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## THE MIGRANT

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# THE MIGRANT

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The Migrant, 60(1):1-3, 1989

#### A CONCENTRATION OF BEWICK'S WRENS IN STEWART COUNTY, TENNESSEE

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ABSTRACT.—During surveys of forest clear-cut areas in Stewart County, Tennessee, an unusually large concentration of 21 Bewick's Wrens (*Thryomanes bewickii*) was inadvertently discovered in July 1987. The wrens were found in habitat created by the forest clear-cut operations of a local timber company. Nineteen of 29 known clear-cut areas in Stewart County were surveyed between 15 July and 24 July 1987; Bewick's Wrens were present at eight of these sites.

When large areas of forest are clear-cut by timber companies and planted to pine or allowed to undergo natural succession, Bachman's Sparrows (Aimophilia aestivalis) will sometimes utilize the resultant habitat (Nicholson 1976). Several of these sparrows have been discovered in Giles, Lawrence, Lewis and Hardin Counties as a result of recent work by Damien Simbeck (Damien Simbeck, pers. comm.). While searching for Bachman's Sparrows in Wayne County, Tennessee, on 21 June 1987, Simbeck and I discovered three Bewick's Wrens (Thryomanes bewickii) in two different clear-cut areas. In Stewart County, I initiated a survey of Westvaco Timberlands Division (hereafter Westvaco) clear-cut areas to determine if Bachman's Sparrows were present. It was while I was conducting this survey that I inadvertently discovered a large concentration of Bewick's Wrens.

From 1984 to 1987, Westvaco created 29 clear-cut areas of varying size (ranging up to 30 ha) near Dover, Tennessee. All of the clear-cuts are south of Highway 79 and west of Highway 49. Most of these areas have been, or are being, planted to loblolly pine (*Pinus taeda*). The planned rotation period for these trees is 25–30 years (Steve Morgan, pers. comm.).

During the clear-cut operation, the existing marketable hardwood trees are harvested and then one of two methods is used to prepare the area for the planting of the pine seedlings. One technique, called "mechanical site preparation," involves the use of a large tractor with a V-blade to shear the smaller hardwood trees off at the stumps to prevent sprouting. A second tractor then rakes the resulting debris into long windrows or slash piles. On some occasions the ground is also disked to promote better seedling growth.

The second technique, called "non-mechanical site preparation," is especially useful on steep areas where tractors cannot operate safely. A herbicide is used to

kill the hardwood competition and a controlled burn is often utilized to enhance the effect of the herbicide treatment (Steve Morgan, pers, comm.).

I conducted field surveys on 19 clear-cuts in Stewart County in June and July 1987. Total time spent in the field was 24 hours. On 23 and 27 June I surveyed old field areas east of Highway 49, but I did not find any Bewick's Wrens. On the first day that I surveyed a Westvaco clear-cut area, 15 July, I discovered Bewick's Wrens. Twenty-one wrens were found as follows: three on 15 July; three on 17 July; four, including a recently fledged young, on 18 July; one on 21 July; none on 22 July; and 10 on 24 July. Wrens were found in eight of the 19 clear-cut areas. Of note also was the discovery of two singing Bachman's Sparrows on a clear-cut in western Stewart County on 21 July 1987.

Most of the wrens were discovered after they began scolding and their distinctive call notes attracted my attention. However, some wrens simply flew out in front of me as I walked by a slash pile. Most of the wrens occurred in slash piles that were from one to three years old, but a few wrens were found in slash piles that were less than 12 months old. One Bewick's Wren at a Wayne County site occurred in a clear-cut that was very dense and more than three years old. The vegetation surrounding the slash piles varied from none at all to a composite of young pine trees up to 2 m tall with scattered grasses, forbs, brier thickets and deciduous saplings. The slash piles themselves ranged in height up to 4 or 5 m and were very dense.

It must be emphasized that the discovery of this large concentration of wrens in Stewart County was initially a fortuitous by-product of a Bachman's Sparrow search. By 21 July 1987, I had visited at least once all of the clear-cuts I had planned to census. Realizing that the presence of Bewick's Wrens in the clear-cut areas was most probably underestimated, I returned to three clear-cut areas on 24 July to search for this species. These clear-cuts had previously received only a superficial search because they were successionally too young to support the proper habitat for Bachman's Sparrow. Utilizing a taped recording of the Bewick's Wren song, I was able to locate 10 birds over a three hour period in these three clear-cuts. As a result, I believe the actual concentration of Bewick's Wrens in Stewart County during the summer of 1987 was probably much greater than what I have reported here.

The appearance of such a large number of Bewick's Wrens in clear-cut habitat represents an important, although not unexpected, discovery in Tennessee's ornithological history. Shrubby thickets are among the habitat types identified by Gorton (1977) as being used by Bewick's Wrens. In an Oregon study, Kroodsma (1973) found Bewick's Wrens in an open pasture with dense tangles of wild blackberry (Rubus sp.) and rose (Rosa sp.); the pasture was bordered by mixed stands of coniferous and deciduous trees with dense underbrush. An additional analysis by Kroodsma (op. cit.) of 28 Bewick's Wren territories in a riparian community revealed that the species preferred habitat characterized largely by oak or ash overstory with dense underbrush. Apparently the windrows or slash piles created during Westvaco's mechanical site preparation produce habitat which is analogous to the woody thickets frequently found in the western part of the species' range.

The Bewick's Wren is listed as a State Threatened species (Alsop 1980). Since 1972, the species has appeared on "The Blue List," published periodically in *American Birds* as an early warning system for species which are undergoing a substantial decline in numbers in all or a major part of their range (Tate 1986). The status of Bewick's Wrens throughout Tennessee needs to be closely evaluated. When sightings are made, notes should be taken on the exact location and habitat in which each bird is found. For sightings made during the nesting season, ob-

servers should be alert for the presence of positive breeding evidence as defined by Nicholson and Hamel (1986). The species has been found in a variety of urban, suburban and rural habitats including farms and homes with brush piles, shrubby thickets, stacks of chopped firewood, and deserted farm sheds. Look for Bewick's Wrens among the birds at your bird feeders as this species has overwintered in Tennessee.

While some clear-cut areas have been searched in the past (e.g., Williams 1974) many clear-cuts have received little attention. An intensive, coordinated study of these areas could lead to management recommendations for the Bewick's Wren, Bachman's Sparrow, or other species utilizing this habitat. Research studies addressing micro-habitat utilization, limiting environmental factors and important food items unique to selected target species could be initiated with the cooperation of the appropriate timber company. While not all timber companies operating in Tennessee use the same management practices, there should be a number of counties which currently have the habitat I have described in this paper.

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Accepted 18 April 1988.

#### VERMILION FLYCATCHER IN UPPER EAST TENNESSEE

#### RICHARD L. KNIGHT

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While participating in the Elizabethton Fall Bird Count on 26 September 1987, Brian Cross and I found an immature male Vermilion Flycatcher (*Pyrocephalus rubinus*) at Austin Springs, Washington County, Tennessee. The bird was first sighted as it flew from a tree to a fence post about 15 m from us at 0930 EDT. The sky was clear and the sun was behind us as we studied the bird with  $7 \times 35$  binoculars and a  $20 \times$  spotting scope for over 30 minutes. The bird stayed along a short section of fence near the shoreline of the Watauga River prong of Boone Lake. It captured insects by typical aerial flycatching and by fluttering down to the ground to take prey from the short grass in the field.

The bird appeared slightly smaller than an Eastern Phoebe (Sayornis phoebe), which was verified later when a phoebe occasionally chased it. The Vermilion Flycatcher would pump its tail phoebe-like. This was a very distinctive bird. Its most obvious field mark was the bright red plumage of the underside, extending from the mid-breast to the undertail coverts. The throat and upper breast were light gray with scattered red flecks and the breast was lightly streaked with brown. The crown was dusky gray with red patches at the front and rear. A trace of the black mask could be seen. The back and wings were dusky gray-brown, and two faint pale wing bars were evident. The tail was short and blackish, the bill was small and black, and the eyes and feet were black. No vocalizations were heard.

The bird was present for three days, until 28 September. It remained in the same area near the shoreline, usually on either of two fences. Most perches were low and in the open. More than twenty people saw the bird and identifiable

photographs were secured by the author.

I am aware of ten previous records of this southwestern species in Tennessee, all since 1960. Six of the records are from the Reelfoot Lake area of Lake and Obion Counties (Smith 1965, Hogg 1968, Leggett 1969). Single records exist for Shelby County (Waldron 1985), Lauderdale County (Patterson 1973), Dyer County (Patterson 1970), and Knox County (Owen 1965). All except the Knox County record were in or near the Mississippi River floodplain. There are two spring records, both in mid-May. The others range from 30 September to 27 December. Thus, the Vermilion Flycatcher record documented here is apparently the eleventh Tennessee record, only the second record away from the immediate Mississippi River area, and the earliest fall sighting by four days.

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Accepted 28 February 1988.

# FIRST EVIDENCE OF NORTHERN SAW-WHET OWLS NESTING IN TENNESSEE

GEORGE W. McKinney Rt. 3, Box 89, Speedwell, Tennessee 37870

J. B. Owen 2324 Antietam Road, Knoxville, Tennessee 37917

A pair of Northern Saw-whet Owls (Aegolius acadicus) apparently nested in Claibourne County, Tennessee, in the spring of 1988. On 8 May 1988 George W. McKinney discovered an immature Northern Saw-whet Owl about 3 m above the ground in a cluster of young maples near his home north of Speedwell in Claibourne County, about 56 km north of Knoxville. The site was at an elevation of approximately 375 m (1,200 feet) in a deciduous woodland that contained patches of pines. The young owl was chocolate brown with a buff belly and a conspicuous white "T" above its beak and over its eyes. McKinney returned to the site at dusk and after a while heard Saw-whet "too-too-too" notes. Soon an adult alighted within 3 m of him, and, possibly in response to the intrusion, made bill snapping sounds. A second adult appeared about 50 m away; an immature owl also appeared and after flying a short distance it showed its inexperience by almost falling off the branch on which it landed. From the sounds in the increasing darkness, McKinney thought there were two more immatures. The immature owl he saw had a tail slightly longer than its folded wings.

On 11 May McKinney found another immature Saw-whet in the same clump of maples; this owl's tail was noticeably shorter than its wings. Owen and McKinney later photographed the owl with 35 mm camera and color film. The owl was perched about 5 m above the ground. The positioning of a ladder and the removal of twigs in front of the owl did not cause it to flush; photographs were taken with the camera at eye level with the bird and about 2 m away. The entire visible portion of the eyes at close range seemed to be greenish brown. Neither of us saw any yellow in the eyes of the owl; McKinney did not see any yellow in the eyes of the first young owl.

McKinney found one pellet under the branch where the first immature had perched. He sent it to Dr. Paul Parmalee (Department of Anthropology, University of Tennessee, Knoxville) who found that it contained bones of one Masked Shrew (Sorex cinereus) and one Meadow Jumping Mouse (Zapus hudsonius).

There is no reference in *The Migrant* (1931–1987) or in Stupka (1963. Notes on the birds of Great Smoky Mountains National Park. Univ. Tennessee Press) to any nests or evidence of nesting (e.g., immatures with limited flying capability) of Saw-whet Owls ever being found in Tennessee. Of the 46 items about Saw-whet Owls in *The Migrant*, only two (both are one-time sightings from Nashville) are reports of adults seen during the breeding season away from the higher elevations of the Smokies or Roan Mountain. The lowest mountain elevation mentioned is 1,400 m (4,600 feet).

In *The Wilson Bulletin* (86:173–174, 1974) Simpson and Range mention four records of immature Saw-whet Owls in North Carolina, all of which were found at elevations above 1,585 m (5,200 feet). The four dates are 10 July, 1 September, 2 September, and 2 September. On 16 August 1985, Robert Collier (personal communication) with his family found two immature Saw-whet Owls together in a blueberry bush on Andrews Bald at an elevation of 1,786 m (5,860 feet) in

North Carolina. All of these dates are considerably later than our observations of the Claibourne County owls, and the elevations are 1,200 to 1,615 m (4,000 to 5,300 feet) higher. Perhaps field work in future years will provide a clue as to whether the Claibourne County Saw-whet Owls are part of an unknown Cumberland Mountain foothills population or a one-time, accidental occurrence.

Accepted 14 July 1988.

The Migrant, 60(1):6, 1989

# BLACK SCOTERS AND WHITE-WINGED CROSSBILL IN MIDDLE TENNESSEE

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On 19 April 1985 at approximately 0945 along the Cumberland River near Wiley Springs Bay, Stewart County, Tennessee, I observed a flock of 20 Black Scoters (*Melanitta nigra*) in flight. I noticed that most of the birds had orange on the base of the upper mandible. A few birds were in female plumage with characteristic white cheeks. I saw no sign of a white patch on the wings. As the birds turned and changed positions, I could see the silver of the underwings as the sun hit them. At first, the birds flew in a loose flock; they then changed to a single file, flying low in a northwesterly direction along the Cumberland River. The birds were observed approximately 45 seconds. This sighting represents the only Stewart County record of Black Scoter and is also the highest one-day count recorded in Tennessee.

On 29 November 1977, while in my house in north Montgomery County, Tennessee, I observed a White-winged Crossbill (*Loxia leucoptera*) through a window. Approaching the window cautiously, I was able to stand as close as 1 m from the bird. Clearly visible were two white wing bars and crossed mandibles. Dorsally and ventrally, the body consisted of broken streaks of an orange-yellow color. The wings were black with two white wing bars. I observed the bird as it fed on cone seeds from two eastern hemlocks (*Tsuga canadensis*) for approximately 20 minutes. It then flew away, and I was unable to locate it again. This sighting represents the only one of this species in the Highland Rim and Basin Region of Tennessee. White-winged Crossbills were also present in Martin (28 November–2 December) and on Roan Mountain (2 January–15 March) during the winter of 1977–1978 (Alsop, Migrant 49:39–48, 1978).

Accepted 8 September 1988.

#### BOOK REVIEWS

The Migrant, 60(1):7, 1989

BIRDS AND BIRDING ON THE MISSISSIPPI COAST—by Judith A. Toups and Jerome A. Jackson, 1987. University Press of Mississippi, 3825 Ridgewood Road, Jackson, MS 39211. xvi + 303 pp., \$17.95 plus \$2 postage prepaid.

Lula and I have always been attracted to the Mississippi Gulf Coast, Our 1936 birding party camped for four days within sight of the water. The 1940 Memphis Sea Scout cruise down the Mississippi River ended in Mississippi Sound. The late Austin Burdick, Jr., Ben Welch, Jr. and I took a day off and hiked to Van Cleave, then back across the pine barrens. We were rewarded by seeing a Sandhill Crane. In October 1941, Lula and I worked the coast from Cameron Parish to Destin: north of Ocean Springs we found the Sandhill Cranes; we walked Deer Island with Tom Burleigh. Holiday train excursions (\$10 round trip) from Memphis to Gulfport/New Orleans, often put us aboard an excursion boat to Ship Island. On one trip the late Wendell Whittemore and I slept on the sand and in the Lighthouse. The tourist boat failed to show the next day, so we had to hitch a ride on a boat to New Orleans. Other times we drove down; Interstate and 4-lane highways now make this trip shorter and easier. Accommodations in this longtime resort area are many and varied. What had been needed is such a book as this. Even if you are unable to visit the coast, get the book; it is interesting and enjoyable. If you go, you will find the book very informative and helpful; where to go, where you can find what, even help on planning a "Big Day." Bar graphs show seasonal probability. Detailed map sketches accompany the key places to bird, generally, or for special species. The black and white illustrations, by Dalton King, of 22 species and habitats add to the attractiveness of the book.

There have been many changes since our first visit. Intense development is inevitable in a resort and coastal area, but in other respects there has been improvement in birding opportunities. The Mississippi Sandhill Crane NWR, state parks, and wildlife management areas have been established. The Gulf Islands National Seashore, a wonderful project, gives protection to the important barrier islands, about ten miles out from the public beach, sea wall, and busy U.S. 90 highway. A beautifully located Visitor Center with camping facilities, self-guiding nature trails and more, is located on the mainland at Davis Bayou, southeast of Ocean Springs. Another change is the number of species present. The authors state that the coastal bird list has increased by 70 species since 1944. This, of course, includes rarities, but many can be found with the aid of this book. In 1936, I talked with an Englishman who was anxious to have the Starling appear at his rural home (he later had Sandhill Cranes often fly over). The Black-shouldered Kite (from south Texas) has nested in a coastal county for several years and the American Swallow-tailed Kite and Mississippi Kite are more common.

I cannot close without mentioning a conservation accomplishment of considerable magnitude. You can easily envision the difficulties of Least Terns nesting on a sandy beach used by thousands of tourists who have come for the purpose of using these beaches themselves. It was also necessary, after such tourist use, to maintain the beach with mechanical equipment. The senior author, her associates, and the Gulf Coast Aubudon Society have labored to secure the cooperation of the Harrison County supervisors, and, consequently, designated and posted areas are now available for the nesting of Least Terns on this beach. This is now, truly, the "Least Tern Capital of the World."—Ben B. Coffey, Jr., 672 N. Belvedere, Memphis, TN 38107.

The Migrant, 60(1):8, 1989

A FIELD GUIDE TO LITTLE-KNOWN & SELDOM-SEEN BIRDS OF NORTH AMERICA—by Ben L. Sill, Cathryn P. Sill, and John C. Sill with illustrations by John Sill, 1988. Peachtree Publishers, Atlanta and Memphis, 82 pp., 32 color illustrations, softbound, \$7.95.

We scientists take ourselves all too seriously. As amateur scientists, birders suffer some of the same malady, a seriousness that can be broken only when one of our cherished forms is used properly but for a humorous purpose. The devious authors of this little gem of a book have done just that. From a set of illustrations executed with John Sill's customary skill, the Sills (or is it Sillies?) weave an artful parody on the modern field guide. Complete with a glossary: "Coverts-not used in this guide since we don't know what it means," field notes: "Circle the right answer," and a comparison of the number of new bird species described to six candidate explanations, this guide has all the appropriate features. The authors describe the fieldmarks, behaviors, and range of 32 heretofore unknown species, and include observation hints, range maps, and specialized equipment needs (including serving suggestions) for observing these birds. Among the many interesting forms are the American Bunting, Patrioticus americanus, the Gila Gull, Larus precipitatus, and the Texas Warbler, Dendroica texana. I heartily recommend this little book; the laughs are well worth the price. I might criticize the failure of their specific epithets to agree in gender with their generic names, and to be expressed in lower case, but that would be too serious!-PAUL B. HAMEL, Tennessee Department of Conservation, 701 Broadway, Nashville, TN 37219.

Received 8 December 1988.

The Migrant, 60(1):8-9, 1989

Annotated Checklist of the Birds of Kentucky—by Burt L. Monroe, Jr., Anne L. Stamm, and Brainard L. Palmer-Ball, Jr. 1988. Kentucky Ornithological Society, Louisville. 84 pp., maps, drawings. \$6.00 ppd. from KOS, 9101 Spokane Way, Louisville, KY 40241.

This publication is the first detailed listing of Kentucky birds since Mengel's landmark *The Birds of Kentucky* was published in 1965. In the almost 30 years since the time Mengel completed his manuscript, our knowledge of Kentucky's avifauna, as expected, has greatly increased. This new information is nicely summarized here. The checklist consists of two parts, annotated species accounts, and bar graphs showing seasonal occurrence and abundance. The species accounts consist of a paragraph, of up to about 20 lines, for each species. These include descriptions of seasonal occurrence, habitat preferences, regional differences in occurrence or abundance, and typical numbers in which the species may be encountered. For species with fewer than 15 Kentucky occurrences, all records are listed with their sources. Nesting species, extinct or extirpated species, and species for which there are only documented sight records are clearly marked. Hypothetical species are in a separate listing. The bar graphs are easy to read, and a status

column allows quick determination of in which of four regions of the state a species occurs and/or breeds.

The checklist appears to be professionally produced, and I can find little to criticize. It will be of great value to all students of Kentucky, as well as Tennessee, ornithology, and I strongly recommend it.—Charles P. Nicholson, Box 402, Norris, TN 37828.

Received 26 January 1989.

The Migrant, 60(1):9, 1989

British Warblers—by Eric Simms. 1985. No. 71 in the New Naturalist Series, Collins, London. 432 pp., 6 color plates by Ian Wallace, drawings, maps, photos. \$27.95, softbound.

Simms's stated goal in this book is to "assemble a great deal of material not previously brought together, to include much personal observation on behaviour and vocalizations, and to examine the different genera and individual species occurring in the British Isles" (p. 12). He admirably meets this goal in his coverage of the 8 genera and 45 species of Old World warblers (Sylviinae) occurring in the British Isles.

After introductory chapters which briefly discuss the evolutionary history, range, habitats and different genera of the group, Simms devotes a chapter to each of the British genera, followed by chapters on each of the members of the genus which breed in Britain. The species accounts quite adequately cover most aspects of the identification, range, ecology, behavior, breeding biology, and population trends. Many personal observations are included. Conservation is a strong theme, reiterated in a final chapter on "Past and Future," which soberly notes that woodland cover declined from about 50% two thousand years ago to 6% in 1970. This habitat loss has not been confined to woodlands, but has affected hedgerows, wetlands, and heath. Simms notes encouraging, recent conservation efforts.

The book is nicely illustrated, with range maps, black-and-white photographs of habitats and birds at the nest (by the renowned Eric Hosking), line drawings of displays, charts, and sonagraphs. The color plates, each of several species against a gray background, adequately show the diversity of size and plumage in the group, as well as the great plumage similarity of some species.

I greatly enjoyed this book. Simms covers his subject in detail, yet in a very accessible style. And his writing is often captivating: "To seek out the wetland warblers among the bending, hissing reeds and the clumps of thorny scrub, with the scent of damp rotting vegetation and black ooze in one's nostrils, is a rare experience indeed" (p. 33).—Charles P. Nicholson, Box 402, Norris, TN 37828.

Received 26 January 1989.

#### MINUTES OF THE FALL 1988 TOS BOARD OF DIRECTORS MEETING AND SYMPOSIUM

The Tennessee Ornithological Society and the Alabama Ornithological Society met jointly at the Brandon Springs Group Camp facility in the Land-Between-the-Lakes Recreation Area, Stewart County, Tennessee, on 18–20 November 1988. Ninety-five persons registered for the meeting. The meeting consisted of a TOS Board of Directors meeting, symposium and field trips.

#### BOARD OF DIRECTORS MEETING

The Board of Directors meeting was called to order by President Dan Gray on 19 November. It was determined that a quorum was present. Copies of the minutes of the April 1988 meeting were distributed and approved as printed.

There were no reports from the VICE PRESIDENTS for East, Middle and West Tennessee. The DIRECTORS-AT-LARGE for East and West Tennessee were absent and sent no reports; the Middle Tennessee DIRECTOR-AT-LARGE had no report.

SECRETARY John Robinson reported that he would be resigning as Secretary after the Fall 1988 meeting because of a job transfer to northwest Wisconsin.

TREASURER George Payne reported that from 15 April to 15 November 1988, income was \$3,170.80, expenses were \$2,610.04 and capital reserve was \$27,937.43. A detailed report was submitted.

CURATOR James Tanner was absent but President Gray reported that income from sale of back issues of *The Migrant* totalled \$10.00; there were no additions to the archives.

EDITOR David Pitts reported that the March and June 1988 issues of *The Migrant* would be mailed as early as next week. He also stated that Allen Press, which only has two of the four colors currently used on the cover of *The Migrant*, had recommended that the Society publish its journal with the same color (green) on the cover of all four issues each year. George Mayfield moved that we retain the four colors that we now have, providing that the cost is not prohibitive, and that the final decision on the use of new colors be left to the Editor. Paul Hamel seconded the motion and it was approved.

David Pitts also reported that David Vogt has accepted the position of compiler of the Highland Rim and Basin Region section of "The Season" report. The former compiler for this region, Steve Stedman, was recognized by David Pitts as having done an excellent job in preparing well-written reports.

David Pitts stated that *The Migrant* will be copyrighted. He further reported that the printing of a membership list is overdue, and that Allen Press had recommended it be printed separately from *The Migrant*. George Mayfield suggested that the membership list be printed as a separate pamphlet or flyer having the same dimensions of a *Migrant* issue. Ken Dubke and Fred Carney cautioned against unauthorized use of the membership list by outside individuals, though such use of copyrighted material would be illegal.

David Pitts also reported that: the weight of the paper used to publish *The Migrant* will be slightly lighter; Society members should note how long it takes for the June 1988 *Migrant* issue to arrive from Lawrence, Kansas; and three volunteers will be needed for on-going projects. These projects include the organization and compilation of the annual Autumn Hawk Counts; the Eastern Mountain Region of "The Season" report; and the Winter Roadside Raptor Surveys formerly coordinated by Steve Stedman.

NOMINATING Committee Chairperson Ron Hoff reported that a new slate of officers would be elected in the spring of 1989, and requested that nominations be made soon. He also extended notes of thanks to John Robinson and Steve Stedman for their work as Secretary and President, respectively. A motion by Audrey Hoff to have President Gray select a new Secretary at his discretion was seconded and approved.

FINANCE Committee Chairperson Richard Taylor was absent and there was no report.

BREEDING BIRD ATLAS Chairperson Charles Nicholson reported that Atlas work in certain parts of the state is irregular and/or insufficient, and that a sixth year of field work may be necessary if the problem is not corrected. The Committee is currently enrolling authors to prepare the species accounts for the upcoming Atlas book. The University of Tennessee Press has expressed interest in publishing the book, although no commitment has been made. A Prospectus is currently being prepared. Finances from two Atlas fund-raising bird seed sales totalled approximately \$300.00.

CERTIFICATION spokesperson Richard Knight reported that an addendum to the offical state list will appear in the March 1988 issue of *The Migrant*. He also presented an amended resolution (published in the *Tennessee Warbler*, Vol. 10, No. 2) which calls for several changes in the Committee, including the change of the Committee's name to the Tennessee Bird Records Committee. Charles Nicholson motioned to accept the resolution; this motion was seconded and approved.

CONSERVATION/EDUCATION Chairperson Ken Dubke reported that there were few additional reports of Common Barn-Owls resulting from the distribution of Barn-Owl posters across the state. The Chattanooga Chapter will be providing input to the management plan of the Prentice Cooper State Forest. A Resolution prepared by Chester McConnell of the Buffalo River TOS Chapter was presented. This resolution opposed additional channellization of the Obion/Forked Deer Rivers. A motion to accept this resolution was seconded and approved. Ken Dubke also reported that Gary Myers, Executive Director of the TWRA, is receptive to everything the TOS is doing.

The Tennessee Warbler EDITOR, the PATCHES AND DECALS Chairperson and the FALL SYMPOSIUM DIRECTOR were absent and there were no reports.

MEMBERSHIP Chairperson Audrey Hoff reported that 22 new memberships were received as a result of membership drive efforts earlier this year. A motion to allocate \$150.00 for the printing of more TOS brochures was seconded and approved. The brochures are to be distributed to each Chapter for local distribution to potential new members.

PUBLICITY Chairperson Lil Dubke suggested that each Chapter should have notices about its meetings and activities in the local newspapers. She also presented an example of how the activities of a TOS Chapter can be given "front page" treatment in a newspaper.

RARE BIRD ALERT Chairperson David Chaffin was absent, but John Robinson stated that he had sent Mr. Chaffin a letter informing him that Mike Bierly was willing to use his hotline tape at The Wood Thrush Shop to report rare birds that are called in. A motion to utilize Mike Bierly's bird alert tape to report rare birds and to cancel the search for funds to support a new bird alert system was seconded and approved.

TENNESSEE ENVIRONMENTAL COUNCIL representative Ken Dubke moved that our membership in the TEC be renewed for one more year at a cost of \$50.00. The motion was seconded and approved.

Under old business, George Payne presented a proposed 1989 budget by summarizing anticipated expenses and income; uncommitted funds were estimated at \$2,850.00.

Under New Business, President Gray reported that Cleo Mayfield volunteered to accept the position of Secretary for the Society. John Robinson moved that compilers of "The Season" reports who receive photographs (of rare and common birds alike) submit such photographs to the Chairperson of the Tennessee Bird Records Committee after the issue of *The Migrant* in which the photographed record appears is published. The motion was seconded and was amended such that the location of where the photographs are to be stored is to be presented to the Board of Directors at the spring meeting. This amended motion was seconded and approved.

Martha Waldron reported that John Robinson has written a book entitled "The Birds of Tennessee" for which a publisher is currently being sought. A brief outline of the book was given and Martha moved that \$1,000.00 be allocated to help defray the costs of publishing the book. During the ensuing discussion, some members expressed concern that many of the Directors had not had an opportunity to review the book. Support for the project was also expressed, and the motion was seconded and approved.

Robbie Hassler reported that she gave one of her hummingbird carvings to David Pitts, who obtained it by donating \$100.00 to the Breeding Bird Atlas project.

Charles Nicholson moved that the TOS allocate \$270.00 to reimburse regional coordinators of the Breeding Bird Atlas project and \$375.00 to pay for the printing and distribution of the Atlas newsletter. The motion was seconded and approved.

A motion to approve the budget presented earlier by George Payne was seconded and approved. Following this item of business, the meeting was adjourned.

#### SYMPOSIUM

The program of the 1988 TOS Symposium was arranged by David H. Synder. Seven speakers made presentations; their names and topics follow.

#### Friday evening (18 November)

EFFECTS OF NON-POINT-SOURCE CONTAMINANTS ON AQUATIC ECOSYSTEMS, by Mack Finley (Austin Peay State University).

#### Saturday afternoon (19 November)

WHERE DO CERULEAN WARBLERS CHOOSE TO BREED?, by Paul Hamel.

THE PAST, PRESENT, AND FUTURE STATUS OF SANDHILL CRANES IN TENNESSEE, by Ken Dubke.

BREEDING DISTRIBUTION OF CEDAR WAXWINGS IN TENNESSEE, by Charles P. Nicholson.

EASTERN BLUEBIRD EGGSHELL CHARACTERISTICS, by David Pitts.

THE TENNESSEE BREEDING BIRD ATLAS PROJECT AFTER THREE FIELD SEASONS: A PROGRESS REPORT, by Charles P. Nicholson.

BREEDING BIRD FORAY FOR HANCOCK AND HAWKINS COUNTIES, by Rick Knight.

#### Saturday evening

EXPEDITIONS TO SOUTH AMERICA, A BIRDER'S PARADISE, by Mark Robbins (The Academy of Natural Sciences of Philadelphia).

JOHN C. ROBINSON, Secretary

#### THE 1988 CHRISTMAS BIRD COUNT

#### DAMIEN J. SIMBECK

Twenty-four counts were conducted in Tennessee during the 1988–89 season, with 137 species tallied and 2 others seen during the count period. As in the past few years, the counts were affected by the mild weather prior to the count season. A cold front just before the first counts left temperatures near freezing, especially in east Tennessee, but seemed to have little effect on the birds. Very few northern birds, such as Pine Siskin and Evening Grosbeak, were seen this year. Temperatures again went up during the second week, and dropped only slightly after another weak front after Christmas. This front brought snow into north-west Tennessee, and could perhaps explain the presence of American Tree Sparrows on three southern and eastern counts.

Overall, most rarities fell into the "lingering species" category, with a count first *Selasphorus* hummingbird most notable. This brings the state list to about 214 species for Christmas Bird Counts. This bird was one of at least 6 individuals reported in the state this winter. The Chattanooga bird was reported as a Rufous, which it most likely was, but details did not indicate that photographs had confirmed the identification. Many pictures have been taken of this bird, so a positive identification should be made.

Other notable lingering birds included Great Egret (15th record), a count week Cattle Egret, Osprey, Merlin (10th and 11th), Peregrine Falcon, Forster's Tern (3rd), House Wren, Orange-crowned Warbler (13th), Indigo Bunting (2nd), Lincoln's Sparrow, and Northern Oriole (10th). Also notable were Tundra Swan (13th), Short-eared Owl in good numbers on two counts, and, for the first time on a Tennessee count since 1958, Smith's Longspur.

As usual, the counts are tabulated from west to east.

#### INFORMATION ON THE COUNTS

MEMPHIS—18 Dec; 0630–1700; clear; temp. 22–50°F; wind SW 10–15 mph; 41 observers in 8–14 parties plus 2 at feeders; 128 party hours (97 on foot, 31 by car) plus 2 at feeders; 203 party miles (75 on foot, 128 by car). Good details submitted for Indigo Bunting (ER) and Smith's Longspurs (JW). 90 species, 33,745 individuals. Trish Ardovina, Dianne Bean, Buzz Bean, Claude Brown, Carolyn Bullock, Fred Carney, Robert Casey, Ben Coffey, Lula Coffey, Mike Collins, Chris Creech, Dollyann Daily, Helen Dinkelspiel, Fred Dixon, Pat Eddy, Harold Elphingstone, Robert Endres, James Ferguson, William Fowler, Lynn Gardler, Murray Gardler, Joe Guinn, Van Harris, Ginger Ilardi, Robert Ilardi, Jeanne Kirkpatrick, Jo Levy, Selma Lewis, Dwight Miller, George Payne, Rob Peeples, Dick Preston, Martha Ramey, Ernie Restivo, Virginia Reynolds, Arlo Smith, Noreen Smith, Richard Taylor, Phil Waldon, Martha Waldron (compiler—1626 Yorkshire Dr., Memphis 38119), Jeff Wilson.

REELFOOT—17 Dec; 0720–1600; 3 observers in 2 parties; no information on party hours. 69 species, 201,710 individuals. Don Doster, Joe Robb, Glenn Stanley.

SAVANNAH—23 Dec; partly cloudy with AM fog; temp. 51–66°F; wind light and var.; 4 observers in 3 parties; 31 party hours (12.75 on foot, 18.25 by car) plus 2 owling; 285.8 party miles (11 on foot, 274.8 by car) plus 20.7 owling. Good details submitted for Short-eared Owls (JP/DS), excellent details for Cattle Egret including photo (DS). 78 species, 3,050 individuals. Johnny Parks, Damien Sim-

TABLE 1.

Species	MEMP	REEL	SAVA	CCWR	BUFF	OTO	NASH	DRR	HICK	MURF	LEBA
Common Loon	17		11	1	+:	-		-	38	-	-
Pied-billed Grebe	3	-	40	8	1	: S-	-	_	52	-	2
Horned Grebe	-	-67	10	-	-		3.5	_	185	200	-
D-cr. Cormorant	-	-0	-	E	-	0.00	-	_	1	-	
Great Blue Heron	28	9	10	133	9	23	9	5	44	3	6
Great Egret	-	-3	_	100	_	<u></u>	_	_	200	_	- 2
Cattle Egret	-	_	CW*	_	_	-	10	-	-	_	-
Bk-cr. Night-Heron	7.25	225	0.00	<u>38</u> ;		-	-	_	4	_	1
Tundra Swan	-2	-	-	-	-	-	-	-	_	-	-
Gr. Whfr. Goose	-	2	-	-	-	-	-	-		CW	-
Snow Goose	22s, 14b	90	-	2s	16	5s	-	-	-	-	-
Canada Goose	14	40.4M	24	13.5M	129	639	245	25	1,142	152	158
Wood Duck	33	1.015	CW	41	_	11	-	4	2	3	1
Green-winged Teal	-	150	-	175	1	1	1	-	-	-	-
Am. Black Duck	1	2,000	1	12.2M	_	45	11	-	-	_	7
Mallard	330	130.2M	3	39.1M	15	379	19	3	334	15	62
Northern Pintail	-	0-0	-	369	-	=	244	-	-	_	5
Blue-winged Teal	-	200	1	446	_	24	==	_	43	_	_
Northern Shoveler	1	20	122	4	_	14	-	_	223	2	12.0
Gadwall	30	16.1M	_	395	530	31	50	12	CW	5	_
American Wigeon	22	4,100	2	910	CW	15	28	100	3		10.25
Canvasback	_	-	ੁੰ	250		8	31	-		-	
Redhead	0.5	2_5	-	3	_	4	~		1		7
Ring-necked Duck	27	5,000	_	1,800	=	71	76	-	2	~	25
Greater Scaup	:#:3 :##:	5,000	_	-,000	-	100				100	
Lesser Scaup		47	CW	27	1	17	175	_	40	(70)	-
Common Goldeneye	28	77.7	3	3	i	2	11	-	1	1	-
Bufflehead		200	2	14		_	110	-	7	1	-
Hooded Merganser	_	60	2	133	CW	34		-		-	150
	-			CW		34	-	-	CW	-	
Comon Merganser		_	_		-	1	-	_		-	-
Rbr. Merganser	-	502	_	4	-		-	-	42	-	_
Ruddy Duck						2	-	_	24	_	-
duck sp.		-	_			-	-	-	24		_
Black Vulture	_	-		9	53	28	18	463	2	55	19
Turkey Vulture	_	-	4	4	69	-	1	_	220	7	3
Osprey	-	-			227		-	-	-0	-	$\rightarrow$
Bald Eagle		16	la	2a, 1i	-	-	-	75	7.5	35)	7.0
Northern Harrier	11	1	11	4	5	5	3	4	75.5	3	777
Sharp-shinned Hawk	7		1	3	1	1	4	2	1	1	177
Cooper's Hawk	2	2=	2	2	7	2	1	4	3	2	-
Accipiter sp.	-	$\mathcal{C}_{\mathcal{C}}}}}}}}}}$	-	1	1	-	1	-	7.3	$(x_{i+1}, x_{i+1}, \dots, x_{i+1})$	2
Red-shouldered Hawk	2	4	3	10	3	-	-	-	2	7	500
Red-tailed Hawk	61	14	9	36	25	22	40	14	19	14	10
Rough-legged Hawk	-	100	-	CW		2	-	_	*	-	-
Buteo sp.	-	-	-	-60		-	1	-		-	-
Golden Eagle	-		-	-0.05	-	-	_	_	-0.0	-	_
American Kestrel	34	14	2	15	23	24	40	10	34	57	9
Merlin	-	-	-	-	1*	-	_	_	1.	_	_
Peregrine Falcon	_	-	_		-	_	_	-	=""	_	
Ruffed Grouse	_	-	-	_	_	323	423	_	-	-	-
Wild Turkey	4	9 <u>25</u>	-	CW	43	-	2	-		-	_
Northern Bobwhite	17	-	10	13	1	23	25	-	20	1	7
Virginia Rail	-	-	-	-	-	1	-	-		-	-
Sora	-	-	-	-	-	3	-	-	-0	-	-
American Coot	46	50	269	6	1	-	-	-	247	-	7
Sandhill Crane	-	·	-	, <del>-</del> -	1*	-	-	-		_	-
Killdeer	173	13	3	29	53	8	39	6	100	97	19

TABLE 1. Extended.

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5	31	2	1	38	393	4	20	_	67	9	3	12	
241	14	9	133	436	1,237	60	87	14	225	506	114	140	
-	_	-	_	_	63	_	_	_	1	10	-	-	-
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TABLE 1. Continued.

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Common Snipe American Woodcock Bonaparte's Gull Ring-billed Gull Forster's Tern Rock Dove Mourning Dove Common Barn-Owl E. Screech-Owl Great Horned Owl Barred Owl Short-eared Owl Selasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-hel. Woodpecker Powny Woodpecker Hairy Woodpecker Northern Flicker Northern Flicker Northern Flicker Flieated Woodpecker Eastern Phoebe Horned Lark Blue Jay American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch Brown-Geoper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	6 4 1 1 1 1 225 2 2 - - - - - - - - - - - - - - - -		1 124 25	24 1 215 260 — 25 173 — 1 3 3 2 49 7 33 11 38 12 CW	8 99 215 - 4 10 3 - 19 13 53 15 38 19 43 26 9 118	1 2 - 3 13 - 19 146 - 7 3 4 - 13 8 32 6 42 6 15 6 1 110	15 — 4 — 138 363 — 5 7 1 — 18 3 121 35 83 19 68 23 2	8	13 1 	1 - - 46 89 - 2 - 2 - 7 7 7 9 2 16 6	
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Herring Gull Forster's Tern Rock Dove Gownfong Dove Common Barn-Owl E. Screech-Owl Great Horned Owl Barred Owl Short-eared Owl Selasphorus sp. Belted Kingfisher Red-bel. Woodpecker Ped-bel. Sapsucker Downy Woodpecker Hairy Woodpecker Horthem Flicker Plieated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tufted Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch Brow	2 - 441	- 2 11 - - 1 - 2 20 23 1 15 3 18 4 - 9 17 41	25 	25 173 1 3 3 3 - 23 2 49 7 33 11 38 12 CW	99 215 4 10 3 - 19 13 53 15 38 19 43 26 9 118	13 — 19 146 — 7 3 4 — — 13 8 32 6 42 6 15 6 110	138 363 - 5 7 1 - 18 3 121 35 83 19 68 23 2		4 375 491 4 2 4 - 26 1 24 15 45 5 44 5	-46 89 2 2 7 7 7 9 2 16 1	39 46 1 3 1 5 - 5 - 6 2 2 10 3 7
Forster's Tern Rock Dove 6 Mourning Dove 3 Common Barn-Owl E. Screech-Owl Great Horned Owl Barred Owl Sclasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Hairy Woodpecker Hairy Woodpecker Hairy Woodpecker Horned Lark Blue Jay 3 American Crow 2 Common Raven Carolina Chicakdee Tufted Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch Brown-d. Nuthatch Brown-d. Nuthatch Brown-d. Nuthatch Brown-Greeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	3 2 4 10 34 126 29 89 11 164 26 26 235 1553 1606 —	2 11 - - 1 - 2 20 23 1 15 3 18 4 - 9 17 41	120 123 -6 2 3 10* -3 6 15 7 9 1 26 6	25 173 - 1 3 3 3 - 23 2 49 7 33 11 38 12 CW	99 215 4 10 3 - 19 13 53 15 38 19 43 26 9 118	19 146 - 7 3 4 - 13 8 32 6 42 6 15 6 1 110	138 363 5 7 1 - 18 3 121 35 83 19 68 23 2			-46 89 2 2 7 7 7 9 2 16 1	39 46 1 3 1 5 - 5 - 6 2 2 10 3 7
Rock Dove 6 Mourning Dove 3 Common Barn-Owl E. Screech-Owl Great Horned Owl Barred Owl Short-eared Owl Selasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Downy Woodpecker Hairy Woodpecker Hairy Woodpecker Hairy Woodpecker Hairy Woodpecker Hairy Woodpecker Bestern Phoebe Horned Lark 2 Blue Jay 3 American Crow 2 Common Raven Carolina Chicakdee 2 Tufted Titmouse 1 Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	3 2 4 — — — — — — — — — — — — — — — — — —	2 11 - - 1 - 2 20 23 1 15 3 18 4 - 9 17 41	120 123 - 6 2 3 10* - 3 6 15 7 9 1 26 6	25 173 - 1 3 3 - - 23 2 49 7 7 33 11 38 12 CW	99 215 - 4 10 3 - 19 13 53 15 38 19 43 26 9	19 146 - 7 3 4 - 13 8 32 6 42 6 15 6 1	138 363 - 5 7 1 - - 18 3 121 35 83 19 68 23 2	24 63 - 7 4 - - 1 13 21 13 2 8 4 1	491 - 4 2 4 - 26 1 24 15 45 5 44 5	46 89 - - 2 - - 2 - 7 7 7 9 2 16 - 1	39 46 1 3 1 5 - 5 - 6 2 10 3 7
Mourning Dove Common Barn-Owl E. Sereech-Owl Great Horned Owl Barred Owl Short-eared Owl Short-eared Owl Sclasphorus sp. Belted Kingfisher Red-hel. Woodpecker Red-bel. Woodpecker Owny Woodpecker Hairy Woodpecker Hairy Woodpecker Hairy Woodpecker Eastern Phoebe Horned Lark Blue Jay American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	328 - 3 2 4 - 10 34 226 229 889 111 664 26 - 25 25 25 26 27 28 29 20 20 20 20 20 20 20 20 20 20	11 — — — 1 — — 2 20 23 1 15 3 18 4 — 9 17 41	123 -6 2 3 10* - 3 6 15 7 9 1 26 6 - 101 50	173 - 1 3 3 - - 23 2 49 7 7 33 11 38 12 CW	215 - 4 10 3 - 19 13 53 15 38 19 43 26 9 118	146 	363 - 5 7 1 - 18 3 121 35 83 19 68 23 2	63 -7 4 - - 1 13 21 13 2 8 4 1	491 - 4 2 4 - 26 1 24 15 45 5 44 5	89 2 2 - 7 7 7 9 2 16 - 1	46 1 3 1 5 5 - 5 - 6 2 10 3 7 1 -
Common Barn-Owl E. Screech-Owl Great Horned Owl Barred Owl Short-eared Owl Short-eared Owl Short-eared Owl Short-eared Owl Short-eared Owl Sclasphorus sp. Belted Kingfisher Red-hel. Woodpecker Red-bel. Woodpecker Pichel. Sapsucker Downy Woodpecker Hairy Woodpecker Horned Lark Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch	3 2 4 4 	- - 1 - - 2 20 23 1 15 3 18 4 - 9	-6 2 3 10* - 3 6 15 7 9 1 26 6 - 101 50	1 3 3 - 23 2 49 7 333 11 38 8 12 CW - 146	- 4 10 3  19 13 53 15 38 19 43 26 9	-7 3 413 8 32 6 42 6 15 6 1 110	-5 7 1 - 18 3 121 35 83 19 68 23 2	- 7 4 - - 1 13 21 13 2 8 4 1	- 4 2 4 - 26 1 24 15 45 5 44 5	- - 2 - - 2 - 7 7 7 9 2 16	1 3 1 5 - 5 - 6 2 10 3 7 1
E. Screech-Owl Great Horned Owl Barred Owl Selasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Hairy Woodpecker Horned Woodpecker Horned Lark Blue Jay American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	2 4 - 10 34 26 29 89 11 64 26 - 235 353 206 -	- 2 20 23 1 15 3 18 4 - 9 17	2 3 10* - 3 6 15 7 9 1 26 6 - 101 50	3 3 - - 23 2 49 7 33 11 38 12 CW	10 3 - 19 13 53 15 38 19 43 26 9 118	3 4 - 13 8 32 6 42 6 15 6 1	7 1 18 3 121 35 83 19 68 23 2	4 - - - 1 13 21 13 2 8 4 1	2 4 - - 26 1 24 15 45 5 44 5	- 2 - - 2 - 7 7 7 9 2 16	3 1 5 - 5 - 6 2 10 3 7 1
Great Horned Owl Barred Owl Short-eared Owl Sclasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Pel-bel. Sapsucker Downy Woodpecker Hairy Woodpecker Horned Lark  2 Blue Jay 3 American Crow Common Raven Common Raven Carolina Chicakdee Tufted Titmouse Red-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-d.	2 4 - 10 34 26 29 89 11 64 26 - 235 353 206 -	- 2 20 23 1 15 3 18 4 - 9 17	2 3 10* - 3 6 15 7 9 1 26 6 - 101 50	3 3 - - 23 2 49 7 33 11 38 12 CW	10 3 - 19 13 53 15 38 19 43 26 9 118	3 4 - 13 8 32 6 42 6 15 6 1	7 1 18 3 121 35 83 19 68 23 2	4 - - - 1 13 21 13 2 8 4 1	2 4 - - 26 1 24 15 45 5 44 5	2 - - 2 - 7 7 7 9 2 16 - 1	1 5 - 5 - 6 2 10 3 7 1
Barred Owl Short-eared Owl Selasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Hairy Woodpecker Horthern Flicker Pileated Woodpecker Horned Lark Blue Jay American Crow Common Raven Carolina Chicakdee Tufled Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	2 4 - 10 34 26 29 89 11 64 26 - 235 353 206 -	- 2 20 23 1 15 3 18 4 - 9 17	3 10* - 3 6 15 7 9 1 26 6 - 101 50	3 - - 23 2 49 7 33 11 38 12 CW	3 - - 19 13 53 15 38 19 43 26 9	4 - - 13 8 32 6 42 6 15 6 1	1 - - 18 3 121 35 83 19 68 23 2	- - 1 1 13 21 13 2 8 4 1	4 - - 26 1 24 15 45 5 44 5	- - 2 - 7 7 9 2 16 -	5 - 5 - 6 2 10 3 7 1
Short-eared Owl Selasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Powny Woodpecker Hairy Woodpecker Hairy Woodpecker Hairy Woodpecker Hairy Woodpecker Flicker Flicker Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	4 - 10 34 26 29 89 11 64 26 - 235 353 206 -	- 2 20 23 1 15 3 18 4 - 9 17	10* - 3 6 15 7 9 1 26 6 - 101 50	23 2 49 7 33 11 38 12 CW		- 13 8 32 6 42 6 15 6 1	18 3 121 35 83 19 68 23 2	- 1 13 21 13 2 8 4 1	26 1 24 15 45 5 44 5	- 2 - 7 7 9 2 16 -	- 5 - 6 2 10 3 7 1
Selasphorus sp. Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Pel-bel. Sapsucker Downy Woodpecker Hairy Woodpecker Horthern Flicker Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch	10 34 26 29 89 11 64 26 - 235 553	2 20 23 1 15 3 18 4 - 9 17 41	3 6 15 7 9 1 26 6 -	- 23 2 49 7 33 11 38 12 CW - 146	- 19 13 53 15 38 19 43 26 9	13 8 32 6 42 6 15 6 1	18 3 121 35 83 19 68 23 2	- 1 13 21 13 2 8 4 1	26 1 24 15 45 5 44 5	- 2 - 7 7 9 2 16 - 1	- 5 - 6 2 10 3 7 1
Belted Kingfisher Red-hd. Woodpecker Red-bel. Woodpecker Yelbel. Sapsucker Downy Woodpecker Hairy Woodpecker Hairy Woodpecker Horhern Flicker Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay American Crow Common Raven Carolina Chicakdee Tuffied Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	34 226 29 89 11 64 26 — 235 353 206	2 20 23 1 15 3 18 4 — 9 17 41	3 6 15 7 9 1 26 6 — 101 50	23 2 49 7 33 11 38 12 CW –	19 13 53 15 38 19 43 26 9	13 8 32 6 42 6 15 6 1	18 3 121 35 83 19 68 23 2	1 13 21 13 2 8 4 1	26 1 24 15 45 5 44 5	2 - 7 7 9 2 16 - 1	5 - 6 2 10 3 7 1
Red-hd. Woodpecker Red-bel. Woodpecker Yelbel. Sapsucker Downy Woodpecker Hairy Woodpecker Hairy Woodpecker Northern Flicker Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay American Crow Common Raven Carolina Chicakdee Tufled Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown-d. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	34 226 29 89 11 64 26 — 235 353 206	20 23 1 15 3 18 4 - 9 17 41	6 15 7 9 1 26 6 — 101 50	2 49 7 33 11 38 12 CW - 146	13 53 15 38 19 43 26 9	8 32 6 42 6 15 6 1	3 121 35 83 19 68 23 2	1 13 21 13 2 8 4	1 24 15 45 5 44 5	7 7 9 2 16 —	- 6 2 10 3 7 1
Red-bel. Woodpecker Yelbel. Sapsucker Downy Woodpecker Hairy Woodpecker Northern Flicker Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	26 29 89 11 64 26 — 235 353 206	23 1 15 3 18 4 - 9 17 41	15 7 9 1 26 6 - 101 50	49 7 33 11 38 12 CW - 146	53 15 38 19 43 26 9	32 6 42 6 15 6 1	121 35 83 19 68 23 2	13 21 13 2 8 4	24 15 45 5 44 5	7 9 2 16 —	6 2 10 3 7 1
Yelbel. Sapsucker Downy Woodpecker Hairy Woodpecker Hairy Woodpecker Flicker Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	29 89 11 64 26 - 235 353 206 -	1 15 3 18 4 - 9 17 41	7 9 1 26 6 - 101 50	7 33 11 38 12 CW - 146	15 38 19 43 26 9	6 42 6 15 6 1	35 83 19 68 23 2	21 13 2 8 4 1	15 45 5 44 5	7 9 2 16 —	2 10 3 7 1
Downy Woodpecker Hairy Woodpecker Northern Flicker Polleated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tufted Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	89 11 64 26 - 235 353 206 -	15 3 18 4 - 9 17 41	9 1 26 6 - 101 50	33 11 38 12 CW - 146	38 19 43 26 9	42 6 15 6 1	83 19 68 23 2	13 2 8 4 1	45 5 44 5	9 2 16 - 1	10 3 7 1
Hairy Woodpecker Northern Flicker Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tufted Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	11 64 26 - 235 353 206 -	3 18 4 - 9 17 41	1 26 6 - 101 50	11 38 12 CW - 146	19 43 26 9 118	6 15 6 1 110	19 68 23 2	2 8 4 1	5 44 5 —	16 - 1	3 7 1
Northern Flicker Pileated Woodpecker Eastern Phoebe Horned Lark 2 Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tuffed Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	64 26 - 235 353 206 -	18 4 - 9 17 41	26 6 - 101 50	38 12 CW - 146	43 26 9 118	15 6 1 110	68 23 2	8 4 1	44 5 —	16 - 1	7 1 -
Pileated Woodpecker Eastern Phoebe Horned Lark Blue Jay 3 American Crow Common Raven Carolina Chicakdee Tufted Titmouse 1 Red-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	26  235 353 206 	4 - 9 17 41	6  101 50	12 CW - 146	26 9 118	6 1 110	23 2	4 1	5	-	1
Eastern Phoebe Horned Lark 2 Blue Jay 3 American Crow 2 Common Raven Carolina Chicakdee 2 Tuffed Titmouse 1 Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	235 153 206	9 17 41	101 50	CW - 146	9 118	110	2	1	100	1	-
Horned Lark 2 Blue Jay 3 American Crow 2 Common Raven Carolina Chicakdee 2 Tufted Titmouse 1 Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	235 153 206 —	17 41	101 50	146	118	110					7
Blue Jay 3 American Crow 2 Common Raven Carolina Chicakdee 2 Tufled Titmouse 1 Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	153 206 —	17 41	50	146			8	41			-
American Crow Common Raven Carolina Chicakdee 2 Tufled Titmouse Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet	206	41			128		2000				GTT
Common Raven Carolina Chicakdee 2 Tufted Titmouse 1 Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	-		171			48	206	23	108	35	25
Carolina Chicakdee 2 Tufted Titmouse 1 Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet				117	179	54	27.5M	34	253	211	37
Tufted Titmouse 1 Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	216		-		1	-		73	100	7.5	
Red-br. Nuthatch White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren House Wren Winter Wren Golden-cr. Kinglet		57	40	95	168	93	352	56	125	40	20
White-br. Nuthatch Brown-hd. Nuthatch Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	24	22	20	70	139	72	231	36	66	29	19
Brown-hd. Nuthatch Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	_	_	-	1	-	I	-	-	-	-	-
Brown Creeper Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	2	2	6	37	77	6	44	2	-	_	3
Carolina Wren 1 House Wren Winter Wren Golden-cr. Kinglet	-	-	_	-	_	-	-		_	-	-
House Wren Winter Wren Golden-cr. Kinglet	10	1	2	3	11	1	11	4	6		_
Winter Wren Golden-er. Kinglet	50	11	25	45	19	31	98	9	63	12	3
Golden-cr. Kinglet	.4	_	-	1*		-	-	_	_	_	22.0
사이 내가 있다고 하고 있는 것이 없는 것이다.	11	2	1	3	5	4	-	1	2	-	-
Kuby-cr. Kinglet	49	3	9	15	27	5	33	10	17	2	4
	54	3	24	3	29		2	3	5		3
	36	1	57	105	173	87 10	161	116	75 12	128	68
	13	31	13 37		81		13	18 870		1 441	4 204
	143	31	37	78	81	1,900	25.9M	8/11	8,761	1,661	204
Northern Mocking-		16	10	31		20	202	21	102	26	
	14	4	10	21	57	30	202	21	103	36	10
	22	4	T.	5	5	1	5		3		1
77.00	20	-	123	1 53	1	45	197	104	646	50	151
	08	1			226		2.7		1.11		151
	24	5	172	254	520	6	29	9	0 251	6 000	1,556
European Starling 3,3	14	133	172	254	529	10M	9,045	175	8,351	6,000	1,330
Orange-cr. Warbler	0.2	-	120	116	44	21	101	-	140	20	20
	192	53	120	115 CW	200	21	101	67	140	39	25
	12	-	6		1	00	406		196	77	32
	266	90	60	270	160	89	405	46		72	32
Indigo Bunting	1*	1	12	53	-	47	92	7.5	76	-	-
Rufous-s. Towhee Am, Tree Sparrow	31				52			25	36	15	6

Table 1. Extended.

								S)					
нон	PICK	COOK	NICK	СНАТ	HIWA	NORR	KNOX	GSMN	GREE	KING	ELIZ	BRIS	ROAN
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±3	_	= 2	8	38	41			_	_	5	6	=	=
3	_	-	<u></u>	50	208	=	86	=		3	- - - - 176	=	
12	-	-	226	880	343	6	1,020	-	-	157	-	18	_
17	13	_	13	25	1	=	2 <u></u>	-	-		-	_	-
- 40	-	- - 67	13 - 125	431	2*	88	27	- - 33		- 1,217		-	<b></b>
172	117	255	239	304	37 418	122	718 879	434	252	300	176	66 252	33
-			-	304			-	434	333	- 300			10
- - 1	cw - - - -	_	13	- 5 7	7	- 6	- 5	_ 3	2	1	12	4	7
1	CW	-	7	7	7	- 3	7	1	- 1	5	1	5	1
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9	_	- - 2	38	31	34	4	38	- 0	-4	32	4	-	5
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17	6	27	43	44	55	15	61	16	55	15	10	12	1
2	4	5	31	18	25	10	24	8	8	4	13	2	1
13 4	11	20	50	38	62	14	55	27	47	36	54	17	15
25	2 18	3 13	3 73	11 59	20 76	6 14	11 42	20 17	5 18	10 27	4	1	1
4	10	8	29	7	21	5	15	16	14	24	16 12	- 7	1
	3	3	9	2	18	1	8	6	3	1	6	2	1
_ _ 155	-	=	39	121	273	-	-	-	15	-	-		-
155	96	166	201	121	273	51	340	128	258	157	200	117	36
409	60	284	1,395	622	820	240	1,051	117	941	279	675	533	221
14	9	52	1,395	224	199	100	339	6 204*	208	231	6 124	116	6 70
20	10	37	169	82	132	40	165	75	136	152	81	97	30
1	7	_	_	-	1	_		9	1	3	1	200	CW
7	7	21	28	29	19	38	27	37	22	43	18	18	20
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7	-	14	90	11 51	24 97	33	10 123	16 46	84	36	31	23	21
			-	-		-	123		-	-	- 51		-
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5	-	3	104	49	110	77	117	162	26	5	35	27	18
- 80	56	88	76 189	25 133	58	2	18	13	6	1	3	2	
2	1	8	32	26	253 50	91 17	171 20	39 6	33 1	5	67	73 1	15 2
70	63	328	79.6M	353	756	51	648	114	113	152	528	82	1
89	7	34	69	87	73	14	212	16	73	47	27	70	7
6	1	3	17	11	15	2	7		2	1		- 199 5	
37	297	248	553	607	26 1,406	128	1 234	163	53	120	108	100	-
10		9	1	1	18	120	4	103	53 5		108	199	=
1,144	64	10.4M	942	2,106 1*	3,764	654	14M	273	2,990	1,959	1,116	1,478	_ 125
4	21	25	167	171	462	229	267	18	77	- 79	37	5	-
198	-	-	6	26	25	-	1	2	2	-	200	_	
95 —	13	112	213	234	163	87	273	66	164	151	120	98	41
6	_	19	79	80	57	18	42	15	7	8	12	- 2	6
	-	-	1*	1	1*	_	-	-	=	_	-	_	_

TABLE 1. Continued.

Species	MEMP	REEL	SAVA	CCWR	BUFF	COLU	NASH	DRR	HICK	MURF	LEBA
Chipping Sparrow	-	- C C	-	_			-	-	-6.5	-	Ĭ
Field Sparrow	39	4	45	39	198	76	44	43	44	27	9
Vesper Sparrow	2	=	2	-63	2	-	1*	-	-	-	-
Savannah Sparrow	71	-	132	8	30	-	15	1	2	-	-
LeConte's Sparrow	-	-	10		-	-	-	_	-	_	-
Fox Sparrow	57	-	11	11	5	_	1	20	7	1	_
Song Sparrow	234	7	107	198	177	60	129	34	416	10	13
Lincoln's Sparrow	-	-2	-	_	1.	-	100	_	_	_	_
Swamp Sparrow	128	4	27	123	23	57	4	13	73	6	1
White-th. Sparrow	1,086	45	138	305	293	80	483	16	373	14	22
White-cr. Sparrow	54	-	8	10	27	34	51	15	20	10	2
Dark-eyed Junco	241	30	118	304	474	60	140	116	138	46	22
Lapland Longspur	3	1.00	-		-		-	-		-	-
Smith's Longspur	2*		-		-	-	-	-	-	-	-
Red-wng. Blackbird	11.7M	104	200	13.8M	100	700	116	35	1,226	600	133
Eastern Meadowlark	243	26	123	137	135	40	157	31	30	7.2	2
Rusty Blackbird	184	25	50	3	1	-	-	-	35	180	-
Brewer's Blackbird	1	-	CW	-	1.3	-		-		_	-
Common Grackle	6.029	535	-	664	43	5,000	561	250	21	7,000	13
Brown-hd. Cowbird	1.012	-	_	436	343	3,000	95	38	805	153	29
blackbird sp.	-	-	_	500	_		75	_	30	-	_
Northern Oriole		-	-	_	-	-	-	_	_	-	_
Purple Finch	13	-	-	13	64	45	25	23	2	16	I
House Finch	49	-	-	7.3	11	124	186	58	147	90	149
Red Crossbill	-		-	-	-	-		-	-	-	-
Pine Siskin	1		-	2	-	1	_	-	-	-	-
American Goldfinch	89	1	47	225	234	90	157	44	46	39	22
Evening Grosbeak	8	-	-		2	-	-	-		-	-
House Sparrow	596	93	49	50	375	58	59	75	68	74	22
Total Species	90	69	78	94	82	86	76	61	81	58	65

M = 1.000. • See information on the counts. Underlined numbers tie or exceed record highs. CW = observed during count week.

beck (compiler - Dept. of Zoology, University of Tennessee, Knoxville 37996), Chris Sloan, Ann Tarbell.

CROSS CREEKS NWR – 18 Dec; 0500–1700; clear; temp. 16–47°F; wind SW 5–15 mph; 10 observers in 6 parties plus 2 at feeders; 50 party hours (17 on foot, 32 by car, 1 by boat) plus 8 at feeders, 3 owling; 350.5 party miles (20 on foot, 327.5 by car, 3 by boat) plus 7 owling. Good details submitted for House Wren (JD, CS). 94 species, 88,564 individuals. Donald Blunk (compiler—Rt. 2, Box 791C, Dover 37058), Gayle Boone, Bill Cowart, Camille Crenshaw, Jerry Drewry, Vicki Grafe, Annie Heilman, Carl Mowery, Chris Sloan, Michael Todd, Wallace Todd, Ellen Walker.

BUFFALO RIVER – 29 Dec; 0330–0530, 0615–1715; clear to partly cloudy; temp. 22–41°F; wind N 0–5 mph; 14 observers in 5 parties plus 1 at feeders; 39 party hours (17.25 on foot, 21.75 by car) plus 4 at feeders, 2 owling; 189.8 party miles (15 on foot, 174.8 by car) plus 17.7 owling. Good details submitted for Sandhill Crane (DI, DoS), Merlin (MB, RS, SS, DaS, CS), American Tree Sparrow (DaS, CS), and Lincoln's Sparrow (DaS). 82 species, 5,827 individuals. Andy Augustin, Michael Beuerlein, David Ihrie, Chester McConnell, Dot McConnell, Royce Neidert, Jane Newell, Ned Piper, Rebecca Satterfield, Steve Satterfield,

TABLE 1. Extended.

нісн	PICK	COOK	NICK	CHAT	HIWA	NORR	KNOX	GSMNP	GREE	KING	ELIZ	BRIS	ROAN
10	-	2	1	29	4		-	1	3 <del>-</del>	18	-	-	
32	13	35	166	136	191	52	114	9	52	32	12	32	29
-	-	100	2	4	2	-	_		_	_	_	-	
-	-	-	25	74	39	2	-1	-	-	_	_	_	27
_	-	_	-	1*			-	_		200	-	232	2.0
_	_	6	9	9	3	3	_		_	1	1	-	1
29	17	115	360	296	940	73	348	104	114	50	94	41	129
250	_	-	-	_	1*	-	- 150	-	200	-	1	-	100
-	1	2	122	59	189	7	43	4	2	12	3	1	
26	18	108	481	439	1,131	164	839	142	202	42	182	106	4
S-773	-	1.00	1	3	20	10	14	-	24	-	2	4	_
77	62	39	177	225	467	92	104	63	68	68	328	132	11
: <del>27</del>	1	· <del></del>	1,	-	-	-	_	-	-	_	-	-	-
	-	-	-	-	-	-	-	-	-	1	-	-	-
1	-	10	216	3,300	1,083	-	220	_	266	2	-	-	-
64	_ 5	72	56	182	127	1	25	17	182	26	28	8	-
-	-	Ī	28	20	111	_		_	12	15	_	-20	_
-	-	122	-	_	_	-	-			_	_	_	-
11.3M	1,000	5,674	1,837	39	4,787	2	100	_	161	8	7.2	-22	_
5	_	8	81	128	35		1	_	-	_	6	-	_
2	_	30M	32	_	_	_	_	-		-	-	7.5	_
-22	_	_	-	_	_	-	1*	-	-	-	-	-	_
-	13	48	10	6	59	6	19	-	7	113	1	20	_
24	43	146	72	266	201	51	305	30	619	223	140	268	- 1
-	-	-	-	-	-	-	-	11	=		-	-	-
1	-	100	-	10	11	-	-	-	-	2	1	_	-
61	58	51	320	266	390	121	203	82	102	270	136	66	1
-	-	-	-	1	-	_	-	-	-	-	3-2	100	
139	25	45	41	40	51	18	50	28	81	137	117	40	119
72	55	68	90	102	107	62	80	55	67	72	66	66	4

Donette Sellars, Damien Simbeck (co-compiler), Don Simbeck (co-compiler—117 2nd Ave. N, Loretto 38469) Chris Sloan, Wylie Willis.

COLUMBIA—26 Dec; 0600–1700; clear to partly cloudy; temp. 32–60°F; wind AM: SE 0–3 mph, PM: S 8–12 mph; 6 observers in 5 parties plus 3 at feeders; 31.5 party hours (18.5 on foot, 13 by car) plus 12 at feeders, 3 owling; 266 party miles (12 on foot, 254 by car) plus 25 owling. Also reported: 1 Mallard X Gadwall, good details (RF, GM, MM). 86 species, 23,842 individuals. Nancy Byer, Richard Figari, Daniel Gray, Jr., William Jernigan, Cleo Mayfield, George Mayfield (compiler—999 Sunnyside Dr., Columbia 38401), Mark Mayfield, Jane Oakes, Allen Pressnell.

NASHVILLE—26 Dec; 0630–1730; clear to partly cloudy; temp. 30–56°F; wind SE 0–5 mph; 33 observers in 9–11 parties plus 4 at feeders; 90.5 party hours (44.75 on foot, 45.5 by car, 0.25 by ferry) plus 10 at feeders, 3 owling; 544 party miles (38 on foot, 505.5 by car, 0.5 by ferry) plus 2 owling. Fair details submitted for Vesper Sparrow (RB, JMc). 76 species, 68,820 individuals. Janet Alexander, Robert Brayden, Elizabeth Collins, Connie Collopy, Richard Conners, Kinian Cosner, William Cowart, Annella Creech, Fairman Cumming, Chris DeBold, Rowan DeBold, Gerald Drewry, Milbrey Dugger, Lucy Finch, Margaret Finch,

John Fort, Katherine Goodpasture, Paul Hamel, Barbara Harris, Robert Hatcher, Lee Kramer, Galen Lenhert, Jane Maynard, Joe McLaughlin, Marjorie Patrick, Oscar Patrick, Virginia Price, Chistopher Sloan, Ann Tarbell (compiler—6033 Sherwood Dr., Nashville 37215), Edwin Toone III, Edwin Toone IV, David Vogt, Kenneth Walkup, Miriam Weinstein, Lamar Witmer, Betty Worden.

DUCK RIVER RESERVOIR—17 Dec; 0400–1800; partly cloudy; temp. 20–48°F; wind W 5–25 mph; 6 observers in 3 parties; 26 partly hours (17 on foot, 9 by car) plus 3 owling; 191 partly miles (6 on foot, 185 by car) plus 7.5 owling. 61 species, 3,159 individuals. Brad Hammond, Bill Jernigan, Alyn Lay, George Mayfield, Allen Pressnell (compiler—Rt. 6, Box 274G, Columbia 38401), Dianne Pressnell.

HICKORY-PRIEST—2 Jan; 0515–1715; cloudy; temp. 39–42°F; wind NNW 10 mph; 24 observers in 8 parties plus 1 at feeders; 65.5 party hours (33.5 on foot, 32 by car) plus 6 at feeders, 2 owling; 323 party miles (30 on foot, 293 by car) plus 23 owling. Good details submitted for Rough-legged Hawk (DV) and Merlin (CC, JD, BE, CS). 81 species, 26,745 individuals. Frances Abernathy, Jan Alexander, Linda Anderson, Kinian Cosner, Camille Crenshaw, Chris DeBold, Rowan DeBold, Jerry Drewry (compiler—444 Dowdy Dr., Antioch 37013), Bob English, Katherine Goodpasture, Louis Jackson, Daniel Jacobson, Lee Kramer, Heather Leverette, Richard Newton, Johnny Parks, Betty Richards, Christopher Sloan, Joe Stone, Ann Tarbell, Mike Todd, Edwin Toone III, Julia Toone, David Vogt.

MURFREESBORO—7 Jan; 0630–1630; partly cloudy; temp. 40–71°F; wind SW 15–17 mph; 15 observers in 7 parties; 26 party hours (3 on foot, 23 by car) plus 4 at feeders; 272.6 party miles (3 on foot, 269.6 by car). 58 species, 17,071 individuals. Bill Erwin, Lou Erwin, C. E. Greever, Anne Hettish (compiler—1018 Lawndale Dr., Murfreesboro 37129), Bob Hettish, John Hooper, Richard Hunter, Wilma Hunter, David McCarroll, Ruth McMillan, Gene Odom, Ruth Odom, John Patton, Melissa Tucker, Terry Witt.

LEBANON—17 Dec; 0545–1600; partly cloudy; temp. 28–38°F; wind NW 10–20 mph; 8 observers in 4 parties plus 1 at feeders; 37 party hours (2 on foot, 35 by car) plus 1 at feeders, 1 owling; 66.5 party miles (3.5 on foot, 63 by car) plus 10 owling. 65 species, 3,278 individuals. Earline Berry, V. C. Berry, Tim Gorman, Ruth McMillan (compiler—Rt. 2, Box 141, Lascassas 37085), Kay Norris, Ray Pope, Ann Reese, Ramona See.

HIGHLAND RIM—31 Dec; 0600–1800; cloudy with AM fog, PM rain; temp. 40–51°F; wind calm; 19 observers in 9 parties; 36 party hours (5 on foot, 31 by car) plus 0.5 owling; 325 party miles (3 on foot, 322 by car) plus 0.5 owling. 72 species, 15,514 individuals. John Bruner, Lois Bruner, Marguerite Hernandez, Don Herrig, Keith Herrig, Ruth Luckado, Hose Martinez, Nicky Medley, Philip Medley (compiler—Rt. 2, Box 173B, Hillsboro 37342), Erma Rogers, Mary Shelton, Quincy Styke, Carol West, Gene West, Lillie Willerd, Evelyn Wilson, Grady York, Willa York.

PICKETT CO.—30 Dec; 0700–1620; partly to mostly cloudy with light PM rain; temp. 32–38°F; wind W 5–10 mph; 2 observers in 1 party; 9.25 party hours (all by car); 49.8 party miles (all by car). 55 species, 2,821 individuals. Dave Hassler, Robbie Hassler (compiler—Rt. 1, Box 164A, Byrdstown 38549).

COOKEVILLE—16 Dec; 0515–1630; partly cloudy to clear; temp. 20–32°F; wind NW 5–10 mph; 11 observers in 5 parties; 38.5 partly hours (7.25 on foot, 31.25 by car) plus 2 owling; 272.3 partly miles (6.5 on foot, 265.8 by car) plus 5 owling. Good details submitted for Greater Scaup (SS, present since 15 Nov) and Sandhill Crane (RH/SS/DHu, KH, WJ). 68 species, 48,998 individuals. Jean

Cashion, Richard Cashion, Dave Hassler, Robbie Hassler, David Hume, Kay Hume, William Jones, Graham Kash, Richard Simmers (compiler—Rt. 6, Box 170, Cookeville 38501), Stephen Stedman, Joe Wahl.

NICKAJACK—31 Dec; 0450–1700; AM cloudy with heavy fog, PM fog and heavy rain; temp. 41–47°F; wind S 0–10 mph; 26 observers in 9 parties; 78.25 party hours (40.5 on foot, 37.75 by car) plus 11.5 owling; 332.5 party miles (25.5 on foot, 307 by car) plus 85 owling. Fair details submitted for Peregrine Falcon (JH, TP). Good details submitted for American Tree Sparrow (JD). 90 species, 99,865 individuals. Benton Basham, Nelson Bennett, Del Blum, Katherine Boyles, Kenton Dickerson, Jerry Drewry, Gary Hartman, John Henderson, Daniel Jacobson, Kathy Jacobson, Lenny Kafka, Starr Klein, Jonnie Sue Lyons, Johnny Parks (compiler—1610 E. 17th St., Chattanooga 37404), Tom Patton, Kent Pennington, Peter Robinson, Mark Rothberger, Robin Rudd, Rebecca Satterfield, Steve Satterfield, Joe Stone, Carl Swafford, Chris Swafford, Dale Taylor, Michael Todd.

CHATTANOOGA—17 Dec; 0700–1800; partly cloudy to clear; temp. 23–39°F; wind NW 0–15 mph; 35 observers in 12 parties plus 2 at feeders; 104 party hours (63.5 on foot, 31.5 by car, 9 by boat) plus 6.5 at feeders, 8 owling; 571 party miles (51.5 on foot, 489.5 by car, 30 by boat) plus 86 owling. Good details submitted for Common Merganser (EG, DWo), Selasphorus sp. (PG et al., present since mid-October), Orange-crowned Warbler (PH, PR), and LeConte's Sparrow (RR). 102 species, 20,307 individuals. Clyde Blum, Edith Bromley, Louise Cash, David Chaffin, Brainard Cooper, Bob Crawford, Angela Davis, Ken Dubke, Lil Dubke, Paul Gabor, Edgar Grundset, Paul Harris, John Henderson (compiler—7323 Fairington Circle, Hixon 37343), Darryl Hosford, Ella Howard, J. N. Howard, Daniel Jacobson, Lenny Kafka, Starr Klein, Sandy Kurtz, Polly Lane, William Lane, Jonnie Sue Lyons, Barbara McMahan, Michael McMahan, Dottie Patton, Robert Pierce, Don Ritzhaupt, Sukie Ritzhaupt, Peter Robinson, Tommie Rogers, Robin Rudd, Donnie Rush, Bernie Tompkins, Dan Williams, Dick Wodenski.

HIWASSEE—1 Jan; 0500–1800; mostly cloudy; temp. 42–47°F; wind NW 5 mph; 22 observers in 9 parties; 86 party hours (57 on foot, 26 by car, 3 by boat) plus 5.5 owling; 477.9 party hours (43 on foot, 424.9 by car, 10 by boat) plus 47 owling. Good details submitted for Tundra Swan (LD, EK, probably same bird since 12 Nov) Common Merganser (LD, EK), Forster's Tern (LD, reported as Tern sp., but details and logic indicate Forster's), American Tree Sparrow (DR, CW), Lincoln's Sparrow (DS). 107 species, 25,751 individuals. Mark Armstrong, Clyde Blum, Richard Clark, Ken Dubke, Lil Dubke, Audrey Hoff, Darryl Hosford, Lenny Kafka, Elena Killian, Brian Locke, Charles Nicholson, Chris Norris, David Patton, Tom Patton, Mark Reeves, Robin Rudd (compiler—7611 Davidson Dr., Chattanooga 37421), Don Rush, Boyd Sharp, Damien Simbeck, Bernie Tompkins, Craig Watson, Dick Wodenski.

NORRIS—17 Dec; 0530–1800; cloudy to partly cloudy with AM flurries; temp. 24–36°F; wind NNW 5–15 mph; 8 observers in 4 parties: 27 party hours (16 on foot, 11 by car) plus 2 owling; 131 party miles (11 on foot, 120 by car) plus 15 owling. 62 species, 3,093 individuals. John Byrd, Richard Clark, Audrey Hoff, Ron Hoff, Fred Holtzclaw, Linda Fowler, George McKinney, Charles Nicholson (compiler—Box 402, Norris 37828).

KNOXVILLE—18 Dec; 0530–1730; partly cloudy to clear; temp. 16–38°F; wind SW 0–16 mph; 27 observers in 14 parties plus 2 at feeders; 106 party hours (62 on foot, 44 by car) plus 2 at feeders, 6 owling; 603 party miles (52 on foot, 551 by car) plus 30 owling. Fair details submitted for Great Egret (TK) and Northern Oriole (LF, SH, DP). 80 species, 24,429 individuals. Jane Beintema,

Chris Butler, Betty Campbell, James Campbell, Richard Clark, Carol Coleman, Marcia Davis, Barbara Finney, James Finney, Louise Fuller, Audrey Hoff, Ron Hoff, Joseph Howell, Susan Hoyle, Kate Johnston, Tony Koella, Bettie Mason, James Mason, Robert Mistak, Charles Nicholson, Holly Overton, Paul Pardue, Don Powers, Mark Reeves, Martha Rudolph, Boyd Sharp, James Tanner (compiler—417 Switzerland Dr., Knoxville 37920).

GREAT SMOKY MOUNTAINS NP-31 Dec; 0600-1700; cloudy with PM rain; temp. 32-58°F; wind var. 0-5 mph; 22 observers in 10 parties; 79.5 party hours (63.5 on foot, 16 by car) plus 0.75 owling; 220.3 party miles (74.5 on foot, 145.8 by car) plus 3 owling. The chickadees were of both species. 55 species, 2,671 individuals. Mark Armstrong, Jane Beintema, John Burkhart, Betty Campbell, James Campbell, Richard Clark, Don DeFoe (non-participating compiler—Great Smoky Mountains NP, Gatlinburg 37738), Louise Fuller, Audrey Hoff, Ron Hoff, J. C. Howell, Ellie Koella, Tony Koella, Robert Mistak, Charles Nicholson, Holly Overton, Paul Pardue, Mark Reeves, Bob Scott, Boyd Sharp, Damien Simbeck, James Tanner, Mary Trice.

GREENEVILLE—2 Jan; 0700–1830; cloudy to mostly cloudy; temp. 38–45°F; wind NW 5 mph; 22 observers in 8 parties plus 7 at feeders; 36.25 party hours (12.5 on foot, 23.75 by car) plus 18.75 party hours at feeders, 0.5 owling; 226.5 party miles (11.5 on foot, 215 by car) plus 0.5 owling. 67 species, 8,619 individuals. Ben Britton, Ed Britton, Orland Britton, Phine Britton (compiler—1750 Gott Dr., Greeneville 37743), Tio Carlos, Margaret Gaut, William Gaut, Juanita Heckert, Lenard Heckert, Don Holt, Jim Holt, Richard Knight, Richard Nevius, Willie Nevius, Daniel Nieves, Kay Nieves, Doug Ratledge, Helen Reed, Joanne Routledge, Larry Routledge, Helen Spees, Royal Spees, Virginia Williams.

KINGSPORT—31 Dec; 0700–1900; cloudy; temp. 36–42°F; wind PM SW 5 mph; 16 observers in 6 parties plus 1 at feeders; 49 party hours (14.8 on foot, 34.2 by car) plus 8 at feeders, 2 owling; 298 party miles (13 on foot, 285 by car) plus 30 owling. 72 species, 7,712 individuals. Reba Baker, Danny Blakley, Sandra Driskell, Kathy Dowda, David Golland, Jim Golland, Lugia Hawkins, Wynn Herbert, George Larkins, Tom Laughlin, Betsy McConnell, Betty Ottenfield, Bob Quillen, E. E. Scott, Arthur Smith (compiler—100 Otari Dr., Kingsport 37664), Frank Williams, Kristin Zimet.

ELIZABETHTON—17 Dec; 0415—1730; cloudy to mostly cloudy with snow flurries, 1–2 inch accumulation in high elevations; temp. 22–28°F; wind W 5–18 mph; 18 observers in 5 parties; 46 party hours (25 on foot, 21 by car) plus 3.5 owling; 309 party miles (22 on foot, 287 by car) plus 18 owling. 66 species, 5,098 individuals. Fred Alsop, Cat Bireley, Jim Brooks, Janet Brown, Linda Campbell, Brian Cross, Glen Eller, Harry Farthing, Sally Goodin, Bill Henninger, Brenda Hull, Rick Knight (compiler—804 N Hills Dr., Johnson City 37604), Dick Lura, Ed Schell, Cathi Sullins, Glenn Swofford, Gary Wallace, Frank Ward.

BRISTOL—31 Dec; 0730–1800; cloudy to partly cloudy; temp. 37–47°F; wind var. 0–5 mph; 11 observers in 5 parties plus 1 at feeders; 33.5 party hours (12 on foot, 21.5 by car) plus 3 at feeders, 1.5 owling; 302 party miles (6 on foot, 296 by car) plus 16 owling. 66 species, 4,532 individuals. Jim Boyd, Mary Boyd, Wallace Coffey, Glen Eller, Bert Hale, Loraine Hale, Joe Jackson, Richard Lewis (compiler—Rt. 3, Box 590, Bristol 37620), Vickie Lewis, Don Littrell, Randall Smith, Sarah Smith.

ROAN MOUNTAIN—18 Dec; 0545–1645; partly cloudy with 0-4 inch snow cover; temp. 4–26°F; wind W 10–30 mph; 10 observers in 3 parties; 26 party hours (15 on foot, 11 by car) plus 1.5 owling; 120 party miles (8 on foot, 112 by car) plus 4 owling. 41 species, 1,180 individuals. Fred Alsop, Danny Blakely, Jim

Brooks, Brian Cross, Sandra Driskell, Glen Eller, Rick Knight (compiler), Glenn Swofford, Gary Wallace, Frank Ward.

Addendum: The 1987 Christmas Bird Count (Migrant 59:5–13) did not include the Reelfoot Lake count; the results of that count follow. Reelfoot 22 Dec 1987; 0500–1630; clear, temp. 43–58°F; wind NW 0–5 mph; 11 observers in 6 parties; 45 party hours (12 on foot, 28 by car, 5 by boat) plus 1 owling; 429 party miles (21 on foot, 394 by car, 14 by boat) plus 5 owling. Fair details submitted for Spotted Sandpiper (Coffey party). 97 species, 120,649 individuals. Ben Coffey, Lula Coffey, Harold Elphingstone, Kenneth Leggett, Don Manning (compiler—Rt. 2, Box 81A, Buchanan 38222), Frank McCamey, David Pitts, Glenn Stanley, Donald Temple, Michael Todd, Wallace Todd.

Pied-billed Grebe 11; D-cr. Cormorant 4; Great Blue Heron 137; Gr. Wh.-fr. Goose CW; Snow Goose 10s, 5b; Canada Goose 28.1M; Wood Duck 27; Greenwinged Teal 19; Am. Black Duck 790; Mallard 57.4M; Northern Pintail 108; Blue-winged Teal 30; Northern Shoveler 60; Gadwall 3,250; American Wigeon 2,025; Canvasback 8; Redhead 3; Ring-necked Duck 80; Lesser Scaup 40; Common Goldeneye 4; Bufflehead 10; Hooded Merganser 22; Common Merganser 3; R.-br. Merganser 1; Ruddy Duck 758; Black Vulture 5; Bald Eagle 37a, 30i; Northern Harrier 10; Sharp-shinned Hawk 1; Cooper's Hawk 1; Red-shouldered Hawk 14; Red-tailed Hawk 42; American Kestrel 53; Wild Turkey CW; Northern Bobwhite 10; American Coot 508; Killdeer 99; Spotted Sandpiper 1; Common Snipe 53; Bonaparte's Gull CW; Ring-billed Gull 59; Herring Gull 1; Rock Dove 27; Mourning Dove 87; E. Screech-Owl 2; Great Horned Owl 1; Barred Owl 7; Short-eared Owl 1; Belted Kingfisher 10; Red-hd. Woodpecker 85; Red-bel. Woodpecker 137; Yel.-bel. Sapsucker 15; Downy Woodpecker 54; Hairy Woodpecker 11; Northern Flicker 129; Pileated Woodpecker 20; Eastern Phoebe 1; Horned Lark 94; Blue Jay 150; American Crow 458; Carolina Chickadee 165; Tufted Titmouse 59; Red-br. Nuthatch 2; White-br. Nuthatch 19; Brown Creeper 1; Carolina Wren 67; House Wren 1; Winter Wren 4; Golden-cr. Kinglet 11; Rubycr. Kinglet 29; Eastern Bluebird 61; Hermit Thrush 4; American Robin 146; Northern Mockingbird 39; Brown Thrasher 23; Water Pipit 4; Cedar Waxwing 14; Loggerhead Shrike 22; European Starling 8,386; Yel.-rumped Warbler 188; Northern Cardinal 220; Rufous-s. Towhee 15; Field Sparrow 56; Savannah Sparrow 20; Fox Sparrow 25; Song Sparrow 152; Swamp Sparrow 77; White-th. Sparrow 244; White-cr. Sparrow 7; Dark-eyed Junco 204; Red-wng. Blackbird 6,684; Eastern Meadowlark 137; Rusty Blackbird 116; Brewer's Blackbird 3; Common Grackle 5,386; Brown-hd. Cowbird 2,644; Purple Finch 2; Pine Siskin 1; American Goldfinch 42: House Sparrow 184.

#### THE SEASON

JOHN C. ROBINSON, Editor



#### FALL: 1 AUGUST-30 NOVEMBER 1988

Although the spring is accompanied by its brilliantly plumaged warblers, the fall is always the more exciting season to many ornithologists. This year was no exception. The weather patterns across the state saw normal and below normal amounts of precipitation, neither of which helped to ease the effects of the long-term drought. However, some of the major reservoirs were maintained at full-pool level. This combination of conditions resulted in a notably localized distribution of shorebirds; nevertheless, a great diversity of shorebirds was still represented from across the state.

Common Terns made a surprising appearance along the Mississippi River and in east Tennessee. Although this species is less frequently found in Tennessee than the Forster's Tern, it is sometimes reported in flocks that outnumber most concentrations of Forster's Tern in Tennessee. In 1942, *Migrant* editor Ben B. Coffey, Jr., coordinated a cooperative paper on the wrens of Tennessee (*Migrant* 13:1–13). A similar contribution, examining the chronology, abundance and distribution of Forster's and Common Terns on migration across the state, would be a valuable addition to the ornithology of Tennessee. Much of the information on the field identification of these two species that is available today did not exist 20 years ago. Anyone wishing to coordinate such a project should contact this editor at his/her earliest convenience.

A series of weak cold fronts in early and mid-fall may have been responsible for the arrival of some species ahead of schedule (e.g., Gadwall, Short-eared Owl, Greater White-fronted Goose and Northern Goshawk). This fall also saw a Magnificent Frigatebird added to the list of birds officially seen in Tennessee. Sharptailed and Le Conte's Sparrows are becoming more regularly reported, as evidenced by field work conducted in October and November. Wood Storks and Blacklegged Kittiwakes also appeared in two of the four reporting regions.

Details on the general observations noted above, as well as all of the other important sightings made this fall, are provided in the following report. First-time readers of this report, as well as all regular readers, are encouraged to submit their bird sightings to the appropriate Regional Compiler. Observers are again urged to provide written documentation of very rare species to their compilers. The publication of sightings of very rare birds that have been submitted without documentation is often less than desirable.—John C. Robinson

The following abbreviations are used in the text: ad = adult; b = banded; EOP = end of period; ers = earliest reported sighting; im = immature; 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 drought conditions that were noted during the summer continued unabated into the fall season until mid-November. Migration was depressed as transients arrived sporadically in waves ranging from very few to expected average numbers. Winter residents generally arrived late but did not appear to be any more or less common than normal. Migrating raptors were well reported, due in part to a 6-hour hawk watch conducted by Jeff Wilson on 24 September in Shelby Co.; data from that effort have been incorporated into this report. A heron/egret roost in southwest Shelby Co. generated interest among MTOS, and counts there swelled into the thousands. Even with drought-like conditions the Ensley Sewage Lagoons attracted many shorebirds; according to Manomet Bird Observatory, the lagoons comprise one of the better populated shorebird areas in the inland United States.

Loon-Falcon: Common Loon: 21 Nov (25) HNC (DWB); 7 Nov (1) Reelfoot Lake, LKC (WGC). Pied-billed Grebe: 21 Nov (62) HNC (DWB). Horned Grebe: 24 Oct (24) PLS (DWB); 30 Oct (3/4) McKellar Lake, SBC/MEM Riverfront (JRW, DAD); 21 Nov (170) HNC (DWB), a notable concentration. American White Pelican: 25 Oct (4 ad) Great River Road, near Is 21 (WGC). Double-crested Cormorant: 4 Oct (15) Is 21 (WGC); 8 Oct (130) Mississippi River, SW SBC (JRW, DAD); 24 Oct (160+) PLS (DWB); 30 Oct (225) SFP (MTOS); 7 Nov (300) Reelfoot Lake, LKC (WGC); 25 Nov (135) Mississippi River, SW SBC (Diane Bean, LCC, VBR, MGW). Anhinga: 4 Sep (2) ESL (DJS). The north end of Ensley Bar (ENB), River Mile 719 on the Mississippi River, was used as a rookery in 1987, according to the U.S. Corps of Engineers; approximately 200 Cattle Egret nests were counted last year. This year the area was not used as a rookery. However, on 6 August 1988, a count was made of the species using the island as a roost. See Migrant 59:118-119 for detailed information on the count. Sightings made on subsequent visits are included in this report. Great Blue Heron: 27 Oct (68) DYC (WGC): 30 Oct (98) Mississippi River, NW SBC (JRW), Great Egret: 22 Aug (100) Great River Road, LKC (WGC); 10 Sep (500) Lower Hatchie NWR, LDC (Linda Waters); 13 Sep (1500) ENB (Ray and Ted Wilson, MGW), highest 1-day count in the state; 11 Oct (75) ESL (Bill and Sarah Whitley); 27 Oct (68) Is 21 (WGC); 21 Nov (2) BSU (DWB). Snowy Egret: 11 Aug (156) ENB (JRW, DJS), max.; 21 Aug (96) MUL (JRW, DAD, LCC); 22 Aug (50) LKC (WGC); 10 Sep (70) Is 21 (WGC), Little Blue Heron: 2 Aug (500) MUL (JRW, DAD). TRICOLORED HERON: 31 Jul-27 Aug (1-26) ESL, MUL (JRW, DAD, CGD, LCC); most, if not all, were immature birds. Black-crowned Night-Heron: 2 Aug (5 ad, 3 im) Is 21 (WGC); 6-27 Aug (2-12) ENB (JRW, m. ob.). White Ibis: 5 Aug-17 Sep (1-15 im) MUL, ENB (JRW, DAD, m. ob.); the birds using Mud Lake during the day were most likely the same ones observed flying to roost at ENB in the evening, WOOD STORK: 27 Aug (70) ENB (JRW, m. ob.); 13 Sep (206) ENB (Ray and Ted Wilson, MGW), max. Green-winged Teal: 21 Nov (220) HNC (DWB). Canvasback: 5 Nov (80) BRF (DWB). Redhead: 29 Oct (38) BRF (DWB). Greater Scaup: 21 Nov (7) HNC (DWB), rare in the Western Coastal Plain region of the state. Oldsquaw: 29 Oct (2) BRF (DWB). BLACK SCOTER: 29 Oct (1) PLS (DWB); 4 Nov (1) PLS (DJS); 21 Nov (1) BSU (DWB). Surf Scoter:

29 Oct (1) BRF (DWB): 24 Nov (1) Pickwick Lake, Hardin Co. (DJS), Common Goldeneve: 21 Nov (132) HNC (DWB). Bufflehead: 21 Nov (430) HNC (DWB), an unusually large concentration, Hooded Merganser: 21 Nov (175) HNC (DWB). Common Merganser: 19 Nov (3) BRF (AHH, Nita R. Heilman, DWB), ers. Redbreasted Merganser: 30 Oct (3) PLS (DWB); 30 Oct (9) SFP (JRW); 9 Nov (1) PEF (CHB, SLL, NMS, VBR, BHW). Ruddy Duck: 2 Aug (1 male) Is 21, 10 Oct (2) Is 21 (WGC); 21 Nov (250+) HNC (DWB). Osprey: 5 Sep (10) Millsfield, 23 Sep (1) Heloise, 10 Oct (2) Is 21 (WGC), all in DYC; 24 Sep (3) ESL (JRW); 9 Oct (1) PLS (DWB). Mississippi Kite: well distributed in LKC and DYC, but no large flocks (WGC). Bald Eagle: 16 Sep (1 im) PEF (JRW); 21 Oct (1 im) Is 21 (WGC). Sharp-shinned Hawk: regularly reported in small numbers at scattered locations beginning in late Sep. Cooper's Hawk: 24 Sep (4) ESL (JRW), max. Rough-legged Hawk: 24 Nov (1) Pittsburg Landing, Hardin Co. (DJS), Merlin: 5. 6 Oct (1) MEM (JRW): 15 Oct (1) ESL (JRW): 15 Oct (1) PEF (MTOS): 7 Nov (1) PEF (JRW). Peregrine Falcon: 24 Sep (3) ESL (JRW); 2 Oct (1) PEF (MGW); 16 Nov (1) MEM (Walk Jones).

Rail-Owl: Sora: 10 Sep (2) Heloise, DYC (WGC), Biweekly trips to the T. J. Maxson Sewage Lagoons (ESL) continued this season. Observations since 1982 have been submitted to Manomet Bird Observatory, International Shorebird Survevs. They have indicated that the records from ESL are among the highest reported for a sewage treatment plant. The following shorebird data from this area reflect the lowest and highest numbers seen during the period. Black-bellied Plover: 6, 27, 31 Oct (1, 5, 7) Is 21 (WGC). Lesser Golden-Plover: 6 Oct (1) Is 21 (WGC). Semipalmated Plover: 5 Aug-18 Sep (2-9) ESL (CHB, VBR, MGW). Piping Plover: 11 Aug (2) ESL (JRW, DJS); 14 Aug (1) ENB (JRW, DAD, Michael L. Bierly, CGD), Killdeer: 5 Aug-6 Nov (4-231) ESL (CHB, VBR, MGW), Lesser Yellowlegs: 5 Aug-29 Oct (2-78) ESL (CHB, VBR, MGW). Solitary Sandpiper: 5 Aug-10 Oct (1-33) ESL (CHB, VBR, MGW). Sanderling: 4 Sep (1) ESL (DJS): 4 Sep (24) Ballard Slough, Tipton Co. (DJS, Richard L. Wittington), max: 5 Sep (5) Is 21 (WGC); 7 Sep (4) Is 13 (WGC). Semipalmated Sandpiper: 5 Aug-22 Sep (2-94) ESL (CHB, VBR, MGW). Western Sandpiper: 5 Aug-27 Oct (1-3) ESL (CHB, VBR, MGW). Least Sandpiper: 5 Aug-6 Nov (1-250) ESL (CHB, VBR, MGW, MTOS). Baird's Sandpiper: 28 Aug, 18 Sep (1, 1) ESL (VBR, MGW); 8-26 Sep (4) Is 21 (WGC), max; 23 Sep (1) Heloise, DYC (WGC); 24 Sep (1) ESL (JRW). Pectoral Sandpiper: 5 Aug-29 Oct (6-525) ESL (CHB, VBR, MGW). Dunlin: 21 Oct (5) Is 21 (WGC); 27 Oct, 1 Nov (2, 1) ESL (CHB, VBR, MGW); 5 Nov (3) BRF (DWB). Stilt Sandpiper: 10-27 Aug (1-21) ESL (CHB, VBR, MGW); 8 Sep-4 Oct (30+, with 48 birds present on 15 Sep) Heloise, DYC (WGC). Buff-breasted Sandpiper: 21 Aug (4) ESL (VBR, MGW); 4 Sep (2) Ballard Slough, Tipton Co. (DJS); 8, 10 Sep (1) Heloise, DYC (WGC), RUFF; 21 Aug (1 female) ESL (\*MGW, VBR), the 2nd reported and accepted sighting for Tennessee; details to be published. Stercorarius (JAEGER) sp.: 2 Sep (1) on Kentucky Lake at PLS (\*DJS, JCR). Laughing Gull: 25 Sep (3) Mississippi River, SW SBC (JRW). Franklin's Gull: 6 Nov (16) Mississippi River, SW SBC (JRW, DAD), an unusually high concentration. BLACK-LEGGED KITTIWAKE: 20 Nov (1 ad) on Kentucky Lake at PLS (\*DJS, CAS, Mert Sloan), 1st west Tennessee record. 6th record for state. Caspian Tern: 16 Oct (1) PLS (DJS). Common Tern: 1 Oct (30) Mississippi River, SW SBC (JRW), high number. Forster's Tern: 5 Sep (11) Is 21 (WGC); 9 Sep (16) PLS (DWB); 29 Oct (1) PLS (DWB). Black Tern: 5 Aug (15) ESL (Murray L. Gardler). Short-eared Owl: 19 Nov (1) BSU (DJS).

Flycatcher-Oriole: Olive-sided Flycatcher: 21 Aug (1) DYC (CHB). WESTERN KINGBIRD: 20–29 Sep (1–2) Bartlett, SBC (JRW), at the same location as re-

ported last year; 1 Nov (1) ESL (CHB, MGW). Purple Martin: 6 Aug (9,000) ENB (JCR, JRW, DAD, CHB). Tree Swallow: 8 Oct (1,500) Robco Lake, SW SBC (Ben B. Coffey, Jr., LCC); 27 Oct (10) Fort Pillow S.P., LDC (MTOS); 30 Oct (11) SFP (MTOS); 13 Nov (9) State Road 87, LDC (CHB, MGW). Brown Creeper: 25 Aug (1) SFP (Jo L. Levy, Dwight Miller), possibly summered? House Wren: 15 Oct (5) ENB (JRW, DJS); 30 Oct (1) SFP (MTOS). Water Pipit: 9 Nov (2) PEF (CHB, SLL, NMS, VBR, BHW); 10 Nov (7) BRF (DWB). Solitary Vireo: 6 Oct (1) PEF (MGW, Bill Cantrell): 26 Oct (1) KEP (CHB, BHW), Orange-crowned Warbler: 15 Oct (1) ENB (JRW, DJS); 19 Oct (1) PEF (CHB); 30 Oct (1) PEF (MTOS). BLACK-THROATED BLUE WARBLER: 24 Sep (1 female) Ponderosa Properties, DTC (CHB), details on file: 5th west Tennessee record, 1st DTC record. Yellow-rumped Warbler: 26 Oct (125) KEP (CHB, BHW). Yellow-throated Warbler: 16 Oct (1) MEM (VBR). Palm Warbler: 19 Oct (1) PEF (CHB). Connecticut Warbler: 15 Sep (1) PEF (VBR, MGW); 15 Oct (1) MEM (JRW), Grasshopper Sparrow: 29 Oct (1), 5 Nov (4) PEF (JRW, DJS, DAD). Le Conte's Sparrow: 2 Nov (1) (TJW), 5 Nov (1) (DWB), 20 Nov (1) (DJS, Johnny Parks), all at BRF. Sharp-tailed Sparrow: 9, 29 Oct (1, 1) BRF (DWB). Lincoln's Sparrow: 9 Oct (2) PEF (JRW); 15 Oct (5) ESL (JRW). White-crowned Sparrow: 19 Oct-EOP (25-30) MEM (MGW), max. Harris' Sparrow: 6 Nov (1) McKellar Lake, SBC (JRW, DAD). Dark-eyed Junco: 27 Sep (2) SFP (VBR, Helen B. Dinkelspiel, SLL, NMS), ers. Lapland Longspur: 8 Nov (170+) PEF (JRW); 9 Nov (10+) PEF (CHB, SLL, NMS, VBR, BHW). Bobolink: 26 Oct (1) BRF (TJW), unusually late. Western Meadowlark: 5-13 Nov (2) PEF (JRW, m. ob.). Orchard Oriole: 20 Aug (1) NE DTC (CHB).

Locations: BRF—Britton Ford, Tennessee NWR, Henry Co.; BSU—Big Sandy Unit, Tennessee NWR, Henry Co.; DTC—Decatur Co.; DYC—Dyer Co.; ENB—Ensley Bar, Shelby Co.; ESL—Ensley Sewage Lagoons, Shelby Co.; HNC—Henry Co.; Is 13—Island 13, Lake Co.; Is 21—Island 21, Dyer Co.; KEP—Kennedy Park, Memphis, Shelby Co.; LDC—Lauderdale Co.; LKC—Lake Co.; MEM—Memphis, Shelby Co.; MUL—Mud Lake, Memphis, Shelby Co.; PEF—Penal Farm, Shelby Co.; PLS—Paris Landing S.P., Henry Co.; SBC—Shelby Co.; SFP—Shelby Forest S.P., Shelby Co.

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HIGHLAND RIM AND BASIN REGION—Several rare species were reported in the region this fall. Most significant was the occurrence of a Magnificent Frigate-bird in Columbia that can almost surely be attributed to Hurricane Gilbert's passage through the Gulf of Mexico. This record constitutes the 2nd state record (see the Eastern Ridge and Valley section of this Season report for the 1st state record). Other notable records include 2 Glossy Ibis at Gallatin Steam Plant, a Wood Stork at Cross Creeks NWR, the first Davidson Co. record of Ruffed Grouse, a Common Ground-Dove that collided with a window in Clarksville, and the possible occurrence of the "Red-shafted" form of the Northern Flicker in Nashville.

Numbers of some of the more common species showed unusual trends. For example, while transient thrushes were reported in fairly high numbers on the Plateau, they were almost absent in Nashville and were also reported in very low numbers in localities west of Nashville. Conversely, Yellow-rumped Warblers were present in extremely large numbers throughout the region. Boreal species were represented by only a few records, with 1 report of Pine Siskin and 2 reports of Red-breasted Nuthatch; no Evening Grosbeaks were reported. Purple Finches

were also low, but House Finches were reported in many localities where they had not previously been recorded.

The wild food crop in the region proved to be exceptional. Berry-producing plants such as dogwood, privet, poison ivy (perhaps the good poison ivy berry crop accounts for the large numbers of Yellow-rumped Warblers present this season), and bush honeysuckle produced an enormous amount of fruit; much of which was still on the plants at the end of the period. The mast crop was generally good, though nuts on the Plateau were more plentiful than in the Basin. Weed seeds were also present in fairly good quantities throughout the region.

The weather conditions in the area continued to be generally warmer and drier than normal. Hurricane Gilbert passed through the Gulf of Mexico in mid-September but produced no extreme weather conditions in the region. In Nashville, rainfall was 1.3 inches below normal for the period, with only November receiving more than the average amount of rain. Temperatures in Nashville were slightly above normal for August, September and November, but were slightly below normal in October.

Loon–Stork: Red-throated Loon: 13 Nov (1) WDR (CAS). Horned Grebe: 7 Sep (1) Franklin Reservoir, WMC (Elizabeth O'Connor), ers. Double-crested Cormorant: 4 Aug (1) Duck River Unit, Tennessee NWR, HPC (JCR), ers; 2 Oct (58) GSP (CAS, CGD, VJS), max. MAGNIFICENT FRIGATEBIRD: 27 Sep (1) Ladue Manor subdivision, Columbia, MUC (\*WNJ), 2nd state record; this bird was recorded 3 days after the first observation of this species in the state and within 2 weeks of Hurricane Gilbert's passage through the Gulf of Mexico. Great Egret: 10 Aug (12) CCNWR (DWB); 18 Oct (4) CCNWR (DWB), Irs. Snowy Egret: 1 Aug–5 Sep (1–3) CCNWR (DWB), only report for region. Little Blue Heron: 10 Aug (144) CCNWR (DWB), max. Cattle Egret: 23 Oct (3) CFC (MDH, FDH), only reported sighting. Green-backed Heron: 9 Nov (1) BWMA (DWB), Irs. White Ibis: 28 Aug, 3 Sep (1 im) MOP (ARL, OBL). GLOSSY IBIS: 2 Sep (2) GSP (\*DJS, DTC, JPC, RYN). WOOD STORK: 10 Aug (1) CCNWR (DWB), 3rd SWC record.

Goose–Duck: Greater White-fronted Goose: 17 Oct–10 Nov (6–11) CCNWR (JCR, DWB). Snow Goose: 24 Oct (2 blue phase, 1 white phase) CCNWR (JCR), ers. Wood Duck: 5 Nov (150+) Lake Olallala, DVC (Debbie Hill), max. American Black Duck: 29 Aug (3) BWMA (DWB), ers. Northern Pintail: 5 Sep (3) CCNWR (DWB), ers; 5 Nov (127) CCNWR (DWB), max. Blue-winged Teal: 5 Aug (2) CCNWR (JCR), ers; 29 Aug (153) CCNWR (DWB), max; 21 Oct (1) CCNWR (DWB), lrs. Northern Shoveler: 23 Aug (2) CCNWR (DWB, JCR), ers; 5 Nov (16) CCNWR (DWB), max. Gadwall: 29 Aug (7) CCNWR (JCR), ers. Canvasback: 2–30 Nov (up to 50) Franklin Reservoir, WMC (Elizabeth O'Connor), max. Redhead: 4 Nov (2) Franklin Reservoir, WMC (CAS), only report for region. Ringnecked Duck: 1 Oct (1) RDL (NTOS), ers. Oldsquaw: 20 Nov (1 female) RDL (DJS), Surf Scoter: 25 Nov (1) RDL (CAS).

Vulture–Falcon: Black Vulture: 30 Nov (350) Salem-Lexie Rd., FKC (J. J. Bruner), max. Bald Eagle: 1 Sep (1 im) Buffalo River, MUC (WNJ), ers; 11 Nov (1) Normandy Lake, CFC (B. J. Jenkins); 12 Nov (1 ad, 1 im) WDR (Chloe W. and Howell J. Peebles); 28 Nov (1 ad) Star Point Resort, PIC (Francis Baker); late Nov (1) Big Bottoms area, Cordell Hull Lake, Jackson Co. (fide Dale Massengill), found dead from gunshot, banded as a nestling in Michigan, 31 May 1987. Northern Harrier: 26 Aug (1) CCNWR (DWB), ers; 24 Oct (6) CCNWR (JCR), max. Rough-legged Hawk: 11 Nov (1) Woodlawn Rd., Fort Campbell area, Montgomery Co. (DWB), ers; 12 Nov (2) MOP (OBL, WNJ); only reports. Golden Eagle: 20 Oct (1) Giles Co., near Marshall Co. line (fide John L. Stokes), found

with gunshot wounds; taken to Cumberland Wildlife Foundation for rehabilitation; carried patagial tag and radio transmitter; hacked at Pigeon Mt., Walker Co., Georgia in 1987. Merlin: 17 Sep (1) Dover, SWC (JCR). Peregrine Falcon: 22 Sep (1) CCNWR (DWB); 2 Oct (1) CCNWR (DWB), lrs.

Grouse-Phalarope: RUFFED GROUSE: 18 Nov (1) Grassmere, DVC (\*Walter A. Jones, Nicholas Young, Steve Young), good documentation submitted for this 1st DVC record. Sora: 29 Aug (6) BCWMA (DWB), ers and max. Sandhill Crane: 24 Sep (2) Burgess Falls Lake, Putnam Co. (John L. Stokes), ers; 2 Nov (10) BAH (RWS); 9 Nov (171) PIC (RCH), max; 13 Nov (109) PIC (RCH); 15 Nov (85) PIC (RCH); 22 Nov (18) BAH (RWS), Irs; total of 395 reported from 3 locations. Black-bellied Plover: 3 Sep (1) CCNWR (DWB), ers; 1 Oct (1) OHL, Sumner Co. (RYN, LFK, HCK), Irs. Lesser Golden-Plover: 18 Sep (2) CCNWR (JCR), only report for season. Semipalmated Plover: 4 Oct (1) CCNWR (JCR), Irs. Greater Yellowlegs: 8 Jul (1) CCNWR (JCR), ers; 12 Nov (2) MOP (OBL, WNJ), lrs. Lesser Yellowlegs: 29 Aug (36) CCNWR (DWB), max. Solitary Sandpiper: 2 Oct (1) CCNWR (DWB), Irs. Willet: 8 Jul (1) CCNWR (JCR), ers; 12 Nov (1) MOP (OBL, WNJ), Irs. Upland Sandpiper: 22 Sep (1) CCNWR (JCR), only report for season, Ruddy Turnstone: 30 Jul (2) CCNWR (DWB, JCR), 1st SWC record; 30 Aug (1) BCWMA (DWB), 2nd SWC record. Sanderling: 22 Aug (2) CCNWR (DWB), ers. Semipalmated Sandpiper: 5 Jul (1) CCNWR (JCR), ers. Western Sandpiper: 9 Jul (1) CCNWR (JCR), ers. Least Sandpiper: 29 Jun (2) CCNWR (JCR), ers. White-rumped Sandpiper: 22 Aug (2) CCNWR (DWB), only report. Baird's Sandpiper: 11 Sep (2) CCNWR (DWB), only report for season. Pectoral Sandpiper: 5 Jul (2) CCNWR (JCR), ers; 29 Sep (158) CCNWR (DWB), max; 18 Oct (2) CCNWR (DWB), Irs. Dunlin: 8 Nov (1) CFC (MDH), Irs. Stilt Sandpiper: 4 Jul (1) CCNWR (JCR), ers; 5 Sep (1) CCNWR (DWB), Irs, Buff-breasted Sandpiper: 21 Aug (2) GSP (CAS, JPC, DTC), ers; 22 Aug (1) CCNWR (DWB); 25 Aug (1) Todd's Lake, Rutherford Co. (TJW); 26 Aug (1) CCNWR (DWB), lrs; 4 reports from 3 locations for season, all falling within a 5-day period. Short-billed Dowitcher: 10-11 Jul (1-2) CCNWR (\*JCR), ers; 31 Jul (1) CCNWR (\*JCR), lrs. Long-billed Dowitcher: 30 Jul (1) CCNWR (\*JCR), only report for season. Common Snipe: 24 Aug (4) BCWMA (DWB), ers. Wilson's Phalarope: 19 Aug (1) Todd's Lake, Rutherford Co. (TJW), ers; 25 Aug (1) CCNWR (DWB), Irs.

Gull-Tern: Ring-billed Gull: 1 Sep (1) Duck River Unit, Tennessee NWR, HPC (JCR), ers. Caspian Tern: 14 Jul (5) CCNWR (JCR), ers; 1 Oct (8) OHL, Sumner Co. (RYN, LFK, HCK), Irs and max. Forster's Tern: 8 Jul (3) CCNWR (JCR), ers; 19 Nov (1) CCNWR (CAS, JCR, m. ob.), Irs. Least Tern: 6 Aug (2) CCNWR (DWB), ers; 11 Aug (3) CCNWR (\*JCR), max; 16–18 Aug (1–2) CCNWR (JCR). Black Tern: 16 Jul (2) CCNWR (JCR), ers; 2 Oct (1) OHL, Sumner Co. (RYN, LFK, HCK), Irs.

Dove-Flicker: COMMON GROUND-DOVE: Oct 1988 (1, \*\*) CLA (fide DWB); 11th documented state record, window casualty taken to area taxidermist for mounting. Yellow-billed Cuckoo: 22 Oct (1) CLA (AHH), Irs. Short-eared Owl: 2 Oct (1) Metro Center, DVC (CGD), new fall arrival date for Nashville area; previous earliest date was 30 Oct 1953; 24 Oct (1) CCNWR (JCR), occurrence of this 2nd early fall date very notable. Ruby-throated Hummingbird: 14 Nov (1) Belle Meade, DVC (Ann Bryab, fide Susan M. Bell), new late departure date for Nashville area. Yellow-bellied Sapsucker: 2 Oct (1) MUC (Richard A. Figari), ers. Northern Flicker: 14 Sep (1, \*\*) WSMV television tower (DFV), several wing, tail and body feathers were collected as part of the regular tower casualty collection project at this site. All of these feathers show salmon colored shafts that suggest the possibility of this specimen being of the Red-shafted subspecies; feathers were

inspected by Richard C. Banks of the National Museum, Washington, D.C., who reported that they matched well with specimens of Red-shafted Flickers in their collection; Dr. Banks hesitated to conclude that the feathers in question definitely came from a Red-shafted specimen, citing the possibility of a hybrid (these feathers are now part of the collection at the Warner Park Nature Center in Nashville).

Flycatcher-Vireo: Acadian Flycatcher: 30 Sep (2, b) LSC (GRM), Irs. Northern Rough-winged Swallow: 2 Oct (1) BWMA (DWB); 5 Oct (1) CCNWR (JCR), Irs. Red-breasted Nuthatch: 13 Oct (1) Dover fire tower, SWC (DWB); 27 Nov (1) Loretto, Lawrence Co. (Don K. and Donna N. Simbeck); only reports. Brown Creeper: 3 Oct (1) BAH (RWS), ers. Bewick's Wren: 24 Sep (1) Westvaco land, off Old Highway 18, SWC (DWB), only record for season. Winter Wren: 30 Sep (1) BAH (RWS), ers. Sedge Wren: 8 Aug (2) LBL (JCR, DWB), ers; 14 Aug (6) MOP (Mark H. Mayfield). Golden-crowned Kinglet: 3 Oct (1) BAH (RWS), ers. Ruby-crowned Kinglet: 3 Oct (1) BAH (RWS), ers. Blue-gray Gnatcatcher: 24 Sep (4) WSB (DWB), Irs. Veery: 5 Sep (1) BAH (RWS), ers. Swainson's Thrush: 14 Sep (30) BAH (RWS), max. Gray Catbird: 26 Oct (1) Love Hill, DVC (JCA), Irs. Water Pipit: 29 Oct (23) CCNWR (DWB), max. Cedar Waxwing: 9 Aug (nesting, 2 ad, 1 im) Lovelady Community, PIC (RCH). Solitary Vireo: 19 Oct (1) West Meade, DVC (CND, CRD); 20 Oct (1) CLA (AHH), only reports. Philadelphia Vireo: 18 Sep (1) LBL (JCR), ers; 18 Oct (1, b) LSC (GRM), Irs.

Warblers: Blue-winged Warbler: 10 Oct (1, b) COL (GRM), Irs. Golden-winged Warbler: 8 Sep (1) West Meade, DVC (CRD, CND), ers; 21 Sep (1) CLA (AHH), Irs. Tennessee Warbler: 11 Sep (1) WSB (DWB), ers; 7 Nov (1, b) COL (GRM), Irs. Orange-crowned Warbler: 7 Nov (1, b) COL (GRM), Irs. Nashville Warbler: 12 Sep (1) WSB (DWB), ers; 10 Oct (1, b) COL (GRM), Irs. Northern Parula: 18 Sep (1) CCNWR (JCR), Irs. Chestnut-sided Warbler: 27 Aug (2) CLA (AHH), ers; 20 Oct (1) CLA (AHH), Irs. Magnolia Warbler: 31 Aug (1) CFC (MDH), ers; 18 Sep (23) SWC (JCR); 20 Oct (1, b) COL (GRM), Irs. Black-throated Blue Warbler: 17 Sep (1 female) Pennington Bend, DVC (Margaret L. Mann), ers; 18 Sep (1 male) LBL (JCR); 2 Oct (1 male) RDL (CND, RCD), Irs. Yellow-rumped Warbler: 24 Sep (3) BWMA (DWB), ers; 29 Oct (50+) PIC (RCH), max. Black-throated Green Warbler: 5 Sep (1) WSB, ers; 29 Oct (1) CLA (AHH), Irs. Blackburnian Warbler: 7 Sep (2) BAH (RWS), ers; 2 Oct (2) BWMA (DWB), Irs. Mourning Warbler: 2 Oct (1) BWMA (DWB), only report for season. Wilson's Warbler: 2 Oct (1) Percy Warner Park, DVC (DFV), Irs.

Grosbeak–Siskin: Rose-breasted Grosbeak: 24 Nov (1, ph) Love Hill, DVC (F. Peck, fide \*JCA), new Nashville Area late date, seen regularly at feeder until above date. Indigo Bunting: 20 Oct (1) CLA (AHH), Irs. Vesper Sparrow: 17 Oct (1) CCNWR (JCR), ers; 19 Oct (1) BWMA (DWB). Grasshopper Sparrow: 14 Nov (1, \*\*) DVC (CGD), new Nashville Area late date, freshly killed—apparent window casualty, preserved as specimen in the Bierly collection. Lincoln's Sparrow: 9 Oct (1) CCNWR (DWB), only record for season. Bobolink: 4 Sep (10) CCNWR (DWB), ers. Northern Oriole: 24 Sep (1) WSB (DWB), Irs. Pine Siskin: 29 Oct (4) PIC (RCH), only report for season.

Locations: BAH—Barnes Hollow, Putnam Co.; BCWMA—Bear Creek WMA, Stewart Co.; BWMA—Barkley WMA, Stewart Co.; CCNWR—Cross Creeks NWR, Stewart Co.; CFC—Coffee Co.; CLA—Clarksville, Montgomery Co.; COL—Columbia, Maury Co.; DVC—Davidson Co.; FKC—Franklin Co.; GSP—Gallatin Steam Plant, Sumner Co.; HPC—Humphreys Co.; LBL—Land-Between-the-Lakes, Stewart Co.; LSC—Lewis Co.; MOP—Monsanto Ponds, Maury Co.; MUC—Maury Co.; OHL—Old Hickory Lake, Sumner Co.; PIC—Pickett Co.; RDL—Radnor Lake State Natural Area, Davidson Co.; SWC—Stewart Co.; WDR—Woods Res-

ervoir, Franklin Co.; WMC-Williamson Co.; WSB-Wiley's Spring Bay, Stewart Co.

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EASTERN RIDGE AND VALLEY REGION—Rainfall this season was near average to slightly above average (range 0.5 inches deficient at Johnson City to +2.75 inches at Chattanooga), but did not greatly diminish the long-term drought conditions plaguing the region. Temperatures were near normal during August and September. At Tricities Regional Airport, October temperatures were the coldest on record for that month, but conditions were apparently milder at Knox-ville and Chattanooga. November temperatures were slightly above average. The remnants of Hurricane Gilbert passed through on 20 September (after pounding the western Gulf of Mexico), and almost certainly accounted for Tennessee's first Magnificent Frigatebird, and perhaps some of the shorebirds, gulls and terms seen in late September.

According to Bill Felts, TVA Manager of Reservoir Operations, "because of the drought conditions this was the first time TVA did not perform the weekly water-level fluctuations [of Chickamauga Lake] for their biological mosquito control operation." As a result of the full pool level, shorebirds and even long-legged waders were in reduced numbers, especially upstream at the Hiwassee River Area. However, "One possible side benefit of the stabilized water level and abundant aquatic 'weeds' was the first recorded nestings of the Pied-billed Grebe and Common Moorhen in the Sugar Creek section of HRA" (fide Ken Dubke). Many small ponds and marshes remained dry. Despite the drought, most seed and fruit crops were good.

Several rare species and some unusual concentrations were reported this season, as well as some notable absences and low numbers. There were good flights of loons, cormorants, cranes (reports incomplete) and terns; while most ducks and shorebirds were in low to fair numbers. Thrushes, other than Veery, were in improved numbers. Vireos and warblers were generally considered to be scarce. Only one Red-breasted Nuthatch and very few boreal finches indicate an off-year for these irruptive species.

The region's two banding stations reported below average capture rates. Chuck Nicholson banded 644 birds of 60 species in 32 days from 14 August to 6 November at Norris, while Rick Knight banded 430 birds of 45 species in 41 days from 2 September to 4 November at Austin Springs. Banding during August and September was very slow.

Loon-Heron: Red-throated Loon: 5-6 Nov (1) BOL (RLK). Common Loon: good flight; 21 Oct (3) BOL (BLC, RLK), ers; 29 Oct (37) CRL (RLK); 1 Nov (135) BOL (BLC), 3rd largest flock ever in JNC-Elizabethton area, max; 19 Nov (109) CHL (Elena S. Killian). Pied-billed Grebe: 14 Aug/4 Sep (pair with 5 yg) Sugar Creek, HRA (ARH, RDH/KHD, LHD), rare breeder in east Tennessee; 11 Nov (132) CHL (KHD, LHD), max. Horned Grebe: 21 Oct (6) BOL (BLC, RLK), ers; 24 Nov (58) CHL (KHD), max. Double-crested Cormorant: good flight; 27 Aug (1) KSP (KHD), ers; 11 Sep-19 Oct (1-10) AUS (RLK et al.); 16 Sep-5 Nov (1-19) BOL (BLC, GWS, MD, CFW, RLK); 17 Sep-EOP (1-12) FLL (MLD et al.); 25 Sep (36) KNC (KTOS), max; 29 Oct (2) CRL (RLK); 17 Nov (1) JNC (Richard D. Lura). MAGNIFICENT FRIGATEBIRD: 24 Sep (1 ad female, ph) CRL, Hamblen Co. portion (Joyce Haigh, fide JBO), 1st state record, seen a few days after Hurrican Gilbert, details to be published. American Bittern: 19 Sep (1) AUS (RLK); 26 Nov (1) HRA (KHD); only reports. Great Egret: low numbers in

CHA area due to high lake level, but several reports elsewhere; 4 Oct (31) AUS (RLK), most ever recorded in JNC area, max; 5/7 Nov (1/1) FLL/HRA (MLD/RLK, BLC, CFW), Irs. Little Blue Heron: 25–27 Aug (1) NIL (RJH); 28 Aug (1) McMinn Co. (ARH, RDH); 4 Sep (1) HRA (KHD, LHD). Cattle Egret: 6 Sep (1) AUS (RLK), only report. Green-backed Heron: 11 Nov (1) HRA (KHD), Irs. Black-crowned Night-Heron: 7 Aug (15) KSP (KHD); 16–27 Aug (3) NIL (RJH); 25 Aug (75+) CRL (RLK), max; 2 Sep–1 Oct (1–2) AUS (RLK); through 21 Oct (1–24) BOL (BLC et al.).

Waterfowl: Tundra Swan: 12-26 Nov (1 im) HRA (m. ob.). Snow Goose: 7 Nov-EOP (1-2 blue, 1-6 white) HRA (KHD, LHD et al.); 29 Nov (4 white, 8 blue) WBL (TWRA), max. BRANT: 5-7 Nov (1 im) CHL (KHD, m. ob.), about the 8th state record. Canada Goose: 9 Nov (1318) CHL & HRA (TWRA), max. Green-winged Teal: 4 Sep (2) KSP (ARH, RDH), ers; 11 Nov (518) HRA (KHD. LHD), max. American Black Duck: 29 Nov (359) HRA (TWRA), max. Mallard: 29 Nov (629) HRA (TWRA), max. Northern Pintail: 24 Nov (30) HRA (KHD, LHD), max. Blue-winged Teal: 4 Sep (65) KSP (KHD, LHD), max. Gadwall: 9 Sep (2) KSP (KHD, LHD), ers; 27 Nov (330) CHL (KHD, LHD), max. American Wigeon: 20 Nov (200) HRA (KHD, LHD), max, Canvasback: 20–26 Nov (18– 30) HRA (KHD, LHD), largest number in CHA area in 10+ years; 28 Nov (5) BOL (RLK). Redhead: 29 Oct (2) CRL (RLK), ers; 1 Nov (12) BOL (GDE); 11/ 20 Nov (6/30) HRA (KHD, LHD); 27 Nov (8) CHL (KHD, LHD). Ring-necked Duck: 20 Nov (1,000) HRA (KHD, LHD), max. Greater Scaup: 24 Nov (40) CHL (KHD), max. Lesser Scaup: 6 Nov (115/160) CRL/CHL (RLK/KHD, LHD), max. Common Goldeneve: 24 Nov (5) CHL (KHD), max. Bufflehead: 9 Nov (50) WBL (TWRA), max. Hooded Merganser: 24 Nov (215) HRA (KHD, LHD), max. Redbreasted Merganser: 29 Oct (8) CRL (RLK), ers & max. Ruddy Duck: 17 Nov (18) BOL (RLK), large number for JNC area; 24 Nov (195) CHL (KHD, LHD), max.

Vulture-Crane: Vulture: 29 Oct (15 Black, 105 Turkey) CRL, Hawkins Co. portion (RLK), at roost, Osprey: 17 Nov (1) Roane Co. (CPN), Irs. Bald Eagle: 30 Sep (1 im) AUS (RLK); 6 Nov (1 ad, 1 im) CRL (RLK); "several reports from KNX area lakes" (fide CPN); all sightings should be reported. Northern Harrier: 3 reports in JNC area (RLK); only 1 report in KNX area (fide CPN). Sharpshinned & Cooper's Hawk: near normal numbers reported. NORTHERN GOS-HAWK: 9 Nov (1 im) Boone's Creek, WGC (BLC). ROUGH-LEGGED HAWK: "about Thanksgiving" (1 light phase) junction of I-81 & I-181 in Sullivan Co. (Greg McConnell fide FJA), rare in northeast Tennessee. Peregrine Falcon: 12 Aug (1) Cedar Creek, GNC (Don Holt fide FJA), "diving at herons;" 18 Sep (1) JNC (RLK), migrating with a kettle of Broad-winged Hawks; 1 Oct (1 im) AUS (RLK, BLC, JWB); 30 Nov (1) Raccoon Mountain Pumped Storage Station. Marion Co. (Lenny Kafka). Virginia Rail: 7 Oct (1) AUS (BLC, GWS), only report. Sora: no reports. COMMON MOORHEN: 7 Aug (1 ad with 4 yg) Sugar Creek, HRA (MWA), very rare breeder in east Tennessee. American Coot: 11 Oct (250) Norris Lake, Union Co. (CPN), unusually high number there; 11 Nov (1,500) CHL (KHD, LHD), max. Sandhill Crane: good number of reports from KNX area ("the best in several years") 2 Nov-7 Dec (at least 16 flocks totaling about 800 birds) Anderson, Hancock (24 on 7 Dec by Sam Venable is probably 1st county record), Meigs, Roane, Scott, Sevier Cos. & and KNC (fide CPN); 540 birds during Nov in CUC (RSD); KHD's annual crane survey not compiled at this writing, thus other records will be appended to the winter report.

Shorebirds: Lesser Golden-Plover: 20–25 Sep (1) AUS (RLK et al.); 1 Oct (1) BOL (MD, Joy Kyle). Piping Plover: 19–20 Aug (1) KSP (MWA, Boyd Sharp et

al.); 14–16 Sep (1) Boone Dam, WGC (BLC, RLK et al.), 1st JNC area record. American Avocet: 28 Aug (1) KSP (RJH); 23 Sep (1) AUS (BLC, MD, GWS, CFW). Greater Yellowlegs: 11 Nov (1) HRA (KHD, LHD), Irs. Spotted Sandpiper: 28 Oct (1) BOL (RLK), Irs. Sanderling: 13 Sep (1) EBF (CPN); 5–6 Nov (1) CHL (KHD et al.). Semipalmated Sandpiper: 13 Aug (50+) DOL (JAK), max. Western Sandpiper: 18 Aug (2) EBF (CPN); 23 Sep (4) AUS (BLC, MD, GWS, CFW). Least Sandpiper: 20 Nov (3) KSP (RLK, JWB), Irs. Baird's Sandpiper: 15 Sep (1) KSP (Albert M. Jenkins). Pectoral Sandpiper: 13 Aug (60) DOL (JAK), max; 12 Nov (5) HRA (JSL, BGM, Michael McMahan), Irs. Dunlin: 31 Oct–17 Nov (3) BOL (BLC et. al.); 5 Nov–EOP (max 82) HRA (KHD, LHD); 20 Nov (6) KSP (RLK, JWB). Buff-breasted Sandpiper: 18 Aug (2) EBF (Barry Fleming); 27–28 Aug (1) KSP (KHD, LHD, RJH). Short-billed Dowitcher: 27 Aug (1) NIL (RJH); 4 Sep (1) KSP (KDH). Common Snipe: 9 Sep (1) LST (BLC), ers; low numbers

reported. American Woodcock: 15 Oct (3) GNC (W. Ruth Nevius).

Gull-Woodpecker: Laughing Gull: 20 Sep (1) CHL (RJH). Bonaparte's Gull: 29 Oct (1) CRL (RLK), ers. Ring-billed Gull: 25 Aug (12) CRL (RLK); 20 Sep (2) AUS (RLK), earliest JNC area record ever by 4 days. Herring Gull: 25 Sep (1 ad) AUS (RLK), ers. BLACK-LEGGED KITTIWAKE: 30 Nov (1 im) Fort Loudoun Dam, Loudon Co. (\*RC), 7th state record. Caspian Tern: 27 Aug-4 Sep (2) KSP (KHD, LHD, JAK); 15/26 Sep (1) AUS (RLK); 17 Sep (2) NIL (RJH). Common Tern: 4 Sep (5) KSP (KHD, LHD); 5 Sep (1) NIL (RJH); 20 Sep (4) CHL (RJH); 24 Sep (96) FLL (MLD), record KNX area count; 5 Nov (1/1) Savannah Bay, HLC/HRA (KHD, LHD); above average showing. Forster's Tern: 13 Aug (6) BOL (RLK); 20 Aug-15 Sep (1-10) KSP (m. ob.); 27 Aug (4) CRL (RLK); 25 Sep (1) AUS (FJA); 15 Oct (1) KSP (ARH); 22 Nov (1) FLL (RC). Black Tern: 19 Aug-4 Sep (max 50 on 4 Sep) KSP (MWA, ARH et al.); 4 Sep (2/2) LST/AUS (RLK); 5 Sep (11) NIL (RJH); 20 Sep (3) CHL (RJH). Black-billed Cuckoo: 16 Sep (1) BOL (BLC, GWS); 20 Sep (1) AUS (RLK). Common Barn-Owl: yg fledged from a west KNC nest in mid Aug (fide JBO); fresh pellets regularly collected at 1 JNC site (FJA); early Nov (2) near Pikeville, Bledsoe Co. (Mark Patterson, TWRA), roosting in a barn. Common Nighthawk: 30 Sep (130) JNC (RLK), large number for that date; 4 Nov (1) JNC (RLK), latest ever in JNC area by 5 days. Redheaded Woodpecker: 27-28 Aug (3) CHA (RJH); 16 Sep-1 Oct (1) BOL (MD, GWS, CFW, BLC); 1 Oct (1) AUS (RLK, JWB, BLC); 2 Oct (1) Clairborne Co. (George W. McKinney); 8 Oct (1) GNC (fide Phine Britton).

Flycatcher-Waxwing: Yellow-bellied Flycatcher: 13 Sep (1, b) AUS (RLK). "Traill's" Flycatcher: 3-19 Sep (8, b) AUS (RLK), near average. Least Flycatcher: 5-30 Sep (6, b) AUS (RLK), slightly above average. Eastern Kingbird: 4 Sep (40) HRA (KHD), max. Tree Swallow: 6 Nov (1) FLL (MLD), Irs. Bank Swallow: 13 Aug (25) Nolichucky River, WGC (JWB). Cliff Swallow: 25 Sep (1) AUS (FJA), Irs. American Crow: 20 Nov (12,000) I-40 near CUC-Roane Co. line (Douglas B. McNair), at roost in young pines. Common Raven: 1, 9 Oct (1) AUS (RLK); 10, 11 Oct (1) BOL (BLC); low elevation sightings, probably same bird. Redbreasted Nuthatch: 15 Nov (1) NOR (CPN), only report. House Wren: 15 Nov (1) CHA (Robin Rudd), Irs. Marsh Wren: 8 Sep-1 Oct (1-2) AUS (RLK), only report. Ruby-crowned Kinglet: 21 Sep (1) JNC (BLC), ers; good numbers reported. Veery: 4 b at NOR, half long-term average (CPN). Gray-cheeked Thrush: 20 b at NOR, slightly above long-term average & well above last 2 years (CPN). Swainson's Thrush: 41 b at NOR, about equal to long-term average & double last year's rate (CPN). Hermit Thrush: 16 b at NOR, record high number (CPN); high numbers present late Oct-Nov in KNX & JNC areas (fide CPN, RLK). American Robin: 1 Oct (2.100 flying over house in 1 hour at dusk) JNC (RLK), max. Gray Catbird: 18 Nov (2) JNC (GWS, CFW, BLC, MD), Irs. Water Pipit: 8 Oct (10) GNC (JAK), ers. Cedar Waxwing: 27 Aug (1 ad, 2 yg) KSP (KHD, LHD), continuation of summer breeding invasion.

Vireo-Warbler: White-eyed Vireo: 18 b at NOR, half the long-term average (CPN); well below average at AUS (RLK). Philadelphia Vireo: 18 Sep (1, b), NOR (CPN); 25 Sep (1) KNC (KTOS); 5 Oct (1) Blount Co. (JAK); 8 Oct (3) GNC (JAK). Red-eyed Vireo: very low numbers at NOR, especially during Aug when a notable passage is usually detected (CPN). Orange-crowned Warbler: late Oct (2 b & 2 other reports) NOR (CPN); 27 Oct (2) CHA (RJH). Yellow Warbler: 6, 9 Sep (2, b) AUS (RLK); 17 Sep (2) KSP (ARH), Irs. Magnolia Warbler: 18 b at AUS, record high number (RLK). Yellow-rumped Warbler: 29 Sep (3) AUS (RLK), ers; record high of 55 b at NOR (CPN). Palm Warbler: 5 b at AUS, well below long-term average (RLK). Cerulean Warbler: 26 Sep (1, b) AUS (RLK), seldom seen in fall. Ovenbird: 19 Oct (1, b) AUS (RLK), Irs. Northern Waterthrush: 7 b at AUS, about average (RLK). Mourning Warbler: 2–11 Sep (3, b) AUS (RLK), above average. Common Yellowthroat: 3 Nov (1) AUS (RLK), Irs. Wilson's Warbler: 7–30 Sep (7, b) AUS (RLK), above average; 14 Sep (1) CUC (RSD). Canada Warbler: 24 Sep (1) CHA (RJH), Irs.

Bunting-Grosbeak: Indigo Bunting: 16 Aug (nest with 3 small yg) Jonesborough, WGC (RLK), rather late. Vesper Sparrow: 1 Oct/29 Oct-4 Nov (1/2-4) AUS (RLK); 12 Nov (1) HRA (BGM). Savannah Sparrow: 4 Sep (3) LST (RLK), ers. Grasshopper Sparrow: 1 Oct (1) AUS (RLK, BLC, JWB), Irs. SHARP-TAILED SPARROW: 1 Oct (1) AUS (RLK, BLC, JWB). Lincoln's Sparrow: 26 Sep-19 Oct (7, b) AUS (RLK), above average; 11 Nov (1) Telford, WGC (BLC, GWS), latest ever in JNC area by 2 days; 23 Nov (1) CHA (RJH). Swamp Sparrow: 23 Sep (1) AUS (GWS, CFW, MD, BLC), ers; 32 b at AUS, about average (RLK). White-throated Sparrow: 29 Sep (1, b) AUS (RLK), ers. White-crowned Sparrow: 15 Oct (1) LST (BLC), ers. Bobolink: 30 Aug (5) EBF (CPN), ers; low numbers in KNX & JNC areas (fide CPN, RLK). Purple Finch: 10 Oct (10) BOL (BLC), ers; very scarce. Pine Siskin: 30 Nov (2) Signal Mountain, HLC (JSL), only report. Evening Grosbeak: no reports.

Addenda: Merlin: 1 spent winter of 1987-88 at Kingsport (George Larkin, ph. fide FJA).

Locations: AUS—Austin Springs, Washington Co.; BOL—Boone Lake, Sullivan & Washington Cos.; CHA—Chattanooga; CHL—Chickamauga Lake, mainly Hamilton Co.; CRL—Cherokee Lake, Hamblen & Hawkins Cos. portion; CUC—Cumberland Co.; DOL—Douglas Lake, Jefferson and Cocke Cos., EBF—Eagle Bend Fish Hatchery, Anderson Co.; FLL—Fort Loudoun Lake, mostly Knox Co.; GNC—Greene Co.; HLC—Hamilton Co.; HRA—Hiwassee River Area, primarily Meigs Co., but also Bradley, McMinn & Rhea Cos; JNC—Johnson City; KNC—Knox Co.; KNX—Knoxville; KSP—Kingston Steam Plant, Roane Co.; LST—Limestone, Washington Co.; NIL—Nickajack Lake, Hamilton Co.; NOR—Norris, Anderson Co.; WBL—Watts Bar Lake, Rhea & Roane Cos.; WGC—Washington Co.

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EASTERN MOUNTAIN REGION—Total rainfall for this 4-month period was near normal for the months involved, but the overall year's precipitation was still about 10 inches below normal. Temperatures in August and September were hotter than average, but October and November were normal. The first killing frost for the area came on 8 October, which is average for the period.

Sightings of birds of prey were more numerous than average, while waterfowl and shorebird sightings were considered below average. The winter finch arrival had not materialized by the end of the period (which is unusual) and only a very few scattered reports were received by this compiler.

Loon-Eagle: Common Loon: 6 Nov (18) WATL (GDE); 13 Nov (7) WATL (GOW). Pied-billed Grebe: 18 Sep (1) Ripshin Lake, CRC (GDE), ers. Double-crested Cormorant: 20 Oct (14) flying over Buffalo Mtn., WGC and 18 Nov (1) WATL (BLC et al.) Great Egret: 31 Aug (1) WATR (GOW). Tundra Swan: 30 Oct-8 Nov (1) WATR (GDE et al.). American Black Duck: 20 Nov (2) WIBL (GOW), ers, later than normal. American Wigeon: 21 Oct-EOP (3-5) WATR (GDE & CFW). Ring-necked Duck: 5 Nov (7) WIBL (GOW), ers. Lesser Scaup: 6-8 Nov (2) WIBL (GDE & CFW), ers. Bufflehead: 1 Nov (2) WIBL (GDE), ers. Hooded Merganser: 6 Nov (6) WATR (GOW); 18 Nov (4-5) WATR & Ripshin Lake, CRC (CFW). Black Vulture: 25 Sep (1) Eliz (GDE); 24 Oct (3) Siam Valley, CRC (CFW). 27 Oct (3) WIBL (GDE). Turkey Vulture: 10 Oct (1,000+) Townsend, BLC (Hedy Woods). Osprey: 30 Nov (1) WATL (RLK), late. Northern Harrier: 1 Oct (3) Eliz (LHTOS); 14 Oct (1) Buffalo Mtn. (BLC); 22 Oct (1) RzFm (GDE). Bald Eagle: 29 Sep (1) Look Rock, BLC (ARH); 22 Nov (1) RM (BLC).

Hawk-Swallow: Sharp-shinned Hawk: 8 separate reports during period, which is about average. Cooper's Hawk: 5 separate reports, which is average. NORTH-ERN GOSHAWK: 15 Aug (1) RM (Tom Laughlin); 2 Sep (1) Bristol (GDE); 1 Oct (1) Ripshin Mtn., CRC (FJA); 11 Nov (1) WATL (DJS). Red-shouldered Hawk: 3 Nov (2) Buffalo Mtn. (BLC). Broad-winged Hawk: 19 Sep (206) Buffalo Mtn. (BLC); 19 Sep (100) Erwin, Unicoi Co. (GWS). MERLIN: 11 Oct (1) Milligan College, WGC (GOW & Richard D. Lura). PEREGRINE FALCON: 24 Sep (1) Look Rock, BLC (RC, DJS); 29 Sep (1) Look Rock, BLC (ARH). Sanderling: 27 Aug (1) RC (FJA). Semipalmated Sandpiper: 21–27 Aug (1–3) RC (RLK, FJA). Western Sandpiper: 27 Aug (1) RC (FJA). Least Sandpiper: 21 Aug (2) RC (RLK). BAIRD'S SANDPIPER: 27 Aug (2) RC (FJA). Caspian Tern: 21 Aug (1) RC (RLK). Barred Owl: 31 Aug-8 Oct (1 regular) Hunter, CRC (GOW et al.). Common Nighthawk: 27 Aug (1) Grassy Ridge, RM, 1860 m elevation (EHS); 14 Oct (2) Gatlinburg (Michael Owens), late. Ruby-throated Hummingbird: 12 Oct (1) Eliz (GDE), Irs. Red-headed Woodpecker: 24 Sep (4) Look Rock, BLC (ARH, RC). Purple Martin: 23 Sep (1) Eliz (GDE); 24 Sep (1) Look Rock, BLC (ARH), both very late sightings. Northern Rough-winged Swallow: 22 Sep (2) RM, 1,765 m elevation (RLK).

Raven-Vireo: Common Raven: 1-5 regular on RM during period (LHTOS). Red-breasted Nuthatch: small numbers present on RM throughout period (LHTOS). Brown Creeper: 1 Oct (1) Unicoi Co. (GWS, SG), ers. Veery: 10 Sep (1) RM (GOW), Irs. Grey-cheeked Thrush: 26 Sep-9 Oct (5 separate sightings) Eliz area (LHTOS). Swainson's Thrush: very numerous during entire period; 1 Oct (60) Eliz Fall Count (LHTOS). Hermit Thrush: 20 Oct (4) Buffalo Mtn. (RLK), ers. Water Pipit: 22 Nov (2) RM (RLK). Cedar Waxwing: 10 Sep (2 ad feeding 3 yg) Heaton Creek, RM (RLK), late breeding record. Loggerhead Shrike: 8 Nov (1) Eliz (GOW). SOLITARY VIREO: 14 Oct (1 ad with downy yg) Clingmans Dome, Great Smoky Mountains National Park (Michael Owens), a very late breeding record (details should be published—ed.). Philadelphia Vireo: 1 Oct (2) RM (FJA).

Warbler-Grosbeak: Blue-winged Warbler: 10 Sep (1) RMSP (LHTOS). Goldenwinged Warbler: 10 Sep (1) RMSP (LHTOS), Irs. ORANGE-CROWNED WARBLER: 1 Oct (1) RM (FJA). Black-throated Green Warbler: 20 Oct (2) Buffalo Mtn. (RLK), Irs. Palm Warbler: 10 Sep (1) RM (LHTOS), ers. Canada Warbler: 19 Sep (1) Erwin, Unicoi Co. (GWS), Irs. Blue Grosbeak: 1 Oct (1) Heaton Creek,

RM (FJA), Irs. Chipping Sparrow: 21 Nov (3) Eliz (GDE), Irs. Northern Oriole: 1 Oct (1) Eliz (Lois Herndon), Irs. Purple Finch: very scarce during end of Nov (LHTOS). Red Crossbill: 9 Nov (2) Buffalo Mtn. (RLK). Pine Siskin: 29 Oct (3) Townsend, BLC (JBO). Evening Grosbeak: 29 Nov (2–4) Pigeon Forge, Sevier Co. (JBO).

Locations: BLC—Blount Co.; CRC—Carter Co.; Eliz—Elizabethton area; RC—Roans Creek, Johnson Co.; RM—Roan Mountain, Carter Co.; RMSP—Roan Mountain S.P., Carter Co.; RzFm—Razor Farm, Carter Co.; WATL—Watauga Lake, Carter Co.; WATR—Watauga River, Carter Co.; WGC—Washington Co.; WIBL—Wilbur Lake, Carter Co.

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#### INSTRUCTIONS TO AUTHORS

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

SUBMISSIONS: The original and, if feasible, two copies of the manuscript should be sent to the Editor: T. David Pitts, Biology Department, University of Tennessee at Martin, Martin, TN 38238. Manuscripts that have been published in other journals should not be submitted.

MATERIAL: The subject matter should relate to some phase of Tennessee ornithology. It should be original, factual, concise, and scientifically accurate.

STYLE: Both articles and short notes are solicited; recent issues of The Migrant should be used as a guide in the preparation of manuscripts. Where more detail is needed, reference should be made to the Style Manual for Biological Journals; this book is available at many public libraries and from the American Institute of Biological Sciences, 1401 Wilson Boulevard, Arlington, VA 22209.

COPY: Manuscripts should be typed double spaced on  $8.5 \times 11''$  paper with adequate margins for editorial notations. Tables should be prepared on separate sheets with appropriate title and column headings. Photographs intended for reproduction should be sharp with good contrast on glossy white paper; black and white photographs will usually reproduce better than color photographs. Weights, measurements, and distances should be in metric units. Dates should be in "continental" form (e.g., 16 March 1968). Use the 24-hour clock (e.g., 0500 or 1900).

NOMENCLATURE: The common and scientific names of a species should be given the first time it is mentioned. The scientific name should be underlined. Names should follow the A.O.U. Check-list of North American Birds (1983 edition or subsequent supplements).

TITLE: The title should be concise, specific, and descriptive.

ABSTRACT: Manuscripts of five or more typed pages should include an abstract. The abstract should be less than 5% of the length of the manuscript. It should include a brief explanation of why the research was done, the major results, and why the results are important.

LITERATURE CITED: List all literature citations in a Literature Cited section at the end of the text. Text citations should include the author and year.

IDENTIFICATION: Manuscripts including reports of rare or unusual species or of species at atypical times will be reviewed by the TOS Certification Committee before publication in The Migrant. Verifying evidence should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying the identification, and reference works consulted.

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