listed in the Christmas Bird Counts in Tennessee until 1958, and the lack of early records makes it impossible to trace its history.

**ALDER FLYCATCHER**—This species (*Empidonax alorum*) and the following (*E. traillii*) have been observed on migration in scattered locations in the state, although records are few because of the difficulty of identifying these birds.

Alder Flycatchers have apparently nested at only one place in Tennessee, near Carver's Gap on Roan Mountain, Carter County. Nesting was first observed in 1978 (49:95). Since this area was visited frequently and over many years before this time, it is improbable that nesting flycatchers were overlooked for long, if at all. Nesting pairs have been found there several times since 1978.

**WILLOW FLYCATCHER**—The first nests of Willow Flycatchers in Tennessee were found in 1958 at Elizabethton (29:37-42). Between then and 1965 two more nesting localities in northeastern Tennessee were found (31:55; 35:66). The known nesting range gradually expanded to the south and west, reaching its southern limit in 1968 when two nests were found in the Hiwassee River area of Meigs County (40:70) and its western limit in 1972 when one was found near Nashville (43:76). By 1986 Willow Flycatchers have been found singing and behaving like breeding birds at nearly twenty locations (numerous reports in *The Migrant*), although no nests have been reported from these places. These localities are north and east of a line extending from Reelfoot Lake to Columbia and then to Chattanooga. The trend in range expansion has clearly been from the northeastern corner of Tennessee southwestward down the East Tennessee Valley and westward across the northern part of the state.

**EASTERN PHOEBE**—This species is a regular migrant and winter resident throughout the state, but prior to 1940 nesting phoebes were known only north and east of a line extending eastward from the Tennessee River at the Kentucky border and passing south of Nashville, Murphreesboro, and Athens. South of that line they were apparently absent except for one record of phoebes nesting in Wayne County in 1938 (9:53).

First nesting records south of that line are few. Phoebes were reported nesting in Shelby County in 1942 (13:34), at several places along US 64 from the Tennessee River east to Waynesboro in 1948 (19:5), and at Chattanooga in 1961 (32:39). These records probably do not give a complete picture of the expansion of nesting phoebes southwestward because they have been found regularly in all breeding season forays held by TOS members since 1971, covering counties in all parts of the state.

**TREE SWALLOW**—In Ganier's preliminary list of Tennessee birds (1917) he described Tree Swallows as migrants, not breeding in the state. Later he published (35:51) a first record of these swallows nesting at Reelfoot Lake in 1918. The changes in nesting distribution from then until 1982 have been summarized by Nicholson and Pitts (1982). After the 1918 record there were no summer records until 1942, which was from Lauderdale County, and no nesting records until 1968 when a pair nested near Columbia and another near Norris, Anderson County. In the 1970's Tree Swallows nested at five new localities and from 1980 to 1986 at nine. Except for the increasing rate, there is no obvious pattern of expansion. Tree Swallows have by now nested in all sections of the state except for southern East Tennessee (south of Blount County) and Middle Tennessee south and east of Maury County.

**CLIFF SWALLOW**—Tennessee is near the southeastern corner of the breeding

range of these swallows. There are three localities in the state which have had nesting colonies for many years. The northernmost is on the Cumberland River in Stewart County, where nests were present on the locks controlling the river by 1936 (this and the following colony described by Ganier and Weakley, 1936). The southwestern colony was on a rock face called Swallow Bluff on the western Tennessee River in Decatur County, also by 1936. The southeastern colony was on the Market Street bridge in Chattanooga in 1942, reported by Coffey (13:47-48) who wrote that a local person said that the swallows had been there for several years.

The changing distribution of nesting Cliff Swallows through the year 1977 has been described by Alsop (1981). His maps and more recent records show an interesting pattern of spreading from the three early colonies. From the one on the Cumberland River swallows gradually colonized bridges upriver, reaching Nashville by 1960 and Jackson County by 1986 (57:108-109). On the western Tennessee River, colonies had been formed from the southern to the northern state lines by 1963, and had spread eastward in the Duck River system as far as Coffee County by 1986 (57:108-109). From the Chattanooga area there occurred a gradual expansion up the eastern Tennessee River and its tributaries; nesting colonies were present in 1961 at Dayton in Rhea County and in 1970 in Grainger County (Alsop 1981). The swallows' nesting had reached northeastern Tennessee at Watauga Lake by 1984 (55:95).

In addition to the spread of Cliff Swallows from the three earliest known nesting locations, colonies had formed in West Tennessee which seem to be outside the directions of the range expansion described above: in Shelby County in 1973 and in Hardeman County in 1977 (Alsop 1981).

**BARN SWALLOW**—The earliest and a unique record of a Barn Swallow nest in Tennessee is of a nest "in an old barn" near Bell Buckle, Bedford County, in 1893 (McEwen 1894). The next record states that by 1922 there were several nesting colonies near Nashville (Ganier 1922), and these were then believed to be at the southern limit of the swallows' range. By 1933 several sets of Barn Swallow eggs had been collected in the East Tennessee Valley from Athens northward (5:3). After that year the nesting range seemed to expand rapidly to the south and west, although there are few good records of first nesting in any area except Shelby County where they nested first in 1935 (41:57). They were observed nesting in Lincoln County in 1937 (46:31), near Jackson in 1952 (23:49), and near Pickwick in 1954 (25:52). By 1967 Barn Swallows had been observed on all breeding bird census routes in Middle and West Tennessee, including routes in the southern tier of counties: Wayne, Lawrence, and Giles (39:4-5).

**BROWN-HEADED NUTHATCH**—These southern nuthatches have often been observed a few miles south of the Tennessee border. The first report of this species in Tennessee was at Collegedale, Hamilton County, in 1968. Haney (1981) described this record and others in Hamilton County; he also described a few records from other areas where the birds have not been seen again. In 1985 a nest was found in Cleveland, Bradley County, fifteen miles northeast of the earlier sites (56:80). Twice these nuthatches have been observed on Christmas Bird Counts in southern Meigs County, in 1985 (56:8) and 1987 (58:4).

**BROWN CREEPER**—This species is a regular winter resident across Tennessee and a breeding bird in the Smoky Mountains (Stupka 1963). The first known lowland nesting occurred in 1976 at Radnor Lake near Nashville (49:86-87); a pair nested there just one year. In the following year a nest was observed being built in Dyer County, only to be abandoned, but in 1979 a nest with young was found in the same area (50:81-82). Ford (1987) described the presence of singing



Brown Creepers in May, June, and July in 1985 and 1986 in five counties in West Tennessee from the northern to the southern boundaries; no nests were found. The most recent new location is Bays Mountain, Sullivan County, in East Tennessee, where in 1987 a creeper's nest with young was found (58:104).

The generally recognized southern breeding boundary of Brown Creepers outside of the Appalachians is in the Great Lakes region. The recent records in Tennessee suggest that individual pairs of creepers may nest south of the usual range if they find suitable habitat and a nesting site.

**HOUSE WREN**—Few of the early ornithologists in Tennessee observed House Wrens even as transients, and none found nesting birds. Herndon (1956) summarized the records of this species in the state through 1955; the earliest reported nest was in 1913 at Johnson City, and all nests found up to 1955 were in East Tennessee from Knoxville northeastward.

After 1955 the reports of nesting House Wrens indicate two trends. The first was an irregular expansion westward across the northern half of the state and then southward in West Tennessee. The first nesting in Nashville was in 1957 (28:43), in Dyersburg in 1976 (50:86), at Byrdstown in 1978 (49:68), in Memphis in 1979 (50:86), in Union City and Martin by 1984 (56:36–37), and at Gallatin, Dover, and Clarksville by 1985 (56:111).

The second direction of expansion was southwestward in the East Tennessee Valley. Surprisingly, this movement was slower than to the west. Although House Wrens were nesting in Knoxville by 1950, nestings were not reported from localities to the southwest until 1984 in Chattanooga (letter from K. H. Dubke), and 1986 in Maryville and Cleveland (57:114). By 1986 House Wrens were nesting in all sections of the state except southern Middle Tennessee and southeastern West Tennessee.

**EUROPEAN STARLING**—Introduced into the New York City area in 1890 (Chapman 1932), Starlings were first reported in Tennessee in 1921 at two localities, Bluff City, in Sullivan County in northeastern Tennessee, and Nashville (Ganier 1924). In the next seven years they appeared at Knoxville in 1923 (33:19), Athens in 1926 (Trenholm 1926), and Memphis in 1928 (3:48). In five more years they had appeared in all sections of the state and their numbers increased so that in 1934 they were reported from all Christmas Bird Counts in Tennessee and large winter roosts were present in all regions.

All but one of the first appearances of Starlings at a locality were in fall, winter, or early spring, but nesting was observed in a very few years. In 1925 nests were found at Bristol and Knoxville (Ganier 1925), in 1926 at Athens (Trenholm 1926), and in 1928 at Nashville (Ganier 1928). In West Tennessee the first observed nestings were in 1933 at McKenzie (5:42) and in 1935 at Memphis (6:34).

The general trend of first appearances and of first nestings in Tennessee was from northeast to southwest. Most Starlings wintering in Tennessee also come from the northeast; of birds banded near Memphis in the winters of 1934 through 1936 (Coffey 1938), three were recovered near the point of banding and twenty were recovered from areas 300 to 1,000 miles to the northeast.

**BLUE GROSBEAK**—In Ganier's lists of Tennessee birds (1917, 1933a) he wrote that the Blue Grosbeak was a "rare" summer resident in West Tennessee, "very rare" in Middle Tennessee, and absent in East Tennessee. Coffey (1955) summarized early records in the Memphis area, including a nesting record from 1947 at Grand Junction, Hardeman County. Goodpasture (1968) did the same for the Nashville area, where the first recorded nest was in 1962. Most of the records of this grosbeak's first appearance in an area were for the years 1945 through 1959. These do not form a pattern of steady range expansion, but rather

they are scattered across all parts of the state. In East Tennessee the first record of presence during the nesting season was in 1943 in the Great Smoky Mountains area (Stupka 1963), and the earliest recorded nest was in 1951 at Knoxville (22:44). After 1968 almost all of the Spring Field Days in the state reported Blue Grosbeaks, and all county forays conducted since 1971 have found this species, so it is now an uncommon but regularly nesting bird in open and agricultural land over the state.

**SONG SPARROW**—Song Sparrows have been regular winter residents and migrants in all parts of Tennessee for many years (Ganier 1917, 1933a). They probably nested in the northeastern corner of the state almost a century ago because Rhoads (1895) reported them present in June at Johnson City and along the Doe River in Carter County, but none at other areas he visited. By 1938 Song Sparrows were reported as nesting at Shady Valley (5:23), Roan Mountain (7:86), Johnson City, Greeneville, and Knoxville, with no nesting reported from south or west of Knoxville (9:46–50).

First records of nesting in other regions of the state, arranged chronologically, are: 1952 at Cookeville (24:54), 1966 at Crossville (37:41), 1968 at Nashville (39:65), 1972 near Winchester (43:77), 1984 at Columbia (55:71), and 1986 near Murphreesboro (57:110).

Other areas have had Song Sparrows present in the nesting season and singing or otherwise behaving like breeding birds; significant reports in chronological order are: 1942 at Chattanooga (13:48), 1953 at Tracy City (24:54), and 1976 in Benton County (47:83). Reelfoot and Memphis have had several sporadic records of single birds present in the nesting season, and there is one report of a juvenile Song Sparrow near Reelfoot in 1976 (47:99). Concerning this area, however, Pitts (1985) wrote that "the small and irregular number of nesting season records indicates it is not yet established as a nesting species."

In summary, Song Sparrows nested in the northeastern mountains and the upper East Tennessee Valley before and during the 1930's. They became established as breeding birds in the northeastern half of Middle Tennessee by 1975. As of 1987 there are no solid nesting records south or west of Columbia.

**BROWN-HEADED COWBIRD**—Mayfield (1965) believed that the cowbird's original range was the short-grass prairie and similar grasslands, perhaps only in areas where bison were common, and that their range expanded eastward as cattle herding and farming created suitable habitat. The only records in Tennessee prior to 1900 were in April 1885 in Roane County (Fox 1886) and in early May at Samburg, Obion County (Rhoads 1895). In his 1917 list of Tennessee birds, Ganier listed cowbirds as rare summer residents in West Tennessee and very rare in Middle and East Tennessee. The following records indicate, however, that breeding did not occur in East Tennessee until much later than 1917.

The presence of cowbirds on spring migration and the fact that their breeding can be proved only by finding their eggs in the nests of other species has resulted in few definite records of first breeding in any area. The following records, listed chronologically, indicate that at least by 1935 cowbirds were breeding in all sections of the state: in 1918 and succeeding years cowbird eggs were found in bird nests in Davidson County (7:32); in 1921 a cowbird egg was found in a Prothonotary Warbler's nest near Memphis (Ganier 1921); in 1931 cowbird eggs were first found in northeastern Tennessee (5:56); and in 1932 the first breeding apparently occurred at Knoxville (3:38), because there is good evidence against their having bred there in prior years (Howell and Monroe 1957); in 1936 immature cowbirds were present in June and July at Reelfoot Lake (Whittemore 1937); and in 1935 cowbird eggs were found in bird nests in Rutherford County (7:72). By

the 1960's several lists of birds from regions across the state had been published and all of them listed the Brown-headed Cowbird as a regular summer resident.

**HOUSE FINCH**—A native of the Rocky Mountains and Pacific Coast, the House Finch was introduced about 1940 into the northeastern United States where it spread rapidly. The first locality in Tennessee where they were observed was Greeneville, in March and November–December 1972 (43:87). The following year they appeared at Maryville and Knoxville (45:24, 96). In 1977 they appeared in Middle Tennessee in Columbia (48:48) and Cheatham County (49:43). They reached the southern part of East Tennessee at Chattanooga in 1979 (51:33). The first reports from West Tennessee were from Humboldt, Gibson County, in the winter of 1979–80 (Sarah Hayes, letter from Martha Waldron) and from Memphis in 1980 (51:38).

All records from 1977 and earlier were from winter and early spring. In the next year some House Finches were observed through June at Maryville (49:95) and in April 1979 at Nashville (50:69). First records of reproduction were of adults feeding juvenile birds in 1979 at Knoxville (51:95) and in 1980 at Kingsport (51:62). Further spread of nesting finches is shown by the following reports: at Chattanooga in 1982 (53:69), at Nashville in 1984 (55:93), at Lawrence and Sumner Counties in 1985 (56:112), in Montgomery County in 1986 (57:111), and possibly as early as 1982 at Memphis (57:104).

House Finches have spread from the northeast corner of the state to the west and south, first occupying residential areas of larger cities. At present, sixteen years after their first appearance, they are regular winter visitors and breeding birds in all sections of East and Middle Tennessee and in the southern half of West Tennessee.

**EVENING GROSBEAK**—The earliest report of this species in Tennessee was in Van Buren County in 1936 (18:45); this was not confirmed. The sustained invasion of the state by Evening Grosbeaks began in the winter of 1945–46 when they were present in the northeastern corner of the state, in Carter, Washington, and Greene Counties (16:53–55; 27:8). In the winter of 1951–52 grosbeaks appeared there again and farther southwest in the Great Smoky Mountains and at Kingston, Roane County (25:7–9). Although they did not appear every winter they gradually extended their range south and west in succeeding winters until in 1968–69 they were seen in all sections of West Tennessee including the Memphis area (39:75). There were, however, no records of Evening Grosbeaks in the southern tier of counties from the Cumberland Plateau west through Wayne County until after 1970.

The expansion of Evening Grosbeaks from the northeast to the south and west across the state is paralleled by two other sets of data. Banding returns revealed that grosbeaks migrated between Elizabethton, Tennessee, and four states to the northeast (West Virginia, Pennsylvania, New Jersey, and New York) and only one state to the north, Michigan (Herndon 1979). Secondly, analysis of Christmas Bird Counts (Tanner 1985) showed that Evening Grosbeaks have been most frequent and in largest numbers in the Great Smoky Mountains, with the frequency and numbers decreasing westward.

**HOUSE SPARROW**—This species was introduced from England into the New York City area in 1850 (Chapman 1932). There is no record of when House Sparrows first appeared in Tennessee. Fox (1886) reported them present in Rockwood, Anderson County, in 1884, and Langdon (1887) reported a few seen in Knoxville and Maryville in 1886. Deaderick (1899) described them as abundant in Montgomery County in 1891 to 1895. Torrey (1896) called them "distressingly superabundant" at Chattanooga in 1894. Rhoads (1895), who visited the four

corners of Tennessee in 1895, found them "abounding in all larger towns and villages." So by 1895 these sparrows were common in all parts of the state.

#### DECREASING RANGES

Nine species of birds have certainly decreased in range; two of these are now extinct, and two others have entirely disappeared from Tennessee. Besides the nine described below, the Loggerhead Shrike and Dickcissel have decreased in number in the state, but there has been no consistent contraction of their ranges.

**TRUMPETER SWAN**—Although Trumpeter Swans were in early times a fairly numerous migrant and winter resident from the junction of the Ohio and Mississippi Rivers southward (Mengel 1965), only a few have definitely been reported from Tennessee. Audubon saw some on the Mississippi River in Lauderdale and Tipton Counties in November 1829 (11:60–61). Pindar (1925) reported this swan as a rare migrant, presumably on Reelfoot Lake in 1884–89, and Rhoads (1895) reported a few on Reelfoot Lake in 1895. Soon after this time, Trumpeter Swans disappeared from the southeastern part of their range until by the 1930's (Kortright 1943) they remained only in the northern Rocky Mountain region.

**PEREGRINE FALCON**—Peregrine Falcons once nested in about twenty places in Tennessee. Most of these were on the cliffs bordering the western edge of the Cumberland Plateau: in Pickett, Fentress, and Scott Counties to the north (53:28); at Fall Creek Falls State Park in Van Buren County (14:60) and Savage Gulf in Grundy County (4:38); and in the Tennessee River Gorge in Marion County (10:14) to the south. Three eyries were known in northeastern Tennessee: in the Doe River Gorge in Carter County (17:23; 21:60); on the Devil's Looking Glass near Erwin, Unicoi County (4:43); and on Dorn's Bluff on the Holston River in Sullivan County (4:43; 6:18). Two old eyries were located on river cliffs near Knoxville (11:3; Wake 1895), and a third near Signal Mountain, Hamilton County (Spofford 1942); information on this last site is very vague. Peregrines nested at two locations near Mount LeConte in the Great Smoky Mountains (Stupka 1963). The most isolated, unusual, and best described eyrie was in the broken top of a cypress tree at the northern end of Reelfoot Lake (Spofford 1942, 1943).

The disappearance of these falcons from eastern North America was caused by the harmful effects of DDT and similar insecticides on their reproduction (Hickey and Anderson 1968). The last known nesting in the Cumberland Plateau was in 1940 in Fall Creek Falls Park (11:55). The last reported nest in northeastern Tennessee was on Dorn's Bluff in 1935 (6:18–19). In the Smokies, Peregrines last nested in 1942 (Stupka 1963). Apparently the last successful nest in Tennessee was in 1947 at Reelfoot Lake (18:49–51; 56:34). Here, as at other eyries, individual Peregrines continued to be present in the breeding season for several years without any evidence of nesting.

A moderate number of migrant Peregrines and a few wintering birds are reported in Tennessee almost every year. Recently a determined effort has been made to re-establish nesting Peregrines in the state by a hacking program (55:83), which we hope will be successful.

**GREATER PRAIRIE-CHICKEN**—The only record of a living prairie-chicken in Tennessee was made by Alexander Wilson in 1810 somewhere north of Nashville (Ganier 1974). These birds were then fairly common in The Barrens of southern Kentucky from where they disappeared "in the first few decades of the nineteenth century" (Mengel 1965). Bones of prairie-chickens have been found in caves in southeastern Tennessee, but the age of these fossils was not determined (45:82–83).

**WILD TURKEY**—The history of turkeys in Tennessee has been summarized

by Vincent Schultz (1955) and J. C. Lewis (1962); the following is a condensation of these two reports. Turkeys were originally found in all sections of the state from the eastern mountains to the Mississippi bottomlands. They disappeared first from the Central Basin and then from the better farming regions of the northern Highland Rim, West Tennessee, and the East Tennessee Valley. Between 1940 and 1951 they were almost limited to the eastern mountains, the Cumberland Plateau, portions of the western Highland Rim, and portions of the Mississippi and Hatchie River bottoms. Release of turkeys raised on game farms began at least by 1941, but the range continued to decrease until by 1959 turkeys were known from only 32 counties. In more recent years turkeys have been trapped in some areas and transported to others where they survived, so that by now Wild Turkeys are more widespread in Tennessee than they were twenty years ago.

**PASSENGER PIGEON**—Passenger Pigeons were considered by Ganier (1974) to have been regular migrants in all of Tennessee but not breeding in the state. All of the Tennessee records assembled by Schorger (1955) for the years after 1840 came from the section of the state between Brownsville to the west and Nashville to the east. An article in an early issue of *The Migrant* (4:18–19) describes a large roost near Nashville in the autumn of 1870. The last record for Tennessee came from a correspondent of Rhoads (1895) who described hunting of pigeons near Brownsville, Haywood County, in 1893. For Passenger Pigeons in the wild, Schorger (1955) wrote that “the year 1900 may be considered as marking the end.”

**CAROLINA PARAKEET**—Records of the Carolina Parakeet made by early travelers in Tennessee have been found and summarized by Daniel McKinley (1979). Most of the observations were made along the Mississippi River and in counties (Lauderdale and Haywood) whose rivers flow into the Mississippi. Other records were made along the western Tennessee River from Stewart to Wayne County, and along the Cumberland River from near Nashville as far east as Smith County. The last observations of parakeets in Tennessee were made in 1874 (Lauderdale County) and 1876 (Haywood County).

The species neared extinction by 1900 from several causes: killing of parakeets to protect fruit trees, trapping for cage birds, and random shooting of these colorful and tame birds. The last specimens ever collected were in Florida in 1904 (Chapman 1932).

**COMMON RAVEN**—Alexander Wilson wrote that he frequently saw ravens when he travelled from Nashville to Natchez in 1810 (Ganier 1974, Nicholson 1986). This appears to be the only report of ravens west of the Cumberlands in Tennessee. Between 1882 and 1908 ravens were found at Lookout Mountain, Hamilton County, and on Walden Ridge in the eastern Cumberlands (Fox 1882, 1886; Rhoads 1895; Howell 1910). Ganier (1923, 1974) received occasional rumors of ravens in the western Cumberlands which, if correct, indicated that they nested there as late as 1920. Since that time ravens have been reported regularly only from the Appalachian Mountains along the eastern margin of the state, from Hump Mountain in Carter County (8:1; 20:30) to Big Frog Mountain in Polk County (Wetmore 1939).

**BEWICK'S WREN**—These wrens were found in all sections of the state visited by early ornithologists, but they were usually reported to be present in small numbers. Ganier (1933a) described their status as “fairly common” in each of the three regions of Tennessee. Their numbers reported on Christmas Bird Counts began to decrease in 1965 (Tanner 1985). The changes in numbers and distribution can best be described by considering the regions separately.

In the northern part of West Tennessee Bewick's Wrens were missing from Spring Bird counts after 1967 and from Christmas Bird Counts after 1972. Breed-

ing bird surveys around Reelfoot Lake in 1985 found none (Pitts 1985). In the southern part of this region this wren has been reported from only a few localities since 1974, and is considered now to be rare (Waldron 1987).

In Middle Tennessee, Bewick's Wrens have been reported on Christmas Bird Counts with the highest frequency and average numbers of any region; it has been found quite consistently on Spring Bird Counts, and in 1987 a surprising number were found nesting in Houston and Stewart Counties (58:141-142).

For East Tennessee, Christmas Bird Counts after about 1940 had the lowest frequency and average number of Bewick's Wrens of the three major regions. Combining the East Tennessee Valley with the Cumberland Plateau, the last records in *The Migrant* were of single birds in 1977 in Cumberland County (48:106) and 1978 in Knox County (49:70). The species disappeared from Spring and Christmas Counts in this region between 1971 and 1976.

**BACHMAN'S SPARROW**—The habits and history of Bachman's Sparrow in Tennessee have been described by C. P. Nicholson (1976). The species was formerly found throughout the state except for the northwestern quarter of West Tennessee. A trend of decreasing range and numbers began about 1960 or earlier, being most pronounced in West and Middle Tennessee. In 1975 the species was listed as "endangered."

Beginning in 1980 Bachman's Sparrows have re-appeared, or been rediscovered, in areas where they were unknown for several years. These areas are as follows: McNairy, Hardeman, Hardin, and Fayette Counties in southern West Tennessee (55:37, 68; 58:138); Henry, Montgomery, and Stewart Counties in the northern part of the western Highland Rim (57:80, 104; 58:142); Giles, Lawrence, and Lewis Counties in southern Middle Tennessee (58:99, 142); at Westel in Cumberland County (51:63); and in Coker and Grainger Counties in the upper East Tennessee Valley (52:98; 56:81). These records, erratic in both place and time, are consistent with the hypothesis that the habitat of Bachman's Sparrow is a temporary stage in forest succession (see Nicholson 1976) and therefore suitable habitat appears and disappears in different places. This, however, is not an adequate explanation of the widespread decrease because there appears, to the human eye at least, to be many suitable areas unoccupied by these sparrows. The cause of the overall decline is unknown.

#### DISCUSSION AND CONCLUSIONS

The histories of the 26 species whose ranges have expanded in Tennessee exhibit a few geographic trends. Six species were first found in the northeastern corner of the state and their ranges expanded southwestward down the East Tennessee Valley and westward to Middle and West Tennessee and then southward. These six are Willow Flycatcher, House Wren, European Starling, Song Sparrow, House Finch, and Evening Grosbeak. All except the grosbeak now breed in Tennessee. Two other species, Eastern Phoebe and Barn Swallow, similarly expanded towards the southwest, but they were originally known to nest in a larger area, the northeastern quadrant of the state.

The direction of spread of four species was opposite to the above, being towards the northeast; these are Cattle Egret, Yellow-crowned Night-Heron, Blue Grosbeak, and at least in the East Tennessee Valley, Osprey. One, the Brown-headed Cowbird, expanded to the southeast.

The geography of the larger rivers and the formation of new reservoirs has obviously affected the range expansions of Anhinga, Great Blue Heron, Black-crowned and Yellow-crowned Night-Herons, Osprey, and Bald Eagle. The construction of concrete bridges and dams on rivers and creeks, providing nesting

sites, has increased the ranges of Eastern Phoebes and Cliff Swallows, and to a lesser extent, of Barn Swallows.

Three species have entered corners of Tennessee and nested several times in these localities but have not further expanded their ranges more than a few miles; these are the Black-necked Stilt, Alder Flycatcher, and Brown-headed Nuthatch. The remaining species cannot be fitted into a pattern of range expansion because of lack of information (House Sparrow, Rock Dove), because of an erratic spread (Tree Swallow, Brown Creeper), or because the birds were introduced into most areas by man (Canada Goose).

The House Sparrow was the earliest of the species considered here to enter and spread across Tennessee; it had reached all regions before 1900. To illustrate the sequence of other range expansions, the species can be grouped tentatively by the decade in which they entered the state or began to spread as follows: in the 1920's—European Starling; in the 1930's—Barn Swallow; in the 1940's—Blue Grosbeak and Evening Grosbeak; in the 1950's—Anhinga, Black-crowned Night-Heron, Eastern Phoebe, House Wren, and Song Sparrow; in the 1960's—Great Blue Heron, Cattle Egret, Willow Flycatcher, Cliff Swallow, and Brown-headed Nuthatch; in the 1970's—Yellow-crowned Night-Heron, Osprey, Alder Flycatcher, Tree Swallow, Brown Creeper, and House Finch; in the 1980's—Bald Eagle and Black-necked Stilt. The Canada Goose, Rock Dove, and Brown-headed Cowbird cannot be significantly classified into any period.

Most of the range expansions occurred between 1950 and 1979. This conclusion cannot be made confidently, however, because this was also a time of increasing number of birdwatchers and their activity. I cannot suggest any environmental changes which might have caused the expansions other than the formation of reservoirs and building of concrete structures as described above. There is no correlation between the decade of range expansion and the direction of expansion.

Of those species which have decreased in Tennessee, five did so because of hunting by man. The Passenger Pigeon and parakeet became extinct. The Trumpeter Swan and prairie-chicken were eliminated from the southeastern part of their ranges, which included northwestern Tennessee. The Wild Turkey was reduced by both hunting and clearing of forests; it is now increasing because of game management. The Raven might be added to this list although there is no direct evidence of what caused its disappearance from all but the Appalachian Mountains.

The cause of the disappearance of Peregrine Falcons was clearly the failure of their reproduction due to concentrations of DDT and similar chemicals.

The causes of the shrinking ranges of Bewick's Wrens and Bachman's Sparrows are not clear. There are no parallels between either the times or the areas of their disappearance. That of the Bewick's Wren has almost coincided with the expansion of the range of the House Wren. This suggests that the latter has driven out its relative, but no other connection has been found between the two, and both Herndon (1956) and Laskey (1966) observed that when both species were present in the same area the House Wrens were confined to residential areas and Bewick's Wrens were in the country.

Counting only those species that were not introduced by man, there are twenty-two that have increased their ranges in Tennessee and only nine that have diminished. The numbers are probably slightly biased because observers are much more aware of the appearance of a species in a new area than they are of a disappearance, but it is clear that expansions outnumber decreases. Is there any significance to this? Herons, geese, Ospreys, and Bald Eagles have spread because of new man-made reservoirs and in part because of a growing sentiment for bird

protection. Natural causes for the expansion of any of these species are unknown and are probably diverse.

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#### LITERATURE CITED

- ALSO, F. J., III. 1981. The Cliff Swallow (*Petrochelidon pyrrhonota*) in Tennessee. *Migrant* 52:1-11.
- AMERICAN ORNITHOLOGISTS' UNION. 1983. Check-list of North American Birds, sixth edition. Lawrence, Kansas, Amer. Ornithol. Union.
- CALHOUN, J. B. 1941. Notes on the summer birds of Hardeman and McNairy Counties. *J. Tn. Acad. Sci.* 16:293-309.
- CHAPMAN, F. M. 1932. Handbook of birds of eastern North America. D. Appleton & Co.
- COFFEY, B. B., JR. 1938. Blackbird banding in the mid-South—I. *Migrant* 9:59-63.
- . 1955. Notes of the Blue Grosbeak in the mid-South. *Migrant* 26:41-42.
- . 1985. First state records and nesting of Black-necked Stilts at Memphis, Tennessee. *Migrant* 56:1-3.
- DEADERICK, W. H. 1899. A partial list of the birds of Montgomery County, Tennessee. Duplicated.
- FORD, R. P. 1987. Summary of recent Brown Creeper observations in West Tennessee. *Migrant* 58:50-51.
- FOX, W. H. 1882. Stray notes from Lookout Mountain, Tennessee. *Bull. Nuttall Ornith. Club*, 1882, p. 191-192.
- . 1886. List of birds found in Roane County, Tennessee, during April 1884, and March and April 1885. *Auk* 3:315-319.
- GANIER, A. F. 1917. Preliminary list of the birds of Tennessee. Tn. Dept. Game and Fish, Nashville.
- . 1921. Cowbird lays in Prothonotary Warbler's nest. *Wilson Bull.* 28:146.
- . 1922. Breeding of Barn Swallows in Tennessee. *Wilson Bull.* 34:181-185.
- . 1923. Notes from the Tennessee Cumberlands. *Wilson Bull.* 30:26-34.
- . 1924. Starlings abundant at Nashville, Tennessee. *Wilson Bull.* 36:31-32.
- . 1925. The Starling breeding in Tennessee, North Carolina, and Virginia. *Wilson Bull.* 37:174-175.
- . 1928. The European Starling nesting at Nashville, Tennessee. *Wilson Bull.* 40:198.
- . 1933a. A distributional list of the birds of Tennessee. Tennessee Avifauna No. 1. Tn. Ornith. Soc., Nashville.
- . 1933b. Water birds of Reelfoot Lake, Tennessee. Tennessee Avifauna No. 2. Tn. Ornith. Soc., Nashville.
- . 1951. The breeding herons of Tennessee. *Migrant* 22:1-8.
- . 1974. The wildlife met by Tennessee's first settlers. Tennessee Avifauna No. 3. Tn. Ornith. Soc., Nashville.
- , AND S. A. WEAKLEY. 1936. Nesting of the Cliff Swallow in Tennessee. *Migrant* 7:29-30.
- GEISBACHER, EVA. 1939. The heronries at Reelfoot Lake. *J. Tn. Acad. Sci.* 14:162-180.
- . 1964. Heronries at Reelfoot Lake—25 years later. *J. Tn. Acad. Sci.* 39:15-16.
- GOODPASTURE, K. A. 1968. Summer occurrence of Blue Grosbeaks in Middle Tennessee. *Migrant* 39:1-3.
- HANEY, J. C. 1981. The distribution and life history of the Brown-headed Nuthatch (*Sitta pusilla*) in Tennessee. *Migrant* 52:77-86.
- HERNDON, L. R. 1956. The House Wren in Tennessee. *Migrant* 27:23-30.
- . 1979. Evening Grosbeaks banded in 1978. *Migrant* 50:27-28.
- HICKEY, J. J., AND D. W. ANDERSON. 1968. Chlorinated hydrocarbons and egg shell changes in raptorial and fish-eating birds. *Science* 162:271-273.



- HOWELL, A. H. 1910. Notes on the summer birds of Kentucky and Tennessee. *Auk* 27: 295-304.
- HOWELL, J. C., AND M. B. MONROE. 1957. The birds of Knox County, Tennessee. *J. Tn. Acad. Sci.* 32:247-324.
- KORTRIGHT, F. H. 1943. The ducks, geese and swans of North America. Amer. Wildl. Inst., Washington.
- LANGDON, F. W. 1887. August birds of the Chilhowee Mountains, Tennessee. *Auk* 4:125-133.
- LASKEY, A. R. 1966. The status of Bewick's Wren and House Wren in Nashville. *Migrant* 37:4-6.
- LEWIS, J. C. 1962. The status of Wild Turkeys in Tennessee. *Migrant* 33:61-62.
- MAYFIELD, HAROLD. 1965. The Brown-headed Cowbird, with old and new hosts. *Living Bird* 4:13-28.
- MC EVEN, J. A., JR. 1894. A few field notes. *Oologist* 11:223.
- MCKINLEY, DANIEL. 1979. A review of the Carolina Parakeet in Tennessee. *Migrant* 50: 1-6.
- MENGEL, R. M. 1965. The birds of Kentucky. *Am. Ornith. Union Monogr.* No. 3.
- NICHOLSON, C. P. 1976. The Bachman's Sparrow in Tennessee. *Migrant* 47:53-60.
- . 1986. Alexander Wilson's travels in Tennessee. *Migrant* 57:1-7.
- , AND T. D. PITTS. 1982. Nesting of the Tree Swallow in Tennessee. *Migrant* 53: 73-80.
- PINDAR, L. O. 1886. The breeding of *Branta canadensis* at Reelfoot Lake, Tennessee. *Auk* 3:481.
- . 1925. Birds of Fulton County, Kentucky. *Wilson Bull.* 37:77-88, 163-169.
- PITTS, T. D. 1973. Tennessee heron and egret colonies: 1972. *Migrant* 44:89-93.
- . 1977. Tennessee heron and egret colonies: 1973-1975. *Migrant* 48:25-29.
- . 1982. Establishment of a new heron and egret colony at Reelfoot Lake, Tennessee. *Migrant* 53:63-64.
- . 1985. The breeding birds of Reelfoot Lake, Tennessee. *Migrant* 56:29-41.
- PULLIN, B. P. 1980-1988. Survey of wading bird colonies in the Tennessee Valley Region. Unpublished reports of the Wildlife Resources Development Program, Tn. Valley Authority, Norris.
- RHOADS, S. N. 1895. Contributions to the zoology of Tennessee, No. 2, Birds. *Proc. Acad. Sci. Philadelphia*, 1895:463-501.
- SCHORGER, A. W. 1955. The Passenger Pigeon. Univ. Oklahoma Press, Norman.
- SCHULTZ, VINCENT. 1955. Status of the Wild Turkey in Tennessee. *Migrant* 26:1-8.
- SIMPSON, M. 1987. The "fish hawk" returns to Tennessee. *Tn. Wildlife* 11(3):17-20.
- SPOFFORD, W. R. 1942. Nesting of the Peregrine Falcon in Tennessee. *Migrant* 13:29-31.
- . 1943. Peregrines in a West Tennessee swamp. *Migrant* 14:25-27.
- STUPKA, ARTHUR. 1963. Notes on the birds of Great Smoky Mountains National Park. Univ. Tn. Press, Knoxville.
- TANNER, J. T. 1985. An analysis of Christmas Bird Counts in Tennessee. *Migrant* 56: 85-97.
- . 1986. An analysis of Spring Bird Counts in Tennessee. *Migrant* 57:89-97.
- TELFAIR, R. C., III. 1983. The Cattle Egret. *Texas Agri. Exp. Stat.*
- TORREY, BRADFORD. 1896. Spring notes from Tennessee. Houghton, Mifflin & Co.
- TRENHOLM, L. 1926. The Starling in Tennessee. *Bird-Lore* 28:334.
- WAKE, W. W. 1895. Notes on the nesting of the Duck Hawk. *The Museum* 1:69-70.
- WALDRON, MARTHA. 1987. Seasonal occurrences of Shelby County, Tennessee, birds, 2nd printing. Memphis Chapt., Tn. Ornith. Soc., Memphis.
- WETMORE, ALEXANDER. 1939. Notes on the birds of Tennessee. *Proc. U.S. Nat. Mus.* 86: 175-243.
- WHITTEMORE, W. L. 1937. Summer birds of Reelfoot Lake. *J. Tn. Acad. Sci.* 12:114-128.

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## AUTUMN HAWK COUNTS—1987

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In 1987 hawkwatchers spent 286.8 hours at lookouts in Tennessee; the total count was only 4,766 hawks of 13 species for an average of 16.6 hawks per hour (Table 1). The 1987 count was far below the 1986 total of 11,161 hawks (42.0 per hour). Watchers used nine sites in 1987; eight of these sites were used in earlier years. The new site was Cookeville Fire Tower at an elevation of 335 m in Putnam County on the Cumberland Plateau; observers spent 64 hours on 33 days at this site. Other site totals are given in Table 2.

The surprise of the season was 208 Mississippi Kites (*Ictinia mississippiensis*) counted by Barbara Stedman on 22 August on Island 13, six miles south of Tiptonville, on the Mississippi River. She saw 116 kites between 0800-0900 as they came out of the trees lining the river and headed SSW down the river. This is the first major migration of kites reported from Tennessee.

The total of 4,067 Broad-winged Hawks (*Buteo platypterus*) counted this year was only 40% of last year's total of 10,195. The average number of Broad-wings reported per hour of observation in 1987 (14.2) was far below the average of 38.4 per hour seen in 1986. Most Broad-wings were seen between 18-26 September. Tom Patton reported 502 from Signal Point on 18 September. Observers from six sites reported a total of 693 on 20 September. Jim Peters counted 636 at Sewanee Cross on 26 September; this was the highest daily count of the season. Johnnie Sue Lyons counted 114 from Signal Point on 30 September. Few Broad-wings were reported after this date.

Eighty-eight Red-tailed Hawks (*Buteo jamaicensis*) were reported this year for an average of 0.31 per hour. This is slightly below the 1986 total of 101 (0.38 per hour). The highest daily counts in 1987 were from Signal Point where Tom Patton observed 10 on 18 September and Ken Dubke tallied 22 on 4 October. Eleven Red-shouldered Hawks (*Buteo lineatus*) were reported; this is down from the 1986 count of 23. The 1987 reports were scattered throughout the season.

A total of 162 accipiters (0.56 per hour) was counted this year; 89 were Sharp-shinned Hawks (*Accipiter striatus*) (0.31 per hour), 38 were Cooper's Hawks (*Accipiter cooperii*) (0.13 per hour), and 35 were unidentified accipiters (0.12 per hour). Although down from last year's record count of 307 accipiters (1.16 per hour), the 1987 total equals the average of the last several years. Almost half of the total number was counted on two days; a total of 23 accipiters was reported from six sites on 20 September and a total of 21 was reported from four sites on 26 September. The remainder of the reports was distributed throughout the season. No site reported more than 12 accipiters in a single day.

The total of 11 Northern Harriers (*Circus cyaneus*) (0.04 per hour) reported this year was slightly below the average of 15 per year (0.05 per hour) reported since 1980. Twenty-three Ospreys (*Pandion haliaetus*) (0.08 per hour) were counted; this is down from last year's count of 29 (0.11 per hour) but is up slightly from the average of the previous five years (0.06 per hour). Over half of the total number of Ospreys was reported from Look Rock, which had a daily high count of 5 on 20 September. No eagles were reported this year.

The total of 24 American Kestrels (*Falco sparverius*) (0.08 per hour) reported this year was down from last year's total of 40 (0.15 per hour) but was slightly higher than the average since 1980 of 17 per year (0.07 per hour). Audrey Hoff

TABLE 1. Autumn hawk counts—1987.

Date	Location	Reporter (# Obs.)	Hours	TV	BV	SS	CH	UA	RT	RS	BW	UB	NH	OS	AK	Other	Total
8/22	Island 13	B. Stedman (1)	2.5	—	—	—	—	—	—	—	12	—	—	—	—	208MK	220
9/14	Sewanee Cr.	J. Peters (1)	2.0	—	—	2	1	3	—	—	14	—	1	—	—	—	21
9/15	Cookeville	B. Stedman (1)	1.5	—	—	1	—	—	1	—	15	—	—	—	—	—	17
9/15	Look Rock	R. Clark (1)	4.0	—	—	—	—	—	—	—	30	—	—	1	—	1u	32
9/15	Sewanee Cr.	J. Peters (1)	1.0	—	—	1	—	—	—	—	9	—	—	1	—	—	11
9/16	Look Rock	B. Stedman (3)	5.75	—	3	2	—	1	—	1	61	—	—	—	—	—	68
9/17	Look Rock	B. Stedman (3)	5.5	—	—	1	1	—	—	1	75	—	—	1	1	1PF	81
9/17	Sewanee Cr.	J. Peters (1)	1.25	—	—	2	—	—	—	—	7	—	—	—	—	—	9
9/18	Look Rock	B. Stedman (1)	5.0	—	—	1	1	—	—	1	60	—	—	1	2	—	66
9/18	Sewanee Cr.	J. Peters (1)	2.0	—	—	1	—	2	—	—	90	—	—	—	1	—	94
9/18	Signal Pt.	T. Patton (1)	4.75	8	4	6	—	—	10	—	502	—	2	—	1	—	533
9/19	Audubon Mtn.	L. Dubke (8)	7.5	23	—	1	—	—	1	1	242	—	—	—	1	5PF	274
9/19	Signal Pt.	K. Dubke (1)	8.25	—	3	1	—	—	3	—	297	—	1	—	—	—	305
9/20	Cookeville	S. Stedman (1)	4.0	—	5	1	—	—	—	—	22	1	—	1	—	—	30
9/20	Look Rock	A. Hoff (9)	8.5	—	—	5	—	1	—	—	316	7	1	5	1	2f, 1u	339
9/20	Ooltewah	L. Dubke (7)	6.5	5	1	—	1	1	6	1	33	1	—	—	—	—	49
9/20	Sewanee Cr.	J. Peters (3)	8.0	—	10	1	1	—	1	1	111	—	—	2	1	—	128
9/20	Signal Pt.	K. Dubke (3)	8.0	—	—	4	2	1	4	1	6	—	—	—	—	1f	19
9/20	Thorn Hill	Satterfield (2)	4.75	—	—	3	1	1	6	—	205	3	—	—	—	1f	220
9/21	Cookeville	B. Stedman (1)	2.0	—	—	—	1	—	—	—	29	—	—	1	—	—	31
9/21	Look Rock	D. Powers (3)	8.0	—	—	4	1	2	—	—	181	—	1	—	2	—	191
9/21	Sewanee Cr.	J. Peters (1)	1.5	—	3	—	—	2	—	—	52	—	—	—	—	—	57
9/21	Signal Pt.	J. Lyons (1)	3.75	—	—	—	—	—	8	—	33	—	—	—	—	—	41
9/21	Thorn Hill	P. Hartigan (1)	3.5	4	1	4	—	1	—	—	150	1	—	—	—	—	161
9/22	Cookeville	B. Stedman (1)	1.5	—	—	—	—	—	—	—	11	—	—	1	—	—	12
9/22	Look Rock	R. Clark (1)	3.0	—	—	2	—	—	—	—	136	—	—	1	—	1f	140
9/22	Raccoon Mt.	R. Doyle (1)	5.25	—	—	—	—	—	—	—	182	—	—	—	—	—	182
9/22	Sewanee Cr.	J. Peters (1)	2.5	—	—	1	—	1	—	—	13	—	—	—	1	—	16

TABLE I. Continued.

Date	Location	Reporter (# Obs.)	Hours	TV	BV	SS	CH	UA	RT	RS	BW	UB	NH	OS	AK	Other	Total
9/22	Signal Pt.	J. Lyons (1)	1.75	—	—	—	—	—	1	—	5	—	—	—	—	—	6
9/23	Cookeville	B. Stedman (1)	3.25	—	—	2	—	—	—	—	37	1	—	—	—	—	40
9/23	Sewanee Cr.	J. Peters (1)	2.5	—	—	—	—	—	—	—	11	—	—	1	—	—	12
9/23	Signal Pt.	J. Lyons (2)	4.75	—	—	—	—	—	—	—	3	—	—	—	—	—	3
9/24	Sewanee Cr.	J. Peters (1)	1.75	—	—	—	—	—	—	—	38	—	—	—	—	—	38
9/24	Signal Pt.	J. Lyons (1)	2.5	—	—	—	1	—	—	—	9	—	—	—	—	—	10
9/25	Cookeville	B. Stedman (1)	4.5	—	—	5	—	1	—	—	15	—	—	—	—	1u	22
9/25	Sewanee Cr.	J. Peters (1)	1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	0
9/26	Cookeville	S. Stedman (2)	5.25	—	—	2	2	1	—	—	11	—	—	—	—	—	16
9/26	Look Rock	A. Hoff (5)	6.5	—	—	9	1	2	2	—	93	—	1	3	6	3u	120
9/26	Sewanee Cr.	J. Peters (1)	4.0	—	—	—	—	3	—	—	636	—	—	—	—	—	639
9/26	Signal Pt.	K. Dubke (1)	8.0	—	—	1	—	—	—	—	—	—	—	—	1	—	2
9/27	Sewanee Cr.	J. Peters (2)	4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	0
9/27	Signal Pt.	K. Dubke (1)	8.0	—	—	2	1	—	7	—	92	—	1	—	—	—	103
9/28	Cookeville	B. Stedman (1)	3.0	—	—	—	—	—	—	1	29	—	1	—	—	—	31
9/28	Signal Pt.	T. Patton (1)	0.25	—	—	—	—	—	—	—	6	—	—	—	—	—	6
9/30	Cookeville	B. Stedman (1)	2.25	—	—	3	4	—	—	—	12	2	—	—	—	—	21
9/30	Signal Pt.	J. Lyons (1)	5.25	—	—	—	—	3	3	—	114	—	—	—	—	—	120
10/3	Look Rock	A. Hoff (5)	5.25	2	5	6	1	—	—	2	4	2	—	2	1	1PF, 1f. 3u	30
10/3	Signal Pt.	K. Dubke (1)	8.0	—	—	1	1	—	5	—	4	—	—	—	—	—	11
10/4	Signal Pt.	K. Dubke (1)	7.0	—	—	1	—	—	22	—	—	—	—	—	4	—	27
10/14	Cookeville	B. Stedman (1)	1.5	17	3	1	—	1	—	—	—	—	—	—	—	2u	24
36 Days	Others <sup>1</sup>		74.8	8	7	11	17	8	8	1	51	11	2	2	1	1PF, 1M, 5u	134
Total			286.8	67	45	89	38	35	88	11	4,067	29	11	23	24	239	4,766

<sup>1</sup> Includes sites with single day coverage and/or low total numbers of raptors.

Key to species abbreviations in tables: TV—Turkey Vulture; BV—Black Vulture; SS—Sharp-shinned Hawk; CH—Cooper's Hawk; UA—unidentified accipiter; RT—Red-tailed Hawk; RS—Red-shouldered Hawk; BW—Broad-winged Hawk; UB—unidentified buteo; NH—Northern Harrier; OS—Osprey; AK—American Kestrel; MK—Mississippi Kite; u—unidentified raptor; PF—Peregrine Falcon; f—unidentified falcon; M—Merlin.

TABLE 2. 1987 site totals.

Location	Days	Hours	TV	BV	SS	CH	UA	RT	RS	BW	UB	NH	OS	AK	Other	Total	Total hawks per hour
Cookeville	33	64.0	17	15	22	18	6	4	2	191	10	2	4		1PF, 8u, 1M	301	4.7
Look Rock	15	69.25	2	8	33	7	11	3	5	974	14	4	14	14	2PF, 4f, 8u	1,103	15.9
Sewanee Cross	12	31.5		13	8	2	11	1	1	981		1	4	3		1,025	32.5
Signal Pt.	16	76.5	8	7	18	7	4	64	1	1,083		4		6	1f	1,203	15.7

counted 6 at Look Rock on 26 September; this was the highest daily count in 1987, but it was down from the record of 13 Kestrels reported from Look Rock last year on 5 October. The 8 Peregrine Falcons (*Falco peregrinus*) counted this year equalled last year's count, but with one surprise; Lil Dubke reported five Peregrines traveling together on 19 September at Audubon Mt. The only Merlin (*Falco columbarius*) reported this year was seen by Barbara Stedman on 24 September at Cookeville Fire Tower.

Sixty-seven migrating Turkey Vultures (*Cathartes aura*) were counted with the highest numbers reported by Lil Dubke on 19 September (23) at Audubon Mt. and by Barbara Stedman on 14 October (17) at Cookeville Fire Tower. Forty-five migrating Black Vultures (*Coragyps atratus*) were reported with a high of 10 seen by Jim Peters on 20 September at Sewanee Cross.

*Corrigenda:* Migrant 58:33, 1987: par. 2, change "James A. Peters" to "James R. Peters"; par. 4, change "10,196" to "10,195"; 58:36: par. 2, change "9 October" to "9 November"; 58:38: par. 2, add "S. Stedman" as observer at Flagpole Fire Tower.

Accepted 17 August 1988.

## ROUND TABLE NOTE

*The Migrant*, 59(3):92, 1988

**BANDED AMERICAN KESTREL RECOVERED AT SEWANEE, TENNESSEE**—On 26 January 1987, Mr. Steve Cardwell of Sewanee, Franklin County, Tennessee, informed me by telephone that a small hawk was near his home on Rabbit Run Road, and that the hawk could not fly well. I joined him and after a short chase, we caught it in a brushpile. It was a small male American Kestrel (*Falco sparverius*) and bore a USFWS band (1493-05018) on its right tarso-metatarsus. It appeared to be in a starved condition but was apparently uninjured, unless bruised by a car. I took it home and fed it meat from salvaged dead birds and a poacher-killed deer furnished by the local wildlife officer. When I approached the kestrel with meat, it gave a cry of anticipation like that of a young bird. By 1 February it appeared to be in excellent health, and the weather was favorable for release. After feeding it, my wife and I took it into nearby Roarks's Cove to a field, where we freed it. It flew beautifully, even hovering over a distant field, perhaps searching for live prey.

On 20 April 1987, the Fish and Wildlife Service answered my request for information on this kestrel and reported that it had been banded by Mr. Sergej Postupalsky of the University of Wisconsin, Dept. of Wildlife Ecology, as a nestling on 19 June 1986. He informed me that the kestrel was banded about 9 miles southeast of Atlanta, Montmorency County, Michigan, and was one of five (4 males, 1 female) nestlings banded in a nest box.

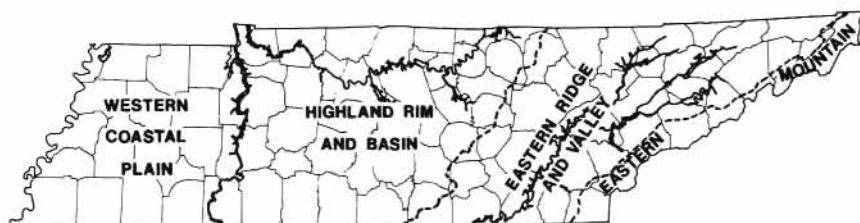
Mr. Postupalsky had banded an Osprey (*Pandion haliaetus*) that I had secured at Sewanee on 11 April 1968 (*Migrant* 40:63, 1969). He stated that prior to this kestrel recovery, three of his banded Bald Eagles (*Haliaeetus leucocephalus*), two Ospreys, and one Sharp-shinned Hawk (*Accipiter striatus*) had been recovered in Tennessee. He was happy that, "for once this band recovery report [of the kestrel] did not mean that yet another of my banded birds was dead."

DR. HARRY C. YEATMAN, University of the South, Sewanee, TN 37375.

Accepted 15 February 1988.

## THE SEASON

JOHN C. ROBINSON, Editor



### SPRING: 1 MARCH-31 MAY 1988

The general lack of rainfall became an increasingly important issue this spring. Although rainfall in Memphis was reportedly near normal, significant rainfall deficits were reported from most locations elsewhere in the state. At Nashville, the third driest January-May period ever was recorded. Bird species for which water is a limiting habitat factor will undoubtedly be affected by this drought. The relatively dry conditions have already impacted the management of natural and artificial wetlands, including the managed reservoirs on the Tennessee and Cumberland Rivers.

Observers are requested to submit records of their bird sightings to the appropriate regional compiler by the 12th day following the end of each reporting season. The county in which each bird sighting was made should be specified for ALL records. When more than one individual of a species is observed in a multi-county area, the exact number of birds found in *each* county should, when possible, always be provided to the regional compiler.

Ornithologically, I considered this spring to be one of the more exciting spring seasons Tennessee has had in some time. Many early arrival and late departure dates were set for a number of common migrant species. In addition, numerous rare and very rare birds were found. Franklin's Gulls were reported from west, middle and east Tennessee. The first adequately documented Wilson's Plover in Tennessee was found in mid-April, and the second state record of a Common Black-headed Gull occurred in early May. Caspian and Forster's Terns arrived earlier than usual, and the first Eastern Mountain Region Tricolored Heron was discovered in Carter Co. Alder Flycatchers were reported from middle and west Tennessee. A Northern Saw-whet Owl nest record from Claiborne Co. was apparently the first positive breeding evidence ever recorded in Tennessee for this species. Other significant sightings made this spring are too numerous to mention here. But read on—the following text contains many important records!

As a printing aid, the following abbreviations are used in the text: ad—adult; EOP—end of period; ers—earliest reported sighting; im—immature; in.—inch; lrs—latest reported sighting; max—maximum 1-day count during period; m. ob.—many observers; NWR—National Wildlife Refuge; ph—photographs; SBC—Spring Bird Count; S.P.—State Park; yg—young; \*—documented record; \*\*—specimen record.

WESTERN COASTAL PLAIN REGION—The spring season produced early

sightings particularly among wading birds. Gulls were observed in greater numbers than in previous years. Passerine migration occurred in a timely manner, and flycatcher species were well represented. Of particular interest are the 4 Bald Eagle nests with 7 young. Three nests are in the Reelfoot area and 1 is in Benton County. A Northern Saw-whet Owl was treated and released. Climatic conditions were not unusual with temperatures and rainfall within average ranges.

*Loon-Falcon*: Common Loon: 17 Mar/29 May (10/1) PLS (JCR), max/lrs. Pied-billed Grebe: 1 May (1 pair) REL (RPF). Horned Grebe: 17 Mar (83) PLS, max, and 2 Apr (1) PLS (JCR). American Bittern: 13 Apr (1) S of Savannah, Diamond Is. Rd., HDC (DJS); 19, 22 May (1) ESL (JRW). Great Blue Heron: 21 May (8) Lower HNWR (MLB, et al.). Great Egret: 27 Mar (1) TN 57, Hardeman Co. (William B. Fowler); 21 May (12) Lower HNWR (MLB, et al.). Snowy Egret: 21 May (1) Lower HNWR (MLB, et al.). Cattle Egret: 24 Apr (77) Fort Pillow Prison Farm, LDC, the only flock reported this season in region (BBC, LCC). Black-crowned Night-Heron: 6 Mar (1) MEM (CHB, JRW), ers; 7 Mar (1) MLK (CHB, DPB, MGW); 8 Mar (1) ESL (DAD, JRW); 10 Mar (1 ad, 1 im) MEM (BBC, LCC); 20 Mar (2) MLK (CHB, DPB, MGW). Yellow-crowned Night-Heron: 7 Mar (1) MEM (James E. Waldron), ers; 17 Apr-EOP (10) ESL (CHB, VBR, MGW); 29 May (4 ad) 3.2 km S of Bells, HYC (JCR). Ruddy Duck: (present through EOP) Robco Lake, SBC (BBC, LCC, JRW). Osprey: 3 Apr (1) SFP (Mike Hughes). Mississippi Kite: 8 May (1 kettle of 84) SFP (JRW) and (5) MEM (MTOS); 11 May (19) President's Island, SBC (Jo L. Levy, Dwight Miller) and (1 nest, 2 yg) MEM (MGW). Bald Eagle: Spring 1988 (3 nests, 7 yg) REL (Bob Hatcher); it is not known at this time whether any of the ad birds are the result of the hacking program started in 1980; 19 Apr (2 ad, 1 yg) Eagle Creek, Tennessee NWR, Benton Co.—this is the third time this site has produced an eaglet (Ed Britton, Jerry Armstrong, U.S. Fish and Wildlife Service). Peregrine Falcon: 26 Apr (1 female) ESL (JRW).

*Sora-Tern*: Sora: 7 May (3) ESL (JRW, et al.). Black-bellied Plover: 7, 8 May (2, 1) ESL (JRW, DAD); 21 May (1) Lower HNWR (MLB, et al.). Lesser Golden-Plover: 12, 13 Mar (175, 65) PEF (GRP, MGW); 13 Mar (50) ESL (JRW); 16, 23 Mar (32, 45) PEF (Sue C. Ferguson, Noreen M. Smith, Barbara Wilson, VBR, HBD). WILSON'S PLOVER: 17 Apr (1) ESL (•MGW, VBR, Mike Hughes); first acceptably documented state record—accepted by State Certification Committee in May 1988. Semipalmated Plover: 5, 27 May (8, 2) ESL (CHB, VBR, MGW). Black-necked Stilt: 8 Apr-EOP (4) ESL (CHB, VBR, MGW), nesting attempts failed. Greater Yellowlegs: 2-13 Apr (up to 16) ESL (CHB, VBR, MGW). Lesser Yellowlegs: 2 Apr-22 May (up to 52) ESL (CHB, VBR, MGW). Solitary Sandpiper: 2 Apr-10 May (up to 27) ESL (CHB, VBR, MGW). Spotted Sandpiper: 2 Apr-EOP (up to 13) ESL (CHB, VBR, MGW); 21 May (2) HNWR (MLB, et al.). Upland Sandpiper: 9 Apr (5) PEF (MTOS). Semipalmated Sandpiper: 17 Apr-27 May (up to 416) ESL (CHB, VBR, MGW), max. Western Sandpiper: 17 Apr (1) ESL (CHB, VBR, MGW), ers. White-rumped Sandpiper: 14, 22, 27 May (5) ESL (VBR, MGW); 28-30 May (24-6) ESL (JRW). Baird's Sandpiper: 21, 24 Apr (1) ESL, ers, and 5-20 May (1) ESL (JRW). Pectoral Sandpiper: 2 Apr-EOP (up to 826) ESL (CHB, VBR, MGW). Stilt Sandpiper: 13 Apr-14 May (4) ESL (VBR, MGW). Wilson's Phalarope: 28 May (1 female) ESL (JRW). McKellar Lake in MLK hosted a large concentration of gulls. The lake is located in the western part of SBC and empties by way of a channel into the Mississippi River. The following gull records were from this area. Ring-billed Gull: 5 Mar (2,700) (JRW); 19 Mar (1,200) (Murray Gardler); 20 Mar (1,500) (CHB, DPB, MGW). FRANKLIN'S



GULL: 5 Mar (3) (JRW); 19 Mar (6) (Murray Gardler); 20 Mar (3) (CHB, DPB, MGW); 10, 19 Apr (1) (JRW). Bonaparte's Gull: 5 Mar (250) (JRW); 19 Mar (600) (Murray Gardler); 20 Mar (1,000) (CHB, DPB, MGW); 19 Apr (75) (JRW). Least Tern: 21 May (50) Lower HNWR (MLB, et al.).

*Owl-Bobolink:* Northern Saw-whet Owl: 18–22 Mar (1) MEM, taken to Memphis Zoo for observation, released in Ohio in May (fide MGW). Olive-sided Flycatcher: 10 May (1) ESL (JRW, CHB, VBR). ALDER FLYCATCHER: 19 May (1) ESL (JRW), rarely reported in region. Willow Flycatcher: 19, 21, 28 May (1, 2, 2) ESL (JRW); 29 May (1) Beaverdam Creek, HNC (JCR). Least Flycatcher: 10 May (1) ESL (JRW, CHB, VBR); 16, 17, 27 May (1) MEM (CHB). Scissor-tailed Flycatcher: 30 May (1) S-SE of Eastview, W of Hwy 45, MNC (CPN). Brown Creeper: 29 Apr (3–4) Cranetown at REL, LKC (RPF). Warbling Vireo: fairly common locally with a max. of 19 on Mud Island and 10 at ESL and Robco Lake; singles were noted at REL, FPP and NE Decatur Co. (BBC, LCC). Philadelphia Vireo: 17 Apr (1) ESL (JRW, DAD); 7 May (1) Overton Park, SBC (Richard Whittington). Cape May Warbler: 8 May (2) ESL (JRW, DAD). Cerulean Warbler: 24 Apr (1) FPP (BBC, LCC); 8 May (9) SFP (MTOS); 18 May (1) SFP (HBD, CHB). Prothonotary Warbler: 30 Mar (1) Lake Lipscomb, DeSoto Co. MS (James Ewart); 3 Apr (1) Wolf River, NW of Moscow, Fayette Co. (BBC, LCC). Swainson's Warbler: 24 Apr (1) FPP (BBC, LCC); 4 May (5) HNWR (HBD, et al.); 8 May (11) SFP (MTOS); 21 May (2) Powell Rd., HNWR (MLB, et al.). Northern Waterthrush: 11 May (1) REL (HBD, et al.). Mourning Warbler: 7 May (1 male) MEM (CHB); 10 May (1 male) Coffey Grounds, MEM (LCC). Dickcissel: 21 Mar (1) MEM (Susan McWhirter, MGW). Bachman's Sparrow: 25 Mar–EOP (3) 3.2 km S of Burnt Church community, HDC; 13 Apr (11 ad, 2 yg) Bruton Branch Recreation Area, HDC—this is the same location as reported in 1987 (DJS); 7 May (1) 4.8 km SE of Silerton, CST and (1) 1.1 km SW of Cave Springs Church and 6.4 km E-SE of Silerton, CST (BBC, LCC). Lark Sparrow: 28 May (1) 3.2 km S of Burnt Church community, HDC (DJS); 30 May (1) at 2 different locations about 1.6 km apart E of Hwy 45, MNC (CPN). Grasshopper Sparrow: 1, 2 Apr (3, 1) ESL (Mike Hughes), ers; 21 May (2) Lower HNWR (MLB, et al.); 29 May (1) near Beaverdam Creek, HNC (JCR). Lincoln's Sparrow: 28 May (1) ESL (JRW), Irs. White-crowned Sparrow: 1 Apr (32) ESL (VBR). Bobolink: 31 May (1 male) Kiwanis Lake, Tiptonville, LKC (CPN), Irs.

*Locations:* CST—Chester Co.; ESL—Ensley sewage lagoons, Shelby Co.; FPP—Fort Pillow S.P., Lauderdale Co.; HDC—Hardin Co.; HNC—Henry Co.; HNWR—Hatchie National Wildlife Refuge, Haywood Co.; HYC—Haywood Co.; LDC—Lauderdale Co.; LKC—Lake Co.; Lower HNWR—Lower Hatchie National Wildlife Refuge, Lauderdale Co.; MCN—McNairy Co.; MEM—Memphis, Shelby Co.; MLK—Martin Luther King (Riverside) Park, Shelby Co.; PEF—Penal Farm, Shelby Co.; PLS—Paris Landing S.P., Henry Co.; REL—Reelfoot Lake; SBC—Shelby Co.; SFP—Shelby Forest S.P., Shelby Co.

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HIGHLAND RIM AND BASIN REGION—Dry conditions dominated the weather in the region for the fourth consecutive spring. Rainfall totals in Nashville for March, April and May were 1.75, 2.09 and 1.86 in., respectively, resulting in a seasonal rainfall deficit of 8.31 in. Monthly totals at Cross Creeks NWR were 3.42, 1.21 and 1.90 in. May was hotter than normal, while March and April temperatures varied quite a bit, but were about normal overall.

A small loon on Percy Priest Lake in March would normally have received most of the attention in a synopsis of regional rarities. However, the TOS Certification Committee did not confirm this sighting, so it must await future discussion. Plenty of rare birds did occur in middle Tennessee this spring despite poor weather conditions, among them an Eared Grebe, a Glossy Ibis, several Common Moorhens, an early Franklin's Gull, several Alder Flycatchers, many Bewick's Wrens, some well-described Connecticut and Mourning Warblers, and Bachman's, Lark and Sharp-tailed Sparrows. The region's first well-documented Western Meadowlark was recorded, though reports of this species have surfaced in the past. Also new to the region was a Painted Bunting in Lawrence County. Surely a remarkable sight must have been the small flock of three scoter species observed on Cheatham Lake in late April. Details on all of the above species were provided by the observers. Quite a few early and late dates of arrival and departure were set this spring, and some impressive maximum data were submitted. All in all, it was a good season in spite of dry conditions.

This report represents quite a condensation of the total number of records submitted. Probably fewer than 20% of all records received are noted below. This fact should not, however, discourage regional observers from sending in data, since this information helps the compiler convey the "big picture" and since unpublished records have archival value and may be useful in future research conducted on the birds of the region. Therefore, observers are encouraged to submit as many records as possible each season. A recommended minimal goal might be for each observer to submit 25 records per season, preferably on green cards (available free from Robert M. Hatcher, TWRA, Box 40747, Nashville, TN 37204). Many thanks to those noted below, as well as to those who submitted data which do not appear below.

*Loon-Ibis:* Common Loon: 6 Mar (40) PPL (county?) (CGD), max; 11 May (1) CCNWR (JCR, DWB), lrs. Pied-billed Grebe: 2 Apr/13 May (16/2) PUC (SJS), max/lrs. Horned Grebe: 18 Apr (3) PUC (SJS), lrs. EARED GREBE: 12 Mar (1) PPL, DVC (+RLK), 6th NA record, following 2 last fall. Double-crested Cormorant: 7-8 May (36) WLC on Lebanon SBC (fide RVM), max. American Bittern: 7 reports 17 Apr-19 May in CHC, LWC, SUC and SWC; more than the usual number. Least Bittern: 1-19 May (up to 3) BCWMA (DWB, JCR). Great Egret: 8 reports 25 Mar-EOP in DVC, PUC, SUC, SWC; about normal. SNOWY EGRET: 29 Mar (1, ph) PUC (SJS), ers and earliest ever in state; 4 May (1) MC (TJW), only other report. Little Blue Heron: 6 reports 17 Apr-27 May in LWC, SUC, SWC. Cattle Egret: 5 May (3) DIC (DWB); 21 May (15) LWC (CAS); only reports. Green-backed Heron: 26 Mar (1) RDL (MHI), ers. Yellow-crowned Night-Heron: 19 May (10 ad) BCWMA (JCR), max. GLOSSY IBIS: 10-11 May (1 ad) BAR (DWB, +JCR), first verified SWC record and one of very few well-documented in state.

*Swan-Duck:* Tundra Swan: 12 Mar (1 im) Arrow Lake, MUC (O. Bedford Lochridge); only report. Greater White-fronted Goose: 3/6 Mar (2) CCNWR (JCR/DWB), only reports. Green-winged Teal: 20 Apr (pair) BAR (DWB), lrs. American Black Duck: 30 Apr-22 May (1) Lewis Pond, SUC (JPC, DTC), lrs. Blue-winged Teal: 31 May (1) SUC (DTC, JPC), lrs (breeding evidence seen?). Northern Shoveler: 4 May (6) PUC (SJS), lrs. American Wigeon: 11 May (1) BAR (DWB), lrs. Redhead: 17 Apr (2) CCNWR (CAS), lrs. Ring-necked Duck: 31 May (1) GSP (DTC, JPC), lrs. Lesser Scaup: to EOP (1, possibly injured) RDL (CAS, m. ob.), lrs. BLACK SCOTER: 29 Apr (1 male) near PAR (+CGD), first NA spring record and 6th overall. White-winged Scoter: 29 Apr (6) near PAR (CGD); only report.

Surf Scoter: 29 Apr (3) near PAR (CGD), only report. Bufflehead: 9 May (1) RDL (CAS), lrs. Red-breasted Merganser: 4 May (1) PUC (SJS), lrs. Ruddy Duck: 1 May (2) Franklin Reservoir, WMC on NA SBC (SJS, Jan C. Alexander, Anne and Robert Nixon), lrs.

*Eagle-Merlin*: Bald Eagle: 19 Apr (1 im) Laurel Hill Lake, LWC (DJS); 30 Apr (1) CHC on NA SBC (CGD). Northern Harrier: 4 May (1 ad male) CCNWR (DWB), lrs. Sharp-shinned Hawk: 16 reports 6 Mar–30 May. Cooper's Hawk: 17 reports. Broad-winged Hawk: 29 Mar (1) PUC (BHS), ers; 16 Apr (17) PUC (BHS), max. Rough-legged Hawk: 2 Apr (2) Ft. Campbell, MTC (DWB), lrs. Golden Eagle: 16 Mar (1 im) CCNWR (TJW), only report. Peregrine Falcon: 22 Mar (1) SHB (Mark S. Hackney); 27 Apr (1) NASH (WCO); 5 May (1 ad/1 ad) HOC/BAR (DWB); only reports. Merlin: 21 Mar (1) PPL (county?) (Andrew Zipperer), only report.

*Turkey-Crane*: Wild Turkey: 3 Mar/8 May (1/1) BAH (RWS); 13 Mar (5) WSB (DWB); 4 Apr (7) CFC (Joseph Martinez, fide FNM); 5, 13, 19 May (1) CFC (Philip L. Medley); only reports. Ruffed Grouse: 20 Mar/19 May (1/1) BAH (RWS), only reports; state forestry personnel reported this species on Short Mt., Cannon Co. in recent past (fide SJS): that area and others nearer the escarpment of the Cumberland Plateau need checking. Virginia Rail: 13 Apr (1) MOP (DJS), ers; 4 reports 1–14 May in SUC and SWC. Sora: 6 May (37) SWC (DWB, JCR), max and new state max as well; many reports. COMMON MOORHEN: 7–14 Apr (1 ad) MC (MHM, CGD, m. ob.); 1–6 May (1 ad) SWC (DWB, JCR); 4–22 May (1) GSP (JPC, DTC, m. ob.); more than usual number of reports. Sandhill Crane: 2–20 Mar (865+) PIC (RCH); 5 Mar (125) Beaver Hill, OVC (Francis C. Baker, fide RCH); 5 Mar (30) BAH (RWS); 5 Mar (28) Jackson Co. (BHS); 8 Mar (235) Standing Stone S.P., OVC (Candy Swan); 19 Mar (8) Brush Creek, SMC (LDR); 21 Mar (5) Robertson Co. (RPF); a well-reported migration for this species.

*Plover-Phalarope*: Black-bellied Plover: 5 May (1) BAR (DWB), only report. Lesser Golden-Plover: 31 May (1) Green's Lake, SUC (JPC), lrs and new NA late spring date. Semipalmated Plover: 17 Apr (5) CCNWR (CAS), ers and very early; 15 May (100+) GSP (WCO), max. Killdeer: 2 Mar (368) CCNWR (JCR), max. American Avocet: 14–16 May (1) GSP (DTC, JPC), only report. Greater Yellowlegs: 27 May (1) CCNWR (JCR), lrs and very late. Lesser Yellowlegs: 27 May (1) SUC (DTC, JPC), new NA late spring date; 30 May (1) CCNWR (JCR), lrs. Solitary Sandpiper: 6 May (36) SWC (DWB), max; 22 May (1) Dunbar Cave S.P., MTC (JCR), lrs. Willet: 26 Apr/10 May (3/10) ROB (DJS), only reports. Upland Sandpiper: 1 Apr (2) SHB (MHI), ers; 13 Apr (5) Lawrenceburg, LWC (DJS), max; 1 May (1) MC (JCR); 5 May (3) Tennessee City, DIC (DWB), lrs; only reports. Semipalmated Sandpiper: 1 Jun (8) CCNWR (JCR), lrs. Western Sandpiper: 26 Apr–27 May (1–3) SUC (DTC, JPC); 7–15 May (up to 3) ROB (DJS); only reports. White-rumped Sandpiper: 7–15 May (up to 3) ROB (DJS), first LWC record; 9 May (1) near Macedonia, WHC (BHS); 24 May (25) CCNWR (JCR), max; 15–17 Jun (1) CCNWR (JCR), lrs. Baird's Sandpiper: 7 May (1) ROB (DJS), only report. Pectoral Sandpiper: 27 Feb (2) ROB (DJS, David C. Chaffin), ers; 26 May (2) BAR (DWB), lrs; see addendum. Stilt Sandpiper: 15 May (4) ROB (DJS, MAB), only report. Short-billed Dowitcher: 10 May (1, ph) PUC (SJS), only report with details. Wilson's Phalarope: 11 May (1) CCNWR (TJW, JCR), first SWC spring record; only report.

*Gull-Woodpecker*: FRANKLIN'S GULL: 13–24 Mar (1 ad) Dover, SWC (JCR, DWB), early; only report. Bonaparte's Gull: 30 Apr (2) GSP on NA SBC (DTC, JPC), lrs. Ring-billed Gull: 2 Mar (350) SWC (JCR), max. Caspian Tern: 26 Mar (1) PPL (county?) (CAS), new NA early spring date. Forster's Tern: 26 Mar (15)

PPL (county?) (CAS), new NA early spring date; 23 May (3) CCNWR (JCR), lrs. Black Tern: 11 May (1) CCNWR (JCR), only report. Black-billed Cuckoo: 4 reports 27 Apr–5 May in DVC, HOC, MUC. Common Barn-Owl: 16–17 Apr (1) CHC (MHI), only convincing report. Chuck-will's-widow: 20 Apr (1) CFC (FNM), ers. Whip-poor-will: 5 Apr (1) LBL (DWB), ers. Chimney Swift: 29 Mar (1) CLA (EJW), ers. Ruby-throated Hummingbird: 27 Mar (1) CLA (EJW), ers. Red-headed Woodpecker: 30 Apr (11) CHC on NA SBC (CGD, m. ob.), max.

*Flycatcher-Creeper*: Olive-sided Flycatcher: 1 May (1) RDL on NA SBC (CAS); 4 May (1) HOC (DWB); only reports. Acadian Flycatcher: 13 Apr (1) CLA (EJW), ers. ALDER FLYCATCHER: 11 May (1 calling) CCNWR (JCR, DWB), first verified SWC record; 14 May (1 calling) LBL (JCR), second SWC record; 19 May (1 calling) CCNWR (JCR), third SWC record; 29 May (1 calling) CCNWR (DWB), you guessed it, fourth SWC record. Least Flycatcher: 5 reports 29 Apr–17 May in DVC, LWC, WMC. Great Crested Flycatcher: 9 Apr (1) WAP (DFV), ers. Eastern Kingbird: 7 Apr (1) CFC (Quincy Stykes), ers. Tree Swallow: 5 Mar (5/13) MOP/CCNWR (fide ARL/DWB, JCR), ers. Bank Swallow: 26 May (3) PUC (SJS), lrs. Cliff Swallow: 30 Apr (1,200) CHC on NA SBC (CGD, m. ob.), max. Barn Swallow: 12 Mar (1) PPL, DVC (RLK, JCR), ers. Brown Creeper: 22 Apr (1) WSB (DWB), lrs.

*Bewick's Wren*: 7 Mar (2) Choctaw Trail, WMC (Elaine Borders), ers; 29 Mar–EOP (pair with 5 yg) WLC (Earline C. Berry); 5 Apr/7 May (1) Rock Springs Rd., RUC (TJW); 10 Apr–4 May (1) Erin Fire Tower, HOC (DWB); 16 Apr (1) near Loretto, LWC (DJS); during most of May (1) Brush Creek, SMC (LDR); 7–8 May (5) WLC on Lebanon SBC (fide RVM); 12 May (1) E of Lebanon, WLC (RVM); 14 May (1) Hurricane Creek Rd., SWC (JCR); 17 May (3) Westvaco clearcut on Hwy 18, SWC (DWB); 29 May (1) E WMC (SJS); 31 May (4/3) Westvaco clearcut on Hwy 18, SWC/MTC (DWB); a good number of reports.

*Wren-Waxwing*: House Wren: 27 Mar (1) NASH (C. Rowan Debold), ers. Winter Wren: 27 Mar (1) WMC (KAG), lrs. Marsh Wren: 1 May (1) BCWMA (JCR), ers; 4 May (1) PUC (BHS, SJS); 6 May/19 May (5/5) BAR/BCWMA (DWB/JCR), max/max and lrs. Blue-gray Gnatcatcher: 24 Mar (1) CFC (FNM), ers. Veery: 25 May (1) RDL (CAS), lrs. Gray Catbird: 25 Mar (1) Pennington Bend, DVC (MLM), ers. Water Pipit: 1 May (1) SHB (JCR), lrs. Cedar Waxwing: many birds present at EOP, suggesting more than usual regional nesting might occur during Summer 1988.

*Vireo-Warbler*: White-eyed Vireo: 6 Mar (1) WAP (DFV), ers and new NA early spring date. Yellow-throated Vireo: 5 Apr (1) CLA (AHH), ers. Philadelphia Vireo: 25 Apr (1) N of Dover, SWC (DWB), only report. Blue-winged Warbler: 10 Apr (1) PUC (SJS), ers. Orange-crowned Warbler: 11 Apr (1) RDL (WCO); 19/23 Apr (1/1) LWC (DJS); 27 Apr (1) RDL (WCO); only reports. Northern Parula: 2 Apr (1) Lewis Co. (MHM), ers. Yellow Warbler: 30 Mar (1) Narrows of the Harpeth, CHC (MLM), ers and new NA early spring date. Chestnut-sided Warbler: 30 May (1) RDL (CAS), lrs. Prairie Warbler: 4 Apr (1) Long Hunter S.P., DVC (MLM), ers; ties NA early spring date. Palm Warbler: 26 May (1) WHC (BHS), late; 4 Jun (1) MC (DFV), lrs and new NA late spring date. Bay-breasted Warbler: 18 Apr (1) Oaklands Park, RUC (TJW), ers and new NA early spring date. Blackpoll Warbler: 19 Apr (1) PUC (BHS), ers; 26 May (1) PUC (SJS), lrs. Worm-eating Warbler: 9 Apr (1/1) PIC/SWC (RCH/JCR), ers. SWAINSON'S WARBLER: 23–30 Apr (1) Ashland City Marsh, CHC (CGD, m. ob.), only report; same area where a bird of this species was detected last spring; very few NA records. Louisiana Waterthrush: 22 Mar (1) Grasmere, NASH (Portia R. McMillan) ers. Connecticut Warbler: 14 May (1 male) LBL (JCR), only report (good

details). Mourning Warbler: 10 May (1) LWC (DJS), ers; 10–30 May (1–2) RDL (TJW, CAS, WCO, m. ob.); 14 May (1) SWC (JCR); good details on these reports. Canada Warbler: 11 May (about 10) RDL (fide Ann T. Tarbell), max.

*Tanager-Junco*: Summer Tanager: 4 Apr (1) Dunbar Cave S.P., MTC (AHH), ers; very early. Scarlet Tanager: 3 Apr (1) Woodland Park, MUC (ARL), ers; very early. Rose-breasted Grosbeak: 24 Apr (1/1) WAP/RDL (DFV/Mary A. Zimmerman), ers. PAINTED BUNTING: 7 May (1 male) LWC (•DJS, MAB), first regional record. BACHMAN'S SPARROW: 24 Apr/14 May (2/2) SWC (DWB, •JCR/•JCR), only reports. Chipping Sparrow: 6 Mar (1) CFC (FNM), ers. Vesper Sparrow: 17 Apr (1) LBL (CAS), lrs. Lark Sparrow: 17 Apr (1) WMC (DFV, KAG); 11–28 May (pair with yg in nest) Simmons Bluff Rd., WLC (RVM, TJW), only reports. Grasshopper Sparrow: 17 May (5) SWC (JCR), high for SWC. SHARP-TAILED SPARROW: 1 May (1) SHB (•JCR, DJS), only report. Fox Sparrow: 3 Apr (1) BAH (RWS), lrs. Swamp Sparrow: 19 May (1) BCWMA (JCR), lrs; very late. White-throated Sparrow: Mar (80) Pennington Bend, DVC (MLM), max. White-crowned Sparrow: 15 May (2) SWC (JCR, DWB), lrs. Dark-eyed Junco: 5 May (1) CLA (AHH), lrs.

*Meadowlark-Grosbeak*: WESTERN MEADOWLARK: 5 Mar (1 singing) CCNWR (•JCR, DWB), first well-supported regional report. Pine Siskin: 26 Mar/2 Apr (150+/200+) BAH (RWS), indicative of the high numbers in the region this spring; the following county late dates show the uniform departure of this species from the region: 7 May CFC (Chloe Peebles); 11 May MTC (EJW); 12 May PIC (RCH); 13 May SUC (DTC, JPC); 13 May PUC (RWS); 14 May SWC (JCR). Evening Grosbeak: 30 Mar (2) Woods Reservoir, Franklin Co. (Carol Barr); 30 Mar (4) Erin Fire Tower, HOC (DWB); only reports.

*Addendum*: Pectoral Sandpiper: 31 May 1987 (7) MUC (George R. Mayfield, Jr., William N. Jernigan), very late.

*Locations*: BAH—Barnes Hollow, Putnam Co.; BAR—Barkley Wildlife Management Area, Stewart Co.; BCWMA—Bear Creek Waterfowl Management Area, Stewart Co.; CCNWR—Cross Creeks National Wildlife Refuge, Stewart Co.; CFC—Coffee Co.; CHC—Cheatham Co.; CLA—Clarksville, Montgomery Co.; DIC—Dickson Co.; DVC—Davidson Co.; GSP—Gallatin Steam Plant, Sumner Co.; HOC—Houston Co.; LBL—Land-Between-the-Lakes, Stewart Co.; LWC—Lawrence Co.; MC—Metro Center, Davidson Co.; MOP—Monsanto Ponds, Maury Co.; MTC—Montgomery Co.; MUC—Maury Co.; NA—Nashville Area (includes all of Cheatham, Davidson, Robertson, Rutherford, Sumner, Williamson and Wilson Counties, as well as parts of Dickson and Trousdale Counties); NASH—Nashville; OVC—Overton Co.; PAR—Pardue's Pond, Dickson Co.; PIC—Pickett Co.; PPL—Percy Priest Lake, Davidson, Rutherford and Wilson Counties; PUC—Putnam Co.; RDL—Radnor Lake State Natural Area, Davidson Co.; ROB—Robertson Pond, Lawrence Co.; RUC—Rutherford Co.; SHB—Shelby Bottoms, Davidson Co.; SMC—Smith Co.; SUC—Sumner Co.; SWC—Stewart Co.; WAP—Warner Parks, Davidson Co.; WHC—White Co.; WLC—Wilson Co.; WMC—Williamson Co.; WSB—Wiley's Spring Bay, Stewart Co.

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EASTERN RIDGE AND VALLEY REGION—Drought conditions worsened during this season, with the 3 major reporting stations receiving only 50–60% of the normal rainfall. March was the driest month, with Chattanooga getting 1.8

in. (4.5 in. deficient) and Johnson City getting 1.5 in. (2.7 in. deficient). Precipitation during April and May increased slightly, with these two stations receiving over 5 in. each (still 2–3 in. below average) for that 2-month period. Although a few cold snaps tempered things a bit, it was an “early spring,” with both March and April being warmer than normal. May was slightly cooler than normal. One result of the early warmth was that many trees leafed out earlier than usual, obscuring visibility of woodland birds. Because of the drought, water levels in the upper lakes were very low, except for relatively small Boone Lake. Near Chattanooga, Chickamauga Lake reached full pool in late April.

Except for a few rarities, this season was described by most respondents as rather uneventful. With the early warm temperatures came some earlier-than-normally-expected migrants; but then other species were late. Most waterfowl species moved through early and in low numbers. Shorebirds passed through on time, but in slightly reduced numbers—at least partly due to reduced habitat. Few waves of passerines were reported, but there were few fronts to ground them. The biggest surprises were a Common Black-headed Gull at Kingston Steam Plant and a pair of Northern Saw-whet Owls with 2 young in Claiborne County. Also notable were Marbled Godwit, Franklin’s Gull and a lingering Red-necked Grebe. The increases in cormorant sightings and the continued growth of the Greater Sandhill Crane population were encouraging.

The first reports from the new Cumberland County Chapter appear here. Welcome!

*Loon-Heron:* Common Loon: 6–20 Apr (1–4) BOL (RLK, BIC); 12 Apr/12 May (24/4) Tellico Lake, Monroe Co. (JAK, Wesley K. James); 19 Apr (8) CRL (RLK, BIC, JWB); 24 Apr (4) CHL (ESK), last there. Pied-billed Grebe: 4 May (1) AUS (RLK), Irs. Horned Grebe: 24 Apr (2) CHL (ESK), Irs. RED-NECKED GREBE: 1 Mar (1) CHL (AMJ), holdover from last season. Double-crested Cormorant: 6 Apr (9) BOL (RLK); 9 Apr (several) KNX (Marcia L. Davis, et al.); 19 Apr (8) CRL (RLK, BIC, JWB); 24 Apr (1) AUS (RLK), (15) KNC SBC (KTOS); 8–9 May (3) AUS (RLK); 11 May (4) Fort Loudon Lake, KNC (JAK); 16 May (1) BOL (RLK); 24 May (2) Douglas Lake, JEC (JAK); good showing (no reports from CHA area?). American Bittern: 12 Apr (1) CHA (RJH); 25 Apr (1) AUS (RLK); only reports. Least Bittern: 5 Apr (1) AMM (RJH), only report. Great Egret: 1–12 Apr (1–6) SAB (KHD, LHD); 16 Apr–17 May (1–2) AUS (RLK, BIC); 24 Apr (1) KNC SBC (JAK); 24 May (3) Douglas Lake, JEC (JAK). Little Blue Heron: 2–3 Apr (1) W KNC (BAF); 13 Apr (1) AUS (BIC). Cattle Egret: 24 Apr (1) KNC SBC (KTOS). Black-crowned Night-Heron: 12 Apr/26 May (1/2) BOL (BIC/RLK); 13–18 Apr (1) JNC (FJA). Yellow-crowned Night-Heron: 2 Apr (3) Brainerd Levee, CHA (KHD, LHD), Irs at only site reported.

*Waterfowl:* Canada Goose: many yg seen in JNC area (LHTOS). Blue-winged Teal: 19 Apr (140+) CRL (RLK, BIC, JWB), max. Northern Shoveler: 18 Apr (39) BOL (RLK); 19 Apr (88) CRL (RLK, BIC, JWB); high numbers for NE Tennessee. American Wigeon: 25 Apr (12) AUS (RLK), Irs. Canvasback: 13 Mar (3) RAC (AMJ), only report. Greater Scaup: 13 Mar (80) RAC (AMJ); 20/27 Mar (160/67) CHL (KHD, LHD), max/Irs. Lesser Scaup: 18 Apr (9) BOL (RLK), last migrants; 1 male through EOP in JNC (RLK, MD). White-winged Scoter: 20–27 Mar (1–2) CHL (KHD, LHD, RJH). Hooded Merganser: 15 Apr (1) BOL (JWB), Irs. Common Merganser: 5 May (2) BOL (BIC), only report. Red-breasted Merganser: 27 Mar (26) CHL (KHD, LHD); 1–28 Apr (1–3) BOL (RLK); 24 Apr (2) KNC SBC (KTOS). Ruddy Duck: 19 Apr (5) CRL (RLK, BIC, JWB), Irs.

*Vulture-Crane*: Black Vulture: 19 Mar (40 at roost) Meigs Co. (KHD, LHD); 24 Apr (32) KNC SBC (KTOS), high number for area; continued increase in number of sightings in the JNC area (LHTOS). Turkey Vulture: 24 Apr (80) KNC SBC (KTOS), high number for area. Osprey: 5 Mar (1 at nest) HRA (KHD, LHD, et al.), ers; 9 Apr-13 May (several sightings) JNC area (LHTOS); 22 Apr (1) CUC (RSD, et al.). Bald Eagle: 13 Mar (1 im) BOL (RLK); 18 Apr (1 ad) SAB (LHD); only reports. Sharp-shinned/Cooper's Hawks: 3/8 reports in JNC area (LHTOS). Golden Eagle: 1 Mar (1 ad) SIM (J. Thomas Patton); 5 Mar (1 im) HRA (CHA Chapter TOS); see comments last season. Wild Turkey: 6 May (2) CUC (RSD, et al.). Virginia Rail: 5 Apr (1) AMM (RJH), only report. Sora: 5 Apr (1) AMM (RJH); 8 May (1) AUS (RLK); only reports. Sandhill Crane: 20+ reports from over 9 observers in the CHA area totaled 2,384+ cranes (some duplication likely) from 16 Feb to 2 Apr, highlighted by 500 roosting on SAB mudflats on 3 Mar and 700 (in 2 groups in Meigs and Rhea Counties) standing/feeding on 5 Mar ("a very conservative count and the largest number ever observed on the ground in this area") (all fide KHD).

*Sandpiper-Tern*: Solitary Sandpiper: 24 Mar (1) JNB (RLK), ers; 24 Apr (42) KNC SBC (KTOS), max. Spotted Sandpiper: 30 May (1) AUS (RLK), lrs, late. MARBLED GODWIT: 18 Apr (2) Eagle Bend Fish Hatchery, Anderson Co. (Mike Smith, CPN), not found next day; about 15th state record (the 6th for this region) and only the 3rd in spring. Sanderling: 14 May (1) CHA (LHD, et al.), seldom reported in spring. Western Sandpiper: 21 May (1) KSP (RJH), also scarce in spring. White-rumped Sandpiper: 21 May (1) KSP (RJH); 24 May (2) JEC (JAK); only reports. Dunlin: last seen 26 Mar HRA (KHD, LHD); up to 79 reported earlier in season at this wintering site. Common Snipe: 6/26 Mar (112/139) SAB/HRA (KHD, LHD), max. American Woodcock: 1-2 all period at AUS (RLK, et al.); 1 Mar (3) Moccasin Bend, CHA (RJH); 1-2 Mar (1) SAB (KHD). FRANKLIN'S GULL: 29 Apr (1 ad) KSP (•RLK), 5th regional record. COMMON BLACK-HEADED GULL: 1 May (1) KSP (•DJS), 2nd state record. Bonaparte's Gull: 1-22 Apr (14-30) BOL (RLK, BIC, et al.), max; 12 May (1) BOL (FJA), lrs. Herring Gull: 8 May (1 im) KSP (ARH, RDH), lrs. Caspian Tern: 18-19 Apr (1-2) BOL (RLK, BIC), 3rd local spring record. Forster's Tern: 12 Apr (1) SAB (LHD); 12 Apr (1) BOL (RLK), earliest JNC area by 4 days; 18 Apr (3) BOL (RLK).

*Cuckoo-Woodpecker*: Black-billed Cuckoo: 8 May (1) Petros, MGC (ARH, RDH), only report. Yellow-billed Cuckoo: 30 Apr (1) GNC (Richard and W. Ruth Nevius), ers. Common Barn-Owl: 8 May (2) JNC (RLK, JWB), at known nest site. NORTHERN SAW-WHET OWL: 8-11 May (2 ad, 2 fledglings, ph) near Speedwell, Claiborne Co. (George W. McKinney, JBO), first breeding evidence outside of high elevations of the Great Smoky Mountains National Park; details to be published. Chimney Swift: 23 Mar (1) JNB (JWB), ers and earliest JNC area by 6 days. Red-headed Woodpecker: 7 Mar (1) Norris Lake, Union Co. (CPN); 11 Mar/15 Apr-6 May (1/5-7) CUC (CPN/RSD, et al.); 19 Apr (1) Grainger Co. Park (RLK, BIC, JWB); 23 Apr (1) JNC (MD); 24 Apr (1) Gray, WGC (FJA); 5 May (1) E Campbell Co. (CPN); 23 May-EOP (pair) Afton, GNC (Daniel J. Neives); 3 sites in W WGC (RLK, BIC); good showing.

*Lark-Vireo*: Horned Lark: 12 Mar (several pairs) JEC (JAK); 17 Apr (pair) LST (RLK); 13 May (1 singing) JNB (RLK). Purple Martin: 2 Mar (1) KNC (fide JBO), ers. Bank Swallow: 12 Apr (1) BOL (RLK), ers; 29 Apr (30+, at least 15 nest burrows in ash bank) KSP (RLK). Cliff Swallow: 29 Apr (75-80 active nests) I-24 bridge over Sequatchie River, Sequatchie Co. (James T. Tanner), new nesting location. House Wren: 25 May (1, nest building) Hixson, Hamilton Co. (Andrew J. Liner). Winter Wren: 24 Apr (1) JNC (RLK), lrs. Marsh Wren: 25-26 Apr/17

May (1) AUS (RLK); 4 May (1) Tri-cities Regional Airport, Sullivan Co. (BIC); 5 May (1) Doake's Pond, Campbell Co. (CPN). Golden-crowned Kinglet: 16 Apr (2) JNC (RLK), lrs. Ruby-crowned Kinglet: 8 May (1) JNC (RLK), lrs. Blue-gray Gnatcatcher: 30 Mar (1) NOR (CPN), ers. Water Pipit: late dates include 5 May (2) KSP (BHS, Paul Harris); 8 May (12) LST (RLK, JWB); 17 May (1) LST (BIC), lrs and latest JNC area by 12 days. Cedar Waxwing: very common through EOP in N half of region (m. ob.); fewer in CHA area (lrs there 24 May, fide KHD). Loggerhead Shrike: single sightings from BLC, Sullivan Co., WGC (JAK, RLK, BIC); 4 Apr (1, on nest) SAB (KHD). Warbling Vireo: 24 Apr (1) KNC SBC (KTOS), rarely reported there (fide CPN). Philadelphia Vireo: 24 Apr (2) KNC SBC (KTOS). Red-eyed Vireo: 11 Apr (1) NOR (CPN), ers.

*Warbler-Grosbeak*: BREWSTER'S WARBLER: 8 May (1) MGC (ARH). Orange-crowned Warbler: wintering bird in KNX last seen 20 Mar (Louise F. Fuller); 8 Apr (1) CHA (RJH). Blackburnian Warbler: 5 Apr (1) KNX (BAF), ers. Pine Warbler: 16 May (1 ad feeding yg) BOL (RLK), few JNC area breeding records. Prothonotary Warbler: 26 Apr (1, window kill) JNC (••Mr. and Mrs. Milton Parker); 4/9 May (1) AUS (RLK/BIC), only reports from only JNC area nest site; 5-6 males were present at Rankin Bottoms, Cocke Co. (JAK). Dickcissel: 8-17 May (1-2) LST (RLK, et al.); 17 May (1) BLC (JAK); 24 May (5+) JEC (JAK). Vesper Sparrow: 13 Mar-18 Apr (max of 15 on 27 Mar) AUS (RLK, BIC). Savannah Sparrow: 17 May (1) AUS (RLK), lrs. Grasshopper Sparrow: 17 Apr (1) JNB (RLK), ers. Swamp Sparrow: 8 May (1) AUS (RLK, JWB), lrs. White-crowned Sparrow: 4 May (2) GNC (PHB), late; 8 May (1) WGC (RLK, JWB), lrs. Dark-eyed Junco: 18 Apr (1) BOL (RLK), lrs. Rusty Blackbird: 24 Apr (6) KNC SBC (KTOS), lrs. Red Crossbill: 19-20 Mar (1 male, 1 female) sick birds brought to CHA Nature Center, later died (Linda B. Harris); 10 Apr (5) Oneida, Scott Co. (CPN). Pine Siskin: continued high numbers from winter; last reports include 6 May CUC (RSD, et al.); 10 May KNX (fide CPN); 13 May GNC (PHB); 18 May JNC (LHTOS); 30 May SIM (Jonnie Sue Lyons). Evening Grosbeak: mid-Mar-early Apr KNX (fide CPN); 17 Mar-13 Apr (up to 11) GNC (PHB); 8-29 Apr (2-3) CUC (RSD, et al.); 26 Apr-10 May (up to 20) JNC area (LHTOS); no reports from CHA.

*Locations*: AMM—Amnicola Marsh, Hamilton Co.; AUS—Austin Springs, Washington Co.; BLC—Blount Co.; BOL—Boone Lake, Sullivan and Washington Cos.; CHA—Chattanooga; CHL—Chickamauga Lake, Hamilton Co.; CRL—Cherokee Lake, Grainger, Hamblen and Hawkins Cos.; CUC—Cumberland Co.; GNC—Greene Co.; HRA—Hiwassee River Area, primarily Meigs Co., but also Bradley, McMinn and Rhea Cos.; JEC—Jefferson Co.; JNB—Jonesborough, Washington Co.; JNC—Johnson City; KNC—Knox Co.; KNX—Knoxville; KSP—Kingston Steam Plant, Roane Co.; LST—Limestone, Washington Co.; MGC—Morgan Co.; NOR—Norris, Anderson Co.; RAC—Raccoon Mountain Pumped Storage Reservoir, Marion Co.; SAB—Savannah Bay, Hamilton Co.; SIM—Signal Mountain, Hamilton Co.; WGC—Washington Co.

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EASTERN MOUNTAIN REGION—Dry weather is the most talked about element from our area this period. March had a rainfall deficit of 2.5 in., and deficits of 1 in. were recorded for both April and May. The cumulative total of rainfall since January 1988 is almost 12 in. below the average; needless to say, things are getting very dry. No noticeable effect on the nesting species has been observed so far.



We had a couple of unusual occurrences during the period: a Tricolored Heron in April in Carter County and the discovery of a Tree Swallow nest in an old motel sign in Butler. This nest fledged 5 young and is only the second confirmed nesting report from the 5-county upper east Tennessee area.

Our early spring waterfowl movement was almost nonexistent and the shorebird flight was about as weak. Flycatchers, thrushes and warblers all had somewhat above average spring flights in the area.

*Loon-Hawk:* Common Loon: 22–26 May (1–2) WatL (RLK), late and only report during period. Green-backed Heron: 5 Apr (1) Siam Valley, CRC (FJA), ers. TRICOLORED HERON: 1–2 Apr (1) Great Lakes Pond, CRC (RLK, BIC), first local and regional record. Yellow-crowned Night-Heron: 31 Mar (1) Eliz (RLK), ers, nest located on 6 Apr. Canada Goose: 1 Mar–10 Apr (75+) WatR (LHTOS), 4 birds with yellow neck collars that were banded in North Carolina; good nesting results in the area this spring. Green-winged Teal: 19 Mar (6) WatR (CFW), only report in area. American Black Duck: 10 Mar (2) RIL (FJA), lrs. N. Pintail, Gadwall, N. Shoveler, Canvasback, Redhead and Common Goldeneye: no sightings reported during the entire period, very unusual. Ring-necked Duck: 13 Mar (60) WatL and 22 Apr (1) WibL, lrs (RLK). Greater Scaup: 24 Apr (1) Erwin, Unicoi Co. (JWB), lrs. Bufflehead: 7 May (3) WibL (LHTOS), lrs. Hooded Merganser: 3/6 Mar (5/10) RIL (CFW); 18 Apr (3) WatR (BIC), lrs. Black Vulture: 18 Mar (18) Hampton, CRC (GWS); this species on the increase in our area. Osprey: 31 Mar–8 May in Eliz area (LHTOS). BALD EAGLE: 19 Mar (1 ad) SHL (FJA). Northern Goshawk: 8 May (1) Butler, JHC (GDE and HHF). Red-shouldered Hawk: 19 Apr (1) Eliz (GOW); 8 May (2) Butler, JHC (GDE, HHF).

*Turkey-Raven:* Wild Turkey: 8 May (1) RIL (FJA); 20 May (1) Buffalo Mt., Washington Co. (MD, BIC, GWS). Greater Yellowlegs: 5 Apr (3) Eliz (FJA). American Woodcock: 24 Apr (1 at 1,675 meters elev.) Carver's Gap, CRC (FJA). Bonaparte's Gull: 22 Apr (1) WibL (MD). Black-billed Cuckoo: 8 May (1/1) Butler, JHC/MC (GDE, HHF/FJA). Yellow-billed Cuckoo: 29 Apr (1) Eliz (GDE), ers. Common Barn-Owl: through EOP (nest with 2 yg) Eliz (fide GDE). Great Horned Owl: through EOP (nest with 2 yg) near MC (FJA). Barred Owl: 8 May (3) Ripshin Mt., CRC (FJA). Chuck-will's-widow: 26 Apr (1) MC (FJA), ers. Whip-poor-will: 4 Apr (1) Eliz (GOW). Chimney Swift: 4 Apr (1) Eliz (HHF), ers. Ruby-throated Hummingbird: 17 Apr (1) Eliz (HHF), ers. Red-headed Woodpecker: 6 Mar (1) Eliz (JWB), only report in area. YELLOW-BELLIED FLYCATCHER: 21 May (1 seen and heard calling at 1,550 meters elev.) GSMNP, Sevier Co. (JCR). Least Flycatcher: 7 May (5) RM (LHTOS), ers. Alder Flycatcher: 14 May (1) RM (Brenda Hull), ers. Horned Lark: 9 Apr (1) Eliz (FJA), only report in area. Purple Martin: 8 Mar (2) Eliz (fide GDE), ers. TREE SWALLOW: 8 May–EOP (nesting pair with 5 yg) Butler, JHC (GDE, HHF, RLK). Common Raven: 1–4 birds on RM, Holston Mt. and Big Bald Mt. in Unicoi Co. throughout period.

*Nuthatch-Grosbeak:* Red-breasted Nuthatch: 18 Mar (1) Ripshin Mt., CRC (FJA); 3–6 on RM through EOP. Brown Creeper: 8 May (1) Ripshin Mt., CRC (FJA), lrs. House Wren: 14 Apr (1) Eliz (GDE), ers. Winter Wren: 25 Apr–2 May (1 pair) Buffalo Mt., Washington Co. (BIC). Blue-gray Gnatcatcher: 4 Apr (1) Eliz (GOW), ers. Veery: 7 May (1) Eliz (GOW, RLK), ers. Gray-cheeked Thrush: 7 May (1) WatL (GOW, RLK), ers. Warbling Vireo: 30 Apr (1) Eliz (GOW), ers. Blue-winged Warbler: 26 May (1 singing male) WatL (RLK), lrs. Pine Warbler: 11 Mar–EOP (1–2) WibL (LHTOS). Cerulean Warbler: 21 Apr (1) WibL (BIC), ers. Swainson's Warbler: 27 May (1) Rock Creek Park, Unicoi Co. (GWS, MD, BIC). Wilson's Warbler: 8 May (2) RM (FJA). Summer Tanager: 19 Apr (1) Eliz (fide Lois Herndon), ers. Vesper Sparrow: 10 Apr (2) Eliz airport (FJA). White-

crowned Sparrow: 8 May (1) MC (FJA), lrs. Red Crossbill: 12 Mar (10) Cove Ridge, JHC, near WatL (JWB); 29 May (5) GSMNP (TJW, Ceryl Ploger). Pine Siskin: present in high numbers through 18 May (LHTOS). Evening Grosbeak: 8 May (20) Eliz (fide GDE), lrs.

*Locations:* CRC—Carter Co.; Eliz—Elizabethton area, Carter Co.; GSMNP—Great Smoky Mountains National Park; JHC—Johnson Co.; MC—Milligan College, Washington Co.; RIL—Ripshin Lake, Carter Co.; RM—Roan Mountain, Carter Co.; SHL—South Holston Lake area, Sullivan Co.; WatL—Watauga Lake; WatR—Watauga River, Carter Co.; WibL—Wilbur Lake, Carter Co.

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The Migrant records observations and studies of birds in Tennessee and adjacent areas. Most articles are written by members of the Tennessee Ornithological Society.

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