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POINT COUNT SURVEYS OF BREEDING BIRDS IN THE OBED WILD AND SCENIC RIVER

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During early to mid-June of each summer from 1998 to 2003, Barbara H. Stedman conducted point count surveys to document the breeding birds of the Obed Wild and Scenic River (OWSR), the only federally designated wild and scenic river in Tennessee. Annual surveys covered 50 nonrandomly selected plots, at each of which birds were counted for 5 minutes. In 2004, a federally mandated inventory of the park's avifauna began, using a set of 30 mainly randomly selected plots, each surveyed for 10 minutes. The 30 plots established in 2004 may be surveyed in the future. However, the 50 previously established plots are not scheduled for future surveys (except for plots common to both sets of surveys). Consequently, results from the 50 point-count surveys conducted 1998 to 2003 are presented here because they are likely to possess historical value as baseline data and because they suggest immediate land management considerations.

We have published the raw data, including the number of plots at which each species was registered each year and the total number of individuals counted each year, from the point count surveys conducted 1998-2002 in the OWSR elsewhere (Stedman and Stedman 2002), but point count survey results for 2003 (Table 1), as well as discussion of the overall results for six years, are presented here for the first time. Our data analysis was simple, based only on obtaining totals of

Table 1. Total numbers of individuals recorded at 50 point count plots, each surveyed for 5 minutes per annum, in the Obed Wild and Scenic River, 1998-2003 (common names of Neotropical migrants are boldfaced).

Species	Scientific Name	1998	1999	2000	2001	2002	2003
Wood Duck	Aix sponsa	2	3	9.73	_	(2)	
Ruffed Grouse	Bonasa umbellus	3	1	1.		1	1.
Wild Turkey	Meleagris gallopavo	1	3	1	2	3	68
Northern Bobwhite	Colinus virginianus	1	1	120	1	1	120
Great Blue Heron	Ardea herodias	1		3	1	1	1
Green Heron	Butorides virescens	1	-	2.5	8	8738	1.7
Black Vulture	Coragyps atratus	2	-	1	1	-	1
Turkey Vulture	Cathartes aura	16	3	8	4	2	3
Osprey	Pandion haliaetus	1	1	(47)	Ξ	-	-
Red-shouldered Hawk	Buteo lineatus	4	-	1	4	2	3
Broad-winged Hawk	Buteo platypterus	6	5 7 3	676	1	4	2
Red-tailed Hawk	Buteo jamaicensis	2	-	12	2	(2)	2
Killdeer	Charadrius vociferus	1	1	-	-	1-1	1
American Woodcock	Scolopax minor	7	1	-	-	1	8.53
Mourning Dove	Zenaida macroura	9	23	8	16	20	20
Black-billed Cuckoo	Coccyzus erythropthalmu	s 1	-	-	-	1	-
Yellow-billed Cuckoo	Coccyzus americanus	11	17	8	13	9	7
Eastern Screech-Owl	Otus asio	2	23	323	1	-	-
Great Horned Owl	Bubo virginianus	2	-	200	2	1	+
Barred Owl	Strix varia	2	1	2	2	1	-
Chimney Swift	Chaetura pelagica	5	2	-	-	3	2
Ruby-throat. Hummingbird	Archilochus colubris	1	-	2	î	2	1
Belted Kingfisher	Ceryle alcyon	3	2	3	5	5,	2
Red-headed Woodpecker	Melanerpes erythrocephal	us -	1	1	-	1	-
Red-bellied Woodpecker	Melanerpes carolinus	4	3	7	9	12	6
Downy Woodpecker	Picoides pubescens	8	4	4	6	9	10
Hairy Woodpecker	Picoides villosus	9	3	7	4	10	17
Northern Flicker	Colaptes auratus	3	3	3	3	5	4
Pileated Woodpecker	Dryocopus pileatus	24	20	17	29	23	21
Eastern Wood-Pewee	Contopus virens	5	8	8	9	3	3
Acadian Flycatcher	Empidonax virescens	39	60	51	42	31	35
Eastern Phoebe	Sayornis phoebe	12	14	12	12	9	8

Species	Scientific Name	1998	1999	2000	2001	2002	2003
Great Crested Flycatcher	Myiarchus crinitus	5	2	3	1	3	4
Eastern Kingbird	Tyrannus tyrannus	1	1	-	-	20	0
White-eyed Vireo	Vireo griseus	8	14	18	16	10	10
Yellow-throated Vireo	Vireo flavifrons	6	4	4	10	2	1
Blue-headed Vireo	Vireo solitarius	14	30	22	40	41	64
Red-eyed Vireo	Vireo olivaceous	162	226	169	154	119	124
Blue Jay	Cyanocitta cristata	24	24	32	35	26	44
American Crow	Corvus brachyrhynchos	61	36	37	47	37	46
Purple Martin	Progne subis	2	1	**	-	2	-
N. Rough-winged Swallow	Stelgidopteryx serripennis	6	1	7	7	4	5
Barn Swallow	Hirundo rustica	2	2	2	-		-
Carolina Chickadee	Poecile carolinensis	57	41	36	39	28	35
Tufted Titmouse	Baeolophus bicolor	51	39	43	33	41	30
White-breasted Nuthatch	Sitta carolinensis	10	9	10	26	18	13
Carolina Wren	Thryothorus ludovicianus	34	30	37	25	38	51
Blue-gray Gnätcatcher	Polioptila caerulea	11	11	8	13	12	6
Eastern Bluebird	Sialia sialis	1	1	2	2	2	2
Wood Thrush	Hylocichla mustelina	26	22	32	33	35	33
American Robin	Turdus migratorius	2	3	2	1	5	1
Gray Cathird	Dumetella carolinensis	1	2	-	_	_	1
Brown Thrasher	Toxostoma rufum	3	5	1	1	0	4
Cedar Waxwing	Bombycilla cedrorum	1	1	-	4	_	2
Northern Parula	Parula americana	10	10	8	14	14	8
Black-throated Green Warbler	Dendroica virens	61	38	36	69	39	36
Yellow-throated Warbler	Dendroica dominica	19	14	15	16	19	13
Pine Warbler	Dendroica pinus	12	8	7	8	13	4
Prairie Warbler	Dendroica discolor	23	19	23	13	9	3
Cerulean Warbler	Dendroica cerulea	-	1	1		+1	1
Black-and-white Warbler	Mniotilta varia	58	22	66	28	23	31
Worm-eating Warbler	Helmitheros vermivorum	43	30	24	32	32	29
Swainson's Warbler	Limnothlypis swainsonii	4	2	2	4	3	2
Ovenbird	Seiurus aurocapillus	78	56	66	34	50	39
Louisiana Waterthrush	Seiurus motacilla	10	11	17	14	14	17
Kentucky Warbler	Oporornis formosus	6	3	6	8	4	3
Common Yellowthroat	Geothlypis trichas	11	5	5	1	2	1
Hooded Warbler	Wilsonia citrina	85	70	79	75	81	50

Species	Scientific Name	1998	1999	2000	2001	2002	2003
Yellow-breasted Chat	Icteria virens	13	6	7	10	6	3
Summer Tanager	Piranga rubra	2	3	4	1	1	1
Scarlet Tanager	Piranga olivacea	36	35	39	46	37	33
Eastern Towhee	Pipilo erythrophthalmus	11	12	12	15	11	8
Chipping Sparrow	Spizella passerina	2	3	1	37	1	3
Field Sparrow	Spizella pusilla	2	2	1	3	8	1
Song Sparrow	Melospiza melodia	3	-	8	2	-	-
Northern Cardinal	Cardinalis cardinalis	35	30	31	28	36	48
Blue Grosbeak	Passerina caerulea	=	2	2	14	1	=
Indigo Bunting	Passerina cyanea	55	47	62	65	49	37
Eastern Meadowlark	Sturnella magna	12	-	1	-	-	-
Common Grackle	Quiscalus quiscula	1	=	1	2	1	2
Brown-headed Cowbird	Molothrus ater	3	4	-	-	1	1
American Goldfinch	Carduelis tristis	4	10	7	11	9	•
Total Species/Year		77	68	64	63	67	64

individuals seen or heard during the entire period of each point count at unlimited distance and roughly comparing these totals from year to year. However, the data sheets resulting from the surveys are available at the park resource management office for other types of analysis by interested researchers in the future; these data sheets have also been submitted to the Partners in Flight (PIF) program coordinated by the Tennessee Wildlife Resources Agency (TWRA).

Below we offer comments on several aspects of the point count surveys: plot location; procedures followed to record birds at each plot; general results of the point count surveys, including potential biases in the results; and a way in which habitat management in the park might be changed in light of survey results.

OBED WILD AND SCENIC RIVER

We have previously described the OWSR, including a general description of the location of the plots where point count surveys of birds were conducted (Stedman and Stedman 2002), so it will suffice here to state that the park is situated along the gorges of Clear Creek, Daddy's Creek, and the Obed River in Cumberland and Morgan counties. We want to draw attention to four prominent features of the park: it is small (c. 2100 ha, only about 60% being currently in the public domain), narrow (often extending less than 0.5 km from the river bank to the park boundary), linear (being c. 54 km long), and possesses high relief (many canyon walls exceeding 100 m in height). Forest types in the park include riparian

forest along the rivers in the bottom of the gorges, white pine-hemlock forest along the lower slopes of the gorges, deciduous (including mixed mesophytic) forests along the upper slopes of the gorges, and several forest types associated with conifers along the rims of the gorges; some of these forest types have undergone recent reductions as explained below.

POINT COUNTS

TWRA coordinates PIF activities and therefore point-count surveys conducted in Tennessee. In 1998 TWRA recommended the establishment of a minimum of 50 plots per site surveyed (J. York pers. com.). When the point-count survey was initiated in the OWSR, this minimum was difficult to achieve because of the park's small size and limited suitable access to many areas within it. Because of these factors and several others noted below, the locations of the 50 plots established in the OWSR were determined in a nonrandom manner.

In determining the location of plots, B. Stedman gave consideration to the following matters: avoidance of areas subject to noise generated by rapids; bunching of plots to allow half a dozen or more to be surveyed in a single morning session, a consideration that worked against the next item in this list; and distributing plots along the entire river corridor to allow sampling of as many sites and habitats within the OWSR as possible. Plots were generally located away from roads but were often placed along trails or unofficial footpaths.

The locations of about half of the original 50 point-count plots were pinpointed using global positioning system (GPS) equipment. These location data are available from the Resource Management Office, OWSR (L. Morgan-Smith pers. com.). Technical difficulties prevented the acquisition of GPS data at the remaining plots.

PIF protocols based largely on those recommended by Hamel (1992) were followed in surveying the 50 plots in the OWSR. Birds were surveyed once during the period from 1-20 June at each plot for a five-minute period (segregated into initial three-minute [1-3] and closing two-minute [4-5] segments), although a more recent version of the point count protocol requires a 10-minute counting period broken into segments of three (1-3), two (4-5), and five (6-10) minutes (Hamel et al. 1996). All birds were recorded as occurring at one of two distance intervals — < 50 m; > 50 m — although Hamel et al. (1996) recommend three distance intervals - 0-25 m; 25-50 m; and > 50 m - and an even more recent version of the point count protocol requires recording birds at four distance intervals — 0-25 m; 25-50 m; 50-100 m; and >100 m (W.C. Hunter pers. com.). Care was taken to avoid duplicate counting of individuals, by conservatively counting, particularly when plots were located at the minimum allowable distance (250 m) from one another. During each year of the survey, 5-6 morning sessions of approximately 3 hours each were required to survey all 50 plots; daily sessions typically started about 0600 and ended by 0920 EDT.

Because of the nature of its topography, the OWSR offers some challenges to field workers conducting point-count surveys. The main river gorge often offers

obstacles to effective access to, and hearing of, birds, including steep slopes that cause sound waves to be amplified or diminished in unexpected ways and rock promontories that obstruct sound waves. In addition, noise caused by rapids often makes bird vocalizations difficult to hear at sites within 100 m of the river, sometimes farther, depending on the volume of water in the river.

RESULTS AND DISCUSSION

During the six years of point-count surveys in the OWSR, 82 species of birds were observed (Table 1), a number comparing favorably with the total of 91 species registered by Butler (2001) during point-count surveys in north-central Tennessee. Butler's work, resulting in one of very few published point-count surveys from Tennessee available for comparison, was conducted during three breeding seasons (1993-1995), involved a larger set of points (2,021), was distributed over a larger area (500,000 ha) at a generally lower average elevation, and covered a greater diversity of habitats than was the case with the present survey.

Neotropical migrants (n=40, boldfaced in Table 1) formed a substantial percentage (c. 49%) of species registered during these point-count surveys. Given the high percentage of the park that is covered by natural vegetation communities and the corresponding low percentage of the park that has been replaced by human-altered land cover, the park bird community would be expected to possess a large Neotropical migrant component, as discussed by Butler (2001). Neotropical migrants formed a similarly large percentage (46%) of breeding birds detected on roadside point-count surveys in the Big South Fork National River and Recreation Area, another predominantly forested park located just north of the OWSR in Fentress, Morgan, Pickett, and Scott counties, Tennessee, and McCreary County, Kentucky (Stedman 1998).

The data resulting from the OWSR point count surveys conducted 1998 to 2003 were obtained from plots that were not randomly selected. Consequently, it is possible that some survey results portray the bird community of the park in a biased manner although the degree to which nonrandom plot selection biases the results is difficult to determine. The potential presence of some bias in the results, although assumed to be negligible by the authors, should be considered by anyone using the data in future analyses; in particular, the nonrandom nature of plot location could mean that "quantitative inferences about trends over time can't be made for areas outside the sampling points themselves" (R. Emmott pers. com.). Data from future point-count surveys in the park will be acquired from plots that were selected more randomly than the plots selected for the present point count surveys. A comparison of results acquired in the future with the present results may shed light on the issue of bias potentially created by nonrandom selection of plots.

Although the exact number of species that might breed in the OWSR in a typical six-year period is unknown, it is probably not much more than 100, given the small size of the park and the fairly limited habitats found within it. We have

elsewhere (Stedman and Stedman 2002) listed 94 species as collectively breeding in the OWSR and the Big South Fork National River and Recreation Area, a figure that lends credence to the theoretical limit of 100 noted above. Consequently, the observation of 82 species using the point-count method of surveying birds from 1998 to 2003 testifies to the overall efficiency of this survey method for detecting breeding birds, as well as to the diversity of the avifauna inhabiting the OWSR. In order to increase the detection of breeding species in the park, B. Stedman found it necessary to supplement the point-count method with other, more time and labor intensive, bird survey methods, including nest searches and surveys focused on nocturnal species (results not presented here).

During the early to mid-1990s two large wildfires — one along Clear Creek near Lilly and the other along the Obed River near the confluence with Clear Creek — led to opening of the forest and subsequent growth of a fairly substantial amount of shrub-scrub habitat by the mid- to late 1990s. In addition, another shrub-scrub site was created in the mid-1990s as a result of land clearing associated with development of a public use area in the vicinity of Lilly Bluff. Observation of species breeding in shrub-scrub habitat was high during the late 1990s by comparison with observation of such species in later surveys. By the breeding season of 2002 most of the shrub-scrub sites where plots for point counts were located had matured to young forest with little or no shrub-scrub replacement or maintenance.

Because the data obtained during this six-year point-count survey are probably not statistically robust, conclusions drawn from analysis of the data must be guarded ones. We allow the reader to draw most of these conclusions, but we want to draw attention to the reduction in registrations of three obligate scrubshrub breeding birds — Prairie Warbler, Common Yellowthroat, and Yellowbreasted Chat — during the half-decade of the survey (Table 1). We note that reduced registrations of these species are certainly correlated with reduced presence of shrub-scrub habitat in the park during the same time interval and may well be caused by that reduction.

The reduction in the shrub-scrub component in the OWSR by 2002-2003 may not only have affected species that typically breed in this habitat, but it may also have had an effect on species, such as wood warblers, that breed in nearby mature forest and that benefit from adjacent shrub-scrub habitat by using the latter as a "nursery" area for fledglings and adults. The high quality cover and prey available in shrub-scrub habitat are thought to allow these species to attain greater post-fledging survival rates than the rates occurring in mature forest (Faaborg 2002).

One additional factor regarding shrub-scrub habitat in the OWSR needs mention. During the last years (2001-2003) of the survey, an outbreak of southern pine beetle (*Dendroctonus frontalis*) killed a large fraction of the mature pines in the park. At many point-count plots, pines were originally the dominant species of the forest. At some of these plots, the loss of pines opened up the mature forest

component in the park by creating areas resembling "clear-cuts" that led to the formation of a small amount of shrub-scrub habitat. As a result of the beetle outbreak, the overall forest structure in the park was greatly changed from areas where coniferous or mixed forest dominated to areas dominated by deciduous forests (on the upper slopes of the gorge and adjacent, higher flat areas) or deciduous-hemlock forests (on the lower slopes of the gorge).

We wish to echo Robinson et al. (1995) in pointing out that naturally created patches of shrub-scrub habitat (i.e., from fires and insect outbreaks) are currently not known to cause the kinds of decreases in the nesting success of shrub-scrub bird species or deep forest bird species that are associated with homogenic fragmentation at the level of 30% of the landscape. At the landscape level, human-caused fragmentation and alteration of habitat are widely known to affect breeding bird populations in a negative manner (Robinson et al. 1995). We would be remiss if we did not point out that homogenic fragmentation of habitat near most of the OWSR's boundaries (i.e., nearly all the park's boundaries except those adjacent to the Catoosa Wildlife Management Area) is an ongoing, probably escalating, process that could eventually result in declines of both shrub-scrub species and deep forest species adjacent to, and possibly within, the park because of its narrow, highly linear nature.

In view of continental declines documented for several species of Neotropical migrants that are obligate breeders in shrub-scrub habitat (Pardieck and Sauer 2000; W.C. Hunter et al. 2001), including the previously mentioned Prairie Warbler, some consideration might be given by OWSR management personnel to maintaining shrub-scrub habitat at selected sites, including the Lilly Bluff area, within the park. Prescribed burns are one means to achieve this objective; another means might be to allow naturally occurring fires to burn themselves out rather than to suppress them as quickly as possible if such fires occur at sites where shrub-scrub habitat requires maintenance. Neither of these practices is yet part of the park's management policy regarding fires or habitat management (N. Keohane, pers. com.).

As we enter an era when intensive efforts are being undertaken to inventory and monitor many taxa, including birds, on public lands, projects such as the one described above will become increasingly important to conduct. It will be equally important to report their results, especially if they are to have a bearing on future management practices on public lands.

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LITERATURE CITED

- BUILER, J.R. 2001. Multi-scale breeding bird and land-cover associations. J. Tenn. Acad. Sci. 76: 102-113.
- FAABORG, J. 2002. Saving Migrant Birds: Developing Strategies for the Future. University of Texas Press, Austin, Texas.
- HAMEL, P.B. 1992. The Land Manager's Guide to Birds of the South. The Nature Conservancy and U.S. Forest Service, Atlanta, Georgia.
- Hamel, P.B., W.P. Smith, D.J. Twedt, J.R. Woehr, E. Morris, R.B. Hamilton, and R.J. Cooper. 1996. *A Land Manager's Guide to Point Counts of Birds in the Southeast*. Gen. Tech. Rep. SO-120. New Orleans, LA: U.S.D.A. Forest Service, Southern Research Station. 39 pp.
- HUNTER, W.C., D.A. BUEHLER, R.A. CANTERBURY, J.L. CONFER, and P.B. HAMEL. 2001. Conservation of disturbance-dependent birds in eastern North America. Wildl. Soc. Bull. 29: 440-455.
- Pardieck, K.L., and J.R. Sauer. 2000. The 1995-1999 summary of the North American Breeding Bird Survey. *Bird Populations* 5: 30-48.
- ROBINSON, S.K., F.R. THOMPSON III, T.M. DONOVAN, D.R. WHITEHEAD, and J. FAABORG. 1995. Regional forest fragmentation and the nesting success of migratory birds. Science 267: 1987-1990.
- STEDMAN, S.J. 1998. Breeding bird survey of the Big South Fork National River and Recreation Area, Kentucky and Tennessee, 1994-1996. *The Kentucky Warbler* 74 (2): 35-43.
- STEDMAN, S.J., and B.H. STEDMAN. 2002. Notes on the Birds of the Big South Fork National River and Recreation Area and Obed National Wild and Scenic River. Privately printed at Cookeville, Tennessee.

TOWNSEND'S WARBLER IN NORTHEAST TENNESSEE

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On the morning of 13 January 2004, at about 09:45 EST, I observed an adult male Townsend's Warbler (*Dendroica townsendi*) near the north end of the bridge over Wilbur Lake, in Carter County, Tennessee. This bird responded to spishing in the company of a mixed-species flock which included Carolina Chickadees (*Poecile carolinensis*), Tufted Titmice (*Baeolophus bicolor*), Golden-crowned Kinglets (*Regulus satrapa*), a Ruby-crowned Kinglet (*R. calendula*), and a Brown Creeper (*Certhia americana*).

The warbler was observed for 6-8 minutes in good light at close range (20-40 ft/6-12 m) through a Zeiss 10x binocular. The temperature was about 25° F (-4° C) under a clear sky. The elevation at this site is 1655 ft (505 m). The observation occurred at the edge of mixed forest, with several Virginia Pine (Pinus virginiana), Shortleaf Pine (P. echinata) and White Pine (P. strobus) trees present among numerous Tulip Poplars (Liriodendron tulipifera) and various oaks (Quercus spp.). The warbler spent part of this brief period foraging by gleaning and hover-gleaning around the outer limbs and needle clusters of the pines at a height of 5-25 ft (~1.5-7.5 m) above the ground. Although usually found in the tops of tall conifers during the breeding season, this species forages at lower levels and in a broader variety of trees during migration and winter (Dunn and Garrett 1997). No vocalizations by the warbler could be discerned. Attempts to relocate this bird were made later that same day and on following days by myself and others, but without success.

This warbler had a blackish crown, a black throat, and bright yellow in the face outlining a black cheek patch. The breast was bright yellow, and the belly was white. Two rows of bold black streaks extended along the sides. The back was greenish with thin black streaks. The wings were dark grayish with two bold white wing bars. The tail was dark above. The bill and legs were black. I judged this individual to be an adult male on the basis of the bold face pattern and solid black bib on the throat, whereas the throat of a female or first fall (first basic plumage) male is largely yellow. Having seen this species a few times within its breeding range, I immediately recognized this bird as a Townsend's Warbler. Although superficially similar to the other members of the Black-throated Green Warbler (D. virens) complex, Townsend's is readily separated from the others by its black cheek patch and yellow breast.

This sighting constitutes the third report of Townsend's Warbler in Tennessee. The first was seen on 3 December 1994 on Rich Mountain Road in Blount County (*Aud. Field Notes* 49:148, 1995) and the second was seen just four weeks later on 30 December 1994 at Pickwick Landing State Park in Hardin County (*Aud. Field Notes* 49:158, 1995). Both of these sightings were accepted by the Tennessee Bird Records Committee (Knight 1996), as was the sighting reported here (M. Todd, pers. comm.). However, physical evidence (photo or specimen) is still lacking for this species in Tennessee.

Townsend's Warblers breed in the Pacific Northwest from Oregon, Idaho, and western Montana northwestward into Alaska and the Yukon. They winter in two areas: one along the Pacific coast from Washington through California and the other in the interior mountains from northern Mexico southward into Costa Rica. As migrants, they regularly occur as far east as western Texas and the Rocky Mountain region. Townsend's Warblers occur casually over much of eastern North America, mainly from fall through early winter or in spring (all distributional data from Dunn and Garrett 1997).

In reporting the first Virginia record, which was near the coast, Armistead (2002) cited 63 records from East Coast states and provinces from Newfoundland to Florida (plus Bermuda), with most records coming from the Northeast. Dunn and Garrett (1997) mention that there are about 20 records for the Midwest region, but only about 15 records for the Southeast, mostly from Florida. There are two accepted records for North Carolina, both coastal (LeGrand 2002); however, there also is an unresolved report from western North Carolina (LeGrand 1990). Both Georgia records are coastal (Beaton et al. 2003). Of three reports in Mississippi, two are coastal, but one is from Oxford (Turcotte and Watts 1999), only about 90 miles (~145 km) south of the Hardin County, Tennessee site. The species is unrecorded in West Virginia (Hall 1983), Kentucky (Palmer-Ball 2003), South Carolina (S.C. Bird Records Committee 2004), Alabama (G. Jackson, pers. comm.), and Arkansas (James and Neal 1986). Thus, it is clear that Townsend's Warbler is very rare in the Southeast, especially inland, with just the four reports mentioned above (MS - 1, TN - 3) occurring inland.

ACKNOWLEDGMENTS

My thanks to Greg Jackson for information on this species' status in Alabama and to Michael Todd for updates on TBRC action.

LITERATURE CITED

Armistead, G.L. 2002. Virginia's first Townsend's Warbler. Raven 73:61-65.

DUNN, J. and K. GARRETT, 1997. A Field Guide to the Warblers of North America. Houghton Mifflin, Boston.

BEATON, G., P.W. SYKES, Jr. and J.W. PARRISH, Jr. 2003. Annotated Checklist of Georgia Birds, fifth edition. Occasional Publ. No. 14, Georgia Ornithological Society.

HALL, G.A. 1983. West Virginia Birds. Carnegie Museum of Natural History Special Publication No. 7, Pittsburg.

JAMES, D.A. and J.C. NEAL. 1986. Arkansas Birds. Univ. of Arkansas Press, Fayetteville.

KNIGHT, R.L. 1996. Report of the Tennessee Bird Records Committee for 1995. Migrant 67: 37-42.

LEGRAND, H.E., Jr., (chairman). 1990. Report of the North Carolina Bird Records Committee, 1990. Chat 54:53-58.

LeGrand, H.E., Jr., (chairman). 2002. 2001 report of the North Carolina Bird Records Committee. Chat 66:1-6.

Palmer-Ball, B., Jr. 2003. Annotated Checklist of the Birds of Kentucky. Kentucky Ornithological Society.

SOUTH CAROLINA BIRD RECORDS COMMITTEE, 2004. The South Carolina bird list, Chat 68:9-18.

TURCOTTE, W.H. and D.L. WATTS. 1999. Birds of Mississippi. Univ. Press of Mississippi, Jackson.

FALL 2004 NORTH AMERICAN MIGRATION COUNTS

Compiled by RON HOFF 282 Hackworth Ln. Clinton, TN 37716

This report summarizes the Tennessee Fall North American Migration Count, which is always held on the third Saturday in September as part of the International Migratory Bird Day, an event designed to draw attention to migrating birds. This year there were 9 counties censused by 65 observers. They tallied over 24,000 individual birds, which represented 165 species (Table 1). This was 15 more species than were recorded in the 2003 fall count. Hurricane Ivan had just passed through the eastern portion of the state during the two days before the count, dumping heavy rains, and this may have affected some of the counts. Several compilers remarked that species diversity and numbers were lower than usual. On count day, the weather was generally mild, and most counts experienced some wind. Temperatures ranged from 53-88° F. A couple of notable finds for the count were an Alder Flycatcher in Shelby Co. and a Clay-colored Sparrow in Blount Co.

COUNTY SUMMARIES

Anderson County – Time: 0710-1315. Weather: clear, turning partly cloudy with winds 0-5 mph; 55-72" F. Observers noted that the birding activity this day was slow in general. Migrant warblers were notably absent, with only 3 species recorded. A record 197 Canada Geese were noted at Eagle Bend Fish Hatchery. Other nice finds included a Merlin in the eastern part of the county and a Semipalmated Plover at the fish hatchery. Observers: Ron Hoff (compiler: 282 Hackworth Ln., Clinton, TN 37716; rondolly@esper.com), and Dollyann Myers.

Blount County – Time: 0515-2030. Weather: partly cloudy to mostly sunny; 55-75° F. Observers recorded 10 more species this year than in 2003. Highlights included Red-necked Phalarope, Bank Swallow, Brown-headed Nuthatch, Loggerhead Shrike, Clay-colored Sparrow, and a Bobolink. Observers: Jean J. Alexander (compiler: 3908 Riverview Dr., Maryville, TN 37804; jjadmj@infionline.net), Warren Bielenberg, Kathy Bivens, Paul D. Hartigan, Kim J. Henry, Stephen P. Henry, Thomas D. Howe, James R. Human, David M. Johnson, Jon A. Koella, Bill Smith, and June D. Welch.

Greene County – No times given. Weather: mostly cloudy in the a.m. turning mostly sunny in p.m. with winds N 5-10 mph; 60-75° F. Highlights included Cattle Egret, Common Merganser, Eurasian Collared-Dove, Common Raven, Loggerhead Shrike, Philadelphia Vireo, and Blue-winged, Orange-crowned, and Canada Warblers. Observers: Ben, Orland, and Phine Britton, King Gaut, Ruth Greenwood, Juanita and Lenard Heckert, Don Holt, Jim Holt (compiler: 311 Colonial Circle, Greenville, TN 37745; jimbouh@adelphia.net), Don Miller, Fawn and Velda Moore, Richard and Willie Ruth Nevius, JoAnn and Larry Routledge, and Virginia Williams.

Loudon County – Time: 0650-0720, 1000-1130. Weather: clear skies but wind was gusting to 20 mph; 60° F. This was a partial count from the 4 observers. Notable finds

included a Bald Eagle and 6 Bobolinks. Observers: Carole Gobert, Tony King, Charlie Muise, and Autumn Nauman. Compiled by Ron Hoff (see Anderson County).

Marion County – Time: 0900-1100. Weather: not noted. This was a partial count in passing through the county. In spite of this the observer managed to find a Caspian Tern, a Great Horned Owl, and a couple of Brown-headed Nuthatches. Observer: Charlie Muise. Compiled by Ron Hoff (see Anderson County).

Putnam County – Time: 0600-1840. Weather: clear with some p.m. winds at 5-10 mph; 53-79° F. Some sightings of interest included the second confirmed county record of an exotic species, the Eurasian Collared-Dove; the earliest ever fall arrival date for Marsh Wren in the county; and the highest ever one-day county totals for Osprey, Red-shouldered Hawk, and Philadelphia Vireo. No sightings of Loggerhead Shrike was another sign that this predatory songbird is not maintaining as much of a population in the county as it once did. The compiler feels that the clearing of hedgerows and roadsides has probably been a major factor in the decline of this species. Observers: Janie C. Finch, Judy Fuson, Michael J. Hawkins, Jane E. B. Herrin, Margo Hinkle, Nancy S. Layzer, Michael P. O'Rourke, Richard W. Simmers, Jr., Barbara H. Stedman, Stephen J. Stedman (compiler: 2675 Lakeland Dr., Cookeville, TN 38507; sstedman@tntech.edu), Catherine E. and Winston A. Walden, and Carol D. Williams.

Roane County – Time: 0730-1230, 1750-1930. Weather: clear and sunny; 53-69° F. Highlights included Black-crowned Night-Heron, Western Sandpiper, Common Nighthawk, Brown-headed Nuthatch, American Pipit, and Swamp Sparrow. Observers: Ed Manous and Charlie Muise. Compiled by Ron Hoff (see Anderson County).

Shelby County — Time: 0630-1900. Weather: clear with winds NE 0-15 mph; 61-88° F. Observers found 15 more species this year than in 2003. Notable finds included Upland and Stilt Sandpipers, a Black-billed Cuckoo, an Alder Flycatcher (documentation on file; this is a rare find in western TN in the fall and may be the first fall record of this species in the west TN region), and a Philadelphia Vireo. Record high numbers for this count were tallied for Great Egret, Wood Duck, Carolina Chickadee, White-breasted Nuthatch, Gray Catbird, and Brown Thrasher. Observers: Betty and David Blaylock, Carolyn Bullock, Kate Gooch, Barbara Hardin, Margaret Jefferson, Rob Peeples (compiler: 8205 Meadow Glen Dr., Memphis, TN 38138; wpeeples@midsouth.rr.com), Dick Preston, Virginia Reynolds, Ed Thomas, Marth Waldron, Silvia Wortham, and Linda Zempel.

Wilson County – Time: 0530-1500. Weather: clear with winds NE 7 mph, then slowing to slight by p.m.; 55-76° F. Observers were unable to count at Boxwell Scout Camp. This resulted in fewer waterfowl numbers. Observers stated that bird movement was slow. The total number of species was 4 fewer than in 2003. Notable finds included Yellow-bellied Sapsucker, Cliff Swallow, House Wren, and Graycheeked Thrush. Observers: Charles and Earline Berry, Ralph Brinkhurst (compiler: 3570 Cainsville Rd., Lebanon, TN 37090; oligo1@aol.com), Kay Brinkhurst, Frank S. Crawford, Grace Speck, Melissa and Roy Turrentine, and Dean and Jerry Walker.

Table 1. Results of the Fall North American Migration Count for Tennessee counties conducted 18 September 2004.

Species A	nderson	Blount	Greene	Loudon	Marion	Putnam	Roane	Shelby	Wilson	Totals
Canada Goose	215	350	259	45	020	115	85	137	75	1281
Wood Duck	=	24	43	12		43	-	77	-	199
Mallard	20	129	24	-	-	14	39	143	5	374
Blue-winged Teal	570	9	-			3	8	10	12	30
Green-winged Tea	1 =	-	2	-	-	-	-	353	-	2
Common Mergans	er -	1211	2	•	-	-	-	-	-	2
Wild Turkey	-	18	45	5	1511	20	-	2	39	124
Northern Bobwhit	e -	3	1	=	(4)	-	-	3	11	18
Pied-billed Grebe	-	1	20	_	8	4	1	12	1	23
Horned Grebe	-	780	1	-	-	-	878	(7)	55	1
Dbl-crested Cormo	orant =	4	1	2	45	30	12	22	15	131
Great Blue Heron	.5	10	18	40	12	11	5	24	6	131
Great Egret	-	-	1	-	7.50	77.3	-	31	8	40
Snowy Egret	말	2	-		(2)	20	•	1	-	1
Little Blue Heron	-	151	_	-	*	-	(-	4	-	4
Cattle Egret	Ξ.	140	1		1990	-	~		-	1
Green Heron	1	4	3		3	4	-	4	-	19
Blk-cr. Night-Hero	m -	6	2	18	373	101	15	-	1	42
Black Vulture	5	15	39	43	21	43	7-1	6	85	257
Turkey Vulture	22	40	95	2	50	104	7	8	24	352
Osprey	-	4	5	1	3	5	-	1	-	19
Bald Eagle	-	120	21	1	-		-	-	-	1
Northern Harrier	-	1	2	0	-	I	-	-	-	4
Sharp-shinned Ha	wk -	3	7.	8.	-	1	-	-	2	6
Cooper's Hawk	1	3	2	<u> </u>		3	(JE)	2	-	11
Red-shouldered H	awk 4	2	5	=	1.73	16	1	9	-	32
Broad-winged Hav	wk -	1	4	8	9	18	-	3	-	35
Red-tailed Hawk	2	4	18	==	127	25	1	14	4	68
American Kestrel	1	2	17	-	-	25	2	8	2	57
Merlin	1	(+)	-	-	-	353	855	3553	177	1
Sora	-		-	-	0.00	92	929	1	12	1
Semipalmated Plo	ver 1	-	-	-	(5)	(57)	-	12	95	13
Killdeer	35	15	49	~	2	33	18	330	10	492
Black-necked Stilt	0	121	-	2	-	923	-	8	6	8
Greater Yellowlegs	-	070	+	53	17.5	950	1070	5	5	5
Lesser Yellowlegs	-		8	-	-	1	(st)	37	79	38

Species Ande	rson	Blount	Greene	Loudon	Marion	Putnam	Roane	Shelby	Wilson	Totals
Solitary Sandpiper	_				ועו	_	_	14	_	14
Spotted Sandpiper	2	1		-			(+)	1	-	4
Upland Sandpiper	27	141			-	-	_	1	_	1
Semipalm. Sandpiper	-	151	-		_	-	1	20		21
Western Sandpiper	=	-	-	-	-		2	7	-	9
Least Sandpiper	-			21			9	2508		2517
Pectoral Sandpiper	н		4	-	-	_	-	127	-	127
Stilt Sandpiper	-	120	-	-	-	_	-	1		1
Red-necked Phalarope		2		2	-	*	25		5	2
Caspian Tern	_	-	_	-	2	7 5 3	-	888	- 2	2
Rock Pigeon	34	156	99	45	-	103	020	201	83	721
Euras. Collared-Dove	_	-	3	-		1		39		43
Mourning Dove	39	196	260	4	2	234	8	178	68	989
Black-billed Cuckoo	25	_		-	_	-	_	3	2	1
Yellow-billed Cuckoo				8		3	-	8		11
Barn Owl	-	140		-	-	1		-		1
Eastern Screech Owl	0	2	1	-	(23)	10	-	4		13
Great Horned Owl		6	1	*	1	2	-	2	-	12
Barred Owl	3	î	22	2	•	1	920	3		8
Common Nighthawk	-	10	1	2		1	1	3	7	16
Chimney Swift	12	65	59	10	-	45	40	37		268
Ruby-th. Hummingbird	4	28	52	3	5	15	2	18	12	139
Belted Kingfisher	4	6	8	4	2	7	1	8	2	42
Red-head. Woodpecker	-	2	5	_	-	7		39	3	56
Red-bell. Woodpecker	17	12	53	-	3	54	(2)	59	14	212
Yellow-bell. Sapsucker	8	-	-			-		-	2	2
Downy Woodpecker	5	14	19	1	1	52	-	26	10	128
Hairy Woodpecker	1	1	5	<u>u</u>	127	9		6		22
Northern Flicker	2	4	20		2	33	878	10	2	73
Pileated Woodpecker	4	8	12		-	24	1	12	1	62
Eastern Wood-Pewee	-	9	15	0	-	33	-	30	1	88
Acadian Flycatcher	Ξ	(10)	*	-		_	-	24		24
Alder Flycatcher		-	-		-	-	(2)	1		1
Empidonax sp.		959	5.	-	-	4		1		5
Eastern Phoebe	7	19	19	1	~	60	1	5	5	117
Great Crested Flycatche	r 🗵	-	-	-	-	3		2	14	5
Eastern Kingbird	8	3	1	2	-	4	150	3	12	11
Flycatcher sp.		878	-	-	-	-	-	-	4	4
Loggerhead Shrike	-	2	1	-	-	-	741	2	i i	5

Species	Anderson	Blount	Greene	Loudon	Marion	Putnam	Roane	Shelby	Wilson	Totals
White-eyed Vireo	2	-	7		-	44		81	1	135
Yellow-throated \	Vireo 2	2	-		-	12	-	12	-	28
Blue-headed Vire	o 1	7			_	8	-	-	2	16
Philadelphia Vire	0 -	-	1	-	-	2	-	1	-	4
Red-eyed Vireo	_	1	1	-	-	6	_	9	-	17
Blue Jay	36	68	223	9	45	235	6	45	85	752
American Crow	40	162	110	13	15	216	8	32	52	648
Fish Crow	_	-			-	-	-	1		1
Common Raven	2	_	2	Δ,	-	-	-		-	2
Horned Lark	÷	1	-	-	-	2	-	2	-	5
Tree Swallow	_	-	328		40	1	-	11	Ε.	380
N.Rough-wing. Sw	allow -	127	267	-	-	948	328	43	171	481
Bank Swallow	-	6			-	-	-	1		7
Cliff Swallow	-	-	-	*	-	-	-	1-3	34	34
Barn Swallow	_	9	100	×	-	-	-	7	-	116
Carolina Chickad	ee 17	56	61	4	3	117	3	95	21	377
Tufted Titmouse	20	26	41	5	3	101	4	55	17	272
Red-breasted Nur	thatch -	2			-	-	-	_	0	2
White-breasted Nu	thatch 8	7	9		-	60	-	37	6	127
Brown-headed Nu	thatch -	2		-	2	8	3	-	-	15
Carolina Wren	19	77	106	8	5	114	5	92	19	445
House Wren	=	2	1		-	5	-	-	1	9
Marsh Wren	2	343	-	-	4	1	120	-	2	1
Ruby-crowned K	inglet -	7	7	-	-	1	-	1	-	2
Blue-gray Gnatca	tcher -	1	3	-	-	4	-	4		12
Eastern Bluebird	19	53	147	3	7	238	7	39	33	546
Veery	-	-	-	-		1	-	-	-	1
Gray-cheeked Th	rush -	(+)	-		-	-		-	1	1
Swainson's Thrus	sh 2	6	1	¥	-	14	-	6	-	29
Wood Thrush	-	-	1	-	-	4	-	7	-	12
American Robin	1	71	146	-	1	58	3	148	3	431
Gray Catbird	2	5	8	-	-	32	_	20	7	74
Northern Mockin	gbird 9	31	117	6	3	36	4	16	18	240
Brown Thrasher	5	5	17	-	*	37	-	14	1	79
European Starling	750	465	3358	198	20	2094	600	310	728	8523
American Pipit		-	-	-	170	•	7	0.750	0	7
Cedar Waxwing	-	27	139	-	-	22	-	1	10	199
Blue-winged War	bler -	-	1	43	*	1	-	2	-	4
Golden-winged V	Varbler -	_		π.	_	1	-	~	_	1

Species Anders	90n	Blount	Greene	Loudon	Marion	Putnam	Roane	Shelby	Wilson	Totals
Tennessee Warbler	120	8	4	121	2	13		7		32
Orange-crowned Warblet	res	55	1	-	*	-		1	-	2
Nashville Warbler	-	-	-	-	Ψ.	-	~	2	-	2
Northern Parula	-	3	1	L	-	10	2	25	22	39
Yellow Warbler		Ħ	5			=	~	=		5
Chestnut-sided Warbler	(H)	1	4	-	×	26	=	5	-	36
Magnolia Warbler	3	4	12	(7)	0	52	-	10	6	87
Black-thr. Blue Warbler	-	-	2	-	-		-	_		2
Yellow-rumped Warbler	-	2	-	-	2	-	-	-	820	2
Black-thr. Green Warbler	-	2	7	1	-	7		4	1	21
Blackburnian Warbler	-	1	Ĩ	-	-	2		-		4
Yellow-throated Warbler	1	2	-	-	25	2	-	2	0.71	7
Pine Warbler	-	9	4		3	13	6	1	-	36
Prairie Warbler	-	7	2	129	_	3	1	_	75	11
Palm Warbler	-	2	1	(5)	_	8	-	_	-	3
Bay-breasted Warbler	_	-	1	19		2	_	=	_	3
Black-and-white Warbler	_	4	12	-	-	18	_	8	1	31
American Redstart	3	15	15	1	-	17	-	5		56
Prothonotary Warbler		1	1	-	-	-	-	3	١.	5
Worm-eating Warbler	-	-	1	-	(2)	2		_		3
Ovenbird	-	1	ĕ	æ	-	10	-	6	-	11
Northern Waterthrush	:-	1	-	-	-	41	_	1	-	2
Kentucky Warbler	-	2	₩	12	_	5	- 5	2	-	2
Common Yellowthroat	-	5	15	-	-	28	3	3	140	54
Hooded Warbler	-	-	-	-	-	16	29	5	20	21
Wilson's Warbler	-	670	2	-	-	5	53	1	-	3
Canada Warbler	-	-	1		83		_	23		1
Yellow-breasted Chat	_	_	-	-	2	1	-			1
Warbler sp.	-	_	-		-	3.5	0.00		1	1
Summer Tanager	1	-	2	-	_	13	23	16	4	36
Scarlet Tanager	1	1	4	0	12	23	_	1	1	31
Eastern Towhee	2	9	8			56	_	3	5	83
Chipping Sparrow	5	11	23	Ψ.	-	51	_	8	1	99
Clay-colored Sparrow	-	1	22	-	-	-		1073		1
Field Sparrow	-	7	16	=	-	36		_	7	66
Savannah Sparrow	×	191	-		-	1.	~		-	1
Grasshopper Sparrow	-	1	_	0	828	-			-	1
Song Sparrow	3	7	37	1		60	3	8.73		111
Lincoln's Sparrow		_				2	_			2

Species	Anderson	Blount	Greene	Loudon	Marion	Putnam	Roane	Shelby	Wilson	Totals
Swamp Sparrow	7 -		_	_	-	_	1	_		1
White-throated Sp	parrow -	-	1		-	-	-	-	-	1
Northern Cardir	nal 18	57	266	8	6	200	3	78	33	669
Rose-breasted Gr	osbeak -	-	1	9	-	10	-	8	-	19
Blue Grosbeak		11	10	-	_	2	3	_	-	26
Indigo Bunting	-	26	121	Ξ	_	45	-	28	12	232
Bobolink	2	1	-	6	**	~	(/47	12	64	7
Red-winged Blac	ckbird -	7	111	-	E	185	4	29	2	338
Eastern Meadow	vlark 24	24	46	=	-	19	3	6	2	124
Common Grackl	le 4	53	319	1	1	3	-	398	4	783
Brown-headed Co	owbird -	3	5		1876	32	2	4	3	49
Baltimore Oriole			_		-	-	100	1	1.0	1
House Finch	1	37	27	R	-	12	1727	20	16	113
American Goldf	inch 17	50	57	6	7	83	10	14	24	268
House Sparrow	=	55	15	-	~	54	20	132	3	279
Total individuals	s 1186	2083	7025	337	181	5324	793	5712	1551	24192
Total species	55	102	103	30	32	109	45	119	62	165
Effort data:										
Observers	2	12	15	4	1	11	2	11	7	65
Parties	1	9	9	3	1	5	2	6	3	39
Party hours	6	42.75	40.25	3.5	2	51.5	6.67	30	14	196.67
Hours by car	5	8.25	27	1	0.5	38.5	2.67	11	12	105.92
Miles by car	117	240.2	334	4.5	10	433	37	144	112.5	1432.2
Hours by foot	1	32.5	13.25	2.5	1.5	13	4	19	2	88.75
Miles by foot	1	20	7	2	1	8.5	3.5	12	3	58
Hours by boat, o	or other -	2		38	-	-	-	-	-	2
Miles by boat or	other -	15	823	12	-	-	-	-	-	1.5
Hours owling		1.75	0.25	-		3	2		0.25	5.25
Miles owling		1.5	5	-	-	39	=	19	0	45.5
Feeder observer	s -	2	3	-	-	2	12	2	3	12
Feeder hours	-	1.25	18.45	10	58	7.75	-	5	19	51.45

2004 TENNESSEE TRADITIONAL FALL BIRD COUNTS

Compiled by Ron Hoff 282 Hackworth Ln. Clinton, TN 37716

This summary reports on the Fall bird counts that are held on a date other than the third Saturday in September. That day is the Fall North American Migration Count. This year 74 observers counted almost 22,000 birds of 148 species (Table 1). While Elizabethton and Knoxville had relatively normal total species counts, Nashville recorded the lowest species total in its count history. This is partly due to a couple of traditional routes not being covered this year. Early winter arrivals and late-lingering breeders added notably to the species totals. No heavy rains or high winds were noted.

COUNT SUMMARIES

Elizabethton – 09/25/04; 0530-2000. Weather: clear to partly cloudy with some fog/haze and winds N 5-10 mph; 52-82° F. This count area includes Carter, Johnson, Sullivan, Unicoi and Washington counties. The 123 species found this year were 9 species fewer than last year. The average species total for the last 25 years is 122, with the all-time count high at 137 in 1993. Carolina Wren set an all-time high count total. Highlights included Eared Grebes, 9 species of raptors, a Forster's Tern, a Chuck-will's-widow, all 7 species of woodpeckers, 22 Common Ravens, Loggerhead Shrike, 23 species of warblers, including an Orange-crowned, and a Grasshopper Sparrow. Observers: Fred Alsop, Rob Biller, Lynn Chalmers, Wallace Coffey, Gilbert Derouen, Glen Eller, Bill Grigsby, Cathy Gunther, Don Holt, Mark Hopey, Reece Jamerson, Rick Knight (compiler: 804 N. Hills Dr., Johnson City, TN 37604; rknight@preferred.com), H. P. Langridge, Tom Laughlin, Rad Mayfield, Joe McGuiness, Tom McNeil, Charles Moore, Chris O'Bryan, Charlie and Ellen Parker, Bryan Stevens, Kim Stroud, David Thometz, and Gary Wallace.

Knoxville – 09/26/04; 0715-1945. Weather: clear most of the day with clouds late in the p.m., no rain, winds N 5-10 mph; 9th day without rain and tropical storm Jeanne approaching; 62-80° F. The species total was slightly above average for the past few years. Highlights included Bald Eagle, Peregrine Falcon, Redheaded Woodpecker, Loggerhead Shrike, Red-breasted and Brown-headed (at 2 different sites) Nuthatches, Marsh Wren, White-throated and White-crowned Sparrows, and Bobolinks. Notable misses included Northern Bobwhite, Sharp-shinned Hawk, Blue-headed Vireo, Cedar Waxwing, and Prairie Warbler. Observers: Jean Alexander, Lyn Bales, Frank Bills, Kathy Bivens, Sharon Bostick, Howard Chitwood, Gail and Steve Clendenen, Marcia Davis, K. Dean Edwards (compiler: 1615 Meadow Chase Ln., Knoxville, TN 37931; kde@angst.engr.utk.edu), Carole Gobert, Tom Howe, David Johnson, Tony King, Dan and Laurie Mooney, Chuck Nicholson, Truett Patterson, Boyd Sharp, Allan Trently, and David Trently.

Nashville = 10/02/04; 0530-1900. Weather: rain in the a.m., then mostly cloudy with winds WSW 8 mph; 65-72° F. The Bell's Bend and Owls Hill routes were not

Table 1. Results of the Traditional Tennessee Fall Bird Counts — 2004

		200 - 1.07/201			
Species	Elizabethton	Knoxville	Nashville		
Canada Goose	429	147	190		
Wood Duck	43	7	25		
Mallard	280	7	88		
Blue-winged Teal		-	41		
Green-winged Teal	7	-	1(4.)		
Red-breasted Merganser	-	-	1		
Ruffed Grouse	4	(2)	(57)		
Wild Turkey	15	7	106		
Pied-billed Grebe	(4)	1	9		
Eared Grebe	4	474			
Double-crested Cormorant	16	13	62		
Great Blue Heron	22	16	34		
Great Egret	673	555	6		
Green Heron	1	4	2		
Black-crowned Night-Heron	(2)	1	5		
Black Vulture	20	6	117		
Turkey Vulture	181	20	138		
Osprey	5	2	2		
Bald Eagle	181	1	1		
Northern Harrier	2	-			
Sharp-shinned Hawk	15	-			
Cooper's Hawk	12	4	9		
Accipiter sp.	(I D 4)	1	(5)		
Red-shouldered Hawk	180	2	8		
Broad-winged Hawk	5	1	1121		
Red-tailed Hawk	13	12	17		
American Kestrel	13	1	23		
Merlin	2	127	1121		
Peregrine Falcon	2	1	1870		
American Coot	2	-	15		
Semipalmated Plover	3	127	101		
Killdeer	81	88	54		
Greater Yellowlegs	(+)	-	3		
Lesser Yellowlegs	2	325	121		
Solitary Sandpiper	3	679	(5)		
Spotted Sandpiper	5	1	100		

Species	Elizabethton	Knoxville	Nashville
Least Sandpiper	14	_	
Wilson's Snipe		1	_
Ring-billed Gull	×	_	3
Forster's Tern	1	-	_
Rock Pigeon	119	104	64
Mourning Dove	404	259	160
Black-billed Cuckoo	-	-	1
Yellow-billed Cuckoo	3	2	_
Eastern Screech Owl	14	4	2
Great Horned Owl	4	1	2
Barred Owl	2	4	1
Common Nighthawk	-	11	1
Chuck-will's-widow	1	-	-
Chimney Swift	757	247	132
Ruby-throated Hummingbird	15	32	1
Belted Kingfisher	18	14	25
Red-headed Woodpecker	10	1	
Red-bellied Woodpecker	31	52	55
Yellow-bellied Sapsucker	6	2	7
Downy Woodpecker	.51	40	70
Hairy Woodpecker	16	3	10
Northern Flicker	46	41	37
Pileated Woodpecker	30	7	12
Eastern Wood-Pewee	13	15	11
Acadian Flycatcher	-	1	-
Empidonax sp.	5	1	_
Eastern Phoebe	65	22	54
Eastern Kingbird	2	-	
Loggerhead Shrike	1	2	
White-eyed Vireo	2	11	12
Yellow-throated Vireo	L.		1
Blue-headed Vireo	48		
Red-eyed Vireo	2	8	2
Blue Jay	530	707	459
American Crow	361	239	174
Common Raven	22		→
Iree Swallow	32	-	26
Carolina Chickadee	185	147	206

Species	Elizabethton	Knoxville	Nashville
Tufted Titmouse	93	119	120
Red-breasted Nuthatch	10	2	2
White-breasted Nuthatch	46	23	46
Brown-headed Nuthatch	₹/	6	-
Brown Creepcr	3	-	553
Carolina Wren	143	103	163
House Wren	8	5	3
Winter Wren	4	-	-
Sedge Wren	(27)	6 <u>0</u> 0	1
Marsh Wren	Sta	2	1.71
Golden-crowned Kinglet	5	(9)	141
Ruby-crowned Kinglet	9	2	2
Blue-gray Gnatcatcher	11	1	-
Eastern Bluebird	131	127	146
Veery	2	9E)	(<u>10</u>)
Gray-cheeked Thrush	12	1,40	3
Swainson's Thrush	60	23	19
Hermit Thrush	_	1071	1
Wood Thrush	25	8	1
American Robin	347	220	238
Gray Catbird	21	94	32
Northern Mockingbird	139	130	102
Brown Thrasher	9	57	9
European Starling	1244	2301	726
Cedar Waxwing	155	-	63
Golden-winged Warbler	-	4	1
Tennessee Warbler	64	29	26
Orange-crowned Warbler	1	5	2
Nashville Warbler		2	2
Northern Parula	2	1	-
Yellow Warbler	2	-	1
Chestnut-sided Warbler	8	11	10
Magnolia Warbler	13	87	59
Cape May Warbler	3	2	2
Black-throated Blue Warbler	36	1	8
Yellow-rumped Warbler	1	-	3
Black-throated Green Warbler	24	1	7
Blackburnian Warbler	7	3	1

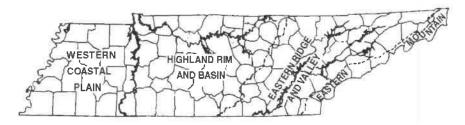
Species	Elizabethton	Knoxville	Nashville
Yellow-throated Warbler	4	1	1
Pine Warbler	5	8	2
Palm Warbler	14	13	5
Bay-breasted Warbler	10	2	1
Black-and-white Warbler	11	4	14
American Redstart	17	36	21
Worm-eating Warbler	2	-	-
Ovenbird	4	3	4
Northern Waterthrush	4	-	-
Common Yellowthroat	7	55	22
Hooded Warbler	18	3	1
Canada Warbler	1	-	
Yellow-breasted Chat	1	4	1
Summer Tanager		2	11
Scarlet Tanager	19	6	1
Eastern Towhee	61	39	27
Chipping Sparrow	72	12	28
Field Sparrow	5	26	48
Savannah Sparrow	5	29	
Grasshopper Sparrow	1	-	
Song Sparrow	107	96	12
Swamp Sparrow	2	7	-
White-throated Sparrow	1	2	3
White-crowned Sparrow		I	-
Dark-eyed Junco	150	150	-
Northern Cardinal	161	195	205
Rose-breasted Grosbeak	91	40	118
Blue Grosbeak	1	2	-
Indigo Bunting	45	111	195
Bobolink	-	25	141
Red-winged Blackbird	76	29	331
Eastern Meadowlark	13	44	39
Common Grackle	180	903	354
Brown-headed Cowbird	12	83	26
Baltimore Oriole	1		_
House Finch	39	100	30
American Goldfinch	339	59	103
House Sparrow	69	20	30
1.700			

Species	Elizabethtor	Knoxville	Nashville
Total individuals	8170	7644	5903
Total species	124	106	103
Effort data:			
Observers	25	22	27
Parties	8	13	8
Party hours	81	55.5	57
Hours by car		6.25	28.75
Miles by car		135	348
Hours by foot		49.25	28.25
Miles by foot		31.25	23
Hours by other (boat)		-	-
Miles by other (boat)	-	(4)	
Hours owling	4.5	-	1
Miles owling	(=)	-	15
Feeder observers	529	5	(4)
Feeder hours	(70)	11	(2)
Count date	9/25/2004	9/26/2004	10/2/2004

covered this year. Gallatin Steam Plant had no good habitat. This was the *lowest* species total ever for this count. Count highlights included Red-breasted Merganser, Bald Eagle, 106 Wild Turkeys, Ring-billed Gull, Black-billed Cuckoo, Sedge Wren, and Golden-winged Warbler. Observers: Sandy Bivens, Ed Byrne, Kevin Bowden, Rick Bryant, Eileen Cartwright, Phillip Casteel, Richard Conners, Jerry Drewry, John Fison, Todd Foster, Heather Gallager, Mark Hackney, Linda Kelly, John Lane, Jon Marn, Diana McLusky, Elizabeth O'Conner, Amy Potter, Sarah Scott, Jan Shaw (compiler: 5019 Timberhill Dr., Nashville, TN 37211; jankshaw@aol.com), Kathy Shaw, Chris Sloan, Michael Smith, Joe Stone, Sabin Thompson, Terry Witt, and Mary Zimmerman.

THE FALL SEASON

RICHARD L. KNIGHT, Editor



1 August - 30 November 2004

Overall, this was a mild and wet season. October and November were notably warmer than usual. East Tennessee received moderate amounts of rain from the remnants of three hurricanes in September. These storms are detailed below in the introduction to the Cumberland Plateau/Ridge and Valley regional report. Alert birders monitored bodies of water for fallouts from these tropical systems and were well rewarded. Sooty Terns were transported inland to three sites by two of these hurricanes. Frances deposited a Sooty on South Holston Lake, while Ivan provided one at Nickajack Lake and two at Cherokee Lake. Other terns, Laughing and Lesser Black-backed gulls, and a variety of shorebirds were grounded in the two eastern regions, as were a few terns and shorebirds in parts of the Highland Rim and Basin region. While many of these waterbirds were undoubtedly carried inland by the hurricanes, some of the terns and shorebirds are regular mid-continent migrants that may have been forced down when they encountered inclement weather. The hurricanes also disrupted the operation of three banding stations in the Eastern Mountains. But, how did these hurricanes impact the flights of regular September migrants?

Aside from the hurricane fallouts, several rarities appeared in the state this fall. An especially impressive array was found in West Tennessee — Mottled Duck, Clark's Grebe, Neotropic Cormorant, White-faced Ibis, Sharp-tailed & Curlew sandpipers, and Vermilion Flycatcher! A Bell's Vireo in Stewart County, two Blacknecked Stilts in East Tennessee, and yet another Great White Heron sighting in Sullivan County were notable. In addition, Sedge Wrens were reported nesting in White County, just the second confirmed breeding record in Tennessee. Reports of these and the regular migrants follow in the regional accounts.

Standard Abbreviations

ad - adult L - Lake
ba. - banded lrs - latest reported sighting
Co - County max - maximum count
Cr - Creek m.ob. - many observers

ers - earliest reported sighting Mtn - Mountain

et al. - and others R - River
fide - reported by SP - State Park
im - immature sp. - species

Is. - Island WMA - Wildlife Management Area

WESTERN COASTAL PLAIN REGION — In August, the weather was fairly typical. The subsequent autumn months were rather warm, and their precipitation levels were quite odd. With a total of only one-quarter inch of rain, Memphis posted its second driest September since 1850. Afterwards, October and November were unusually wet, with both months receiving almost twice their normal rainfall.

Most notable this season were reports of Mottled Duck and Sharp-tailed Sandpiper, both at the EARTH Complex, plus a Curlew Sandpiper noted at Britton Ford. Each of these three sightings represents the second record for the state. Also, the Clark's Grebe at Mud Island in Memphis was about the third reported in Tennessee. Observers are urged to submit documentation for all species considered accidental in the state to the records committee (TBRC).

Waterfowl: Greater White-fronted Goose: 31 Oct (450) EARTH Complex (JRW), max; also reported from Haywood, Henry, & Lake Cos. (m.ob.). Snow Goose: 20 Nov (1619) EARTH Complex (JRW), max. Ross's Goose: 31 Oct (2) Henry Co (MCT), ers; 13 Nov (12) Lauderdale WMA (WGC), max. Tundra Swan: 13-20 Nov (1) Lauderdale WMA (WGC, JRW, MTOS). Gadwall: 11 Aug (4) White Lake WMA (WGC). American Wigeon: 17 Sep (1) EARTH Complex (JRW), ers. American Black Duck: 15 Oct (1) Henry Co (DMa, MCT), ers. MOTTLED DUCK: 28 Aug-10 Oct (1) EARTH Complex (JRW, MCT et al.), 2nd state record, pending TBRC acceptance. Northern Pintail: 21 Aug (3) Lake Co (WGC, KCL, Betty Leggett). Redhead: 17 Nov (16) Lauderdale WMA (WGC), max. Ring-necked Duck: 7 Sep (1) Henry Co (DMa, MCT), ers. Greater Scaup: 19 Nov (30) EARTH Complex (JRW); 20 Nov (4) Reelfoot L (WGC). Surf Scoter: 5/20 Nov (1) Shelby Co (JRW); 6 Nov (1) Henry Co (MCT); 21 Nov (1) Lake Co (JRW). Black Scoter: 6/19/25 Nov (1) Shelby Co (JRW); 13 Nov (2) Henry Co (MCT, JRW); 14 -20 Nov (1-2) Lake Co (WGC, NaM, JRW).

Loon - Stork: Red-throated Loon: 27 Nov (1) Henry Co (JRW). Common Loon: 6 Nov (500) Benton & Henry Cos (MCT, JRW, Ken Allen), max. Horned Grebe: 2

Oct (1) Mud Is. (JRW), ers; 27 Nov (130) Henry Co (JRW), max. Eared Grebe: 5 Nov (2) Mud Is. (JRW). CLARK'S GREBE: 5 Nov (1) Mud Is. (JRW, MCT), 1st for West Tenn. American White Pelican: noted thru period; 30 Oct (1425) Shelby Co (JRW), max; also reported from Benton, Dyer, & Lake Cos (m.ob.). NEOTROPIC CORMORANT: 12 Sep (1) EARTH Complex (JRW et al.). Double-crested Cormorant: 25 Nov (3000) Reelfoot L (VH), max. Anhinga: 7/9 Aug (1) Eagle Lake WMA (WRP, VBR/VH). Least Bittern: 16 Aug/17 Sep (2/3) EARTH Complex (WAW, JRW). Snowy Egret: from Oct into Dec (1, apparently injured) EARTH Complex (JRW), unusually late. Tricolored Heron: 6 Aug - 2 Sep (1) White Lake WMA (WGC, KCL). Black-crowned Night-Heron: 7 Aug (1) Eagle Lake WMA (WRP, VBR); 11 Aug (1) White Lake WMA (WGC); 10 Sep (1) EARTH Complex (CHB, VBR); 22 Sep (1) Henry Co (MCT); 11 Oct (2) Shelby Farms (VBR). WHITE-FACED IBIS: 25 Sep (1) EARTH Complex (JRW). Wood Stork: 8 Aug (1) EARTH Complex (CHB, VBR, LVZ).

Osprey - Crane: Osprey: 25 Sep (6) Benton & Henry Cos (Hap Chambers), max; 6 Nov (1) Henry Co (MCT), Irs. Bald Eagle: noted in Dyer, Lake, Lauderdale, Gibson, Henry, & Shelby Cos (m.ob.). Northern Harrier: 7 Sep (1) Black Bayou (NaM), ers. Sharp-shinned Hawk: 16/22 Aug (1) EARTH Complex (JRW). Broadwinged Hawk: 7 Nov (1) Henry Co (JRW, Ken Allen), Irs. "Harlan's" Red-tailed Hawk: 14 Nov (1) Dyer Co (WGC) & (1) Lauderdale Co (JRW). Merlin: 3 Sep - 2 Oct (1) EARTH Complex (JRW, MCT et al.); 18 Sep (1) Benton Co (DMa, MCT); 12 Oct (1) Mud Is. (JRW). Peregrine Falcon: 26 Sep (5) EARTH Complex (JRW), max; also noted in Dyer, Lake, & Henry Cos (m.ob.). Sora: 10 Sep - 4 Oct (1-2) Shelby Farms (VBR, WRP). American Coot: 11-16 Aug (1) White Lake WMA (WGC). Sandhill Crane: 20 Sep (3) Shelby Farms (Jo Levy); 13 Nov (1) White Lake WMA (WGC); 14 Nov (27) Obion Co (JRW).

Shorebirds: Black-bellied Plover. 22 Aug (1) Mud Is. (JRW); 29 Aug/2-3 Oct (1) EARTH Complex (JRW et al.); 9/15 Oct (1) Henry Co (DMa, MCT). American Golden-Plover: 7-9 Aug/6 Sep (1) Eagle Lake WMA (WRP, VBR, VH, JRW); 29 Aug/10 Oct (1/22) EARTH Complex (JRW); 2 Oct (2) Henry Co (MCT). Piping Plover: 8/19 Aug (2/1) Lake Co (JRW/MCT). Black-necked Stilt: 12 Oct (2) EARTH Complex (JRW), Irs. American Avocet: 21-22 Aug/12-29 Oct (1/2) EARTH Complex (JRW); 24 Oct (7) Henry Co (DMa, MCT); 31 Oct (8) Mud Is. (JRW). Willet: 1 Aug (1) Lauderdale Co (JRW); 8 Aug (2) Dyer Co (JRW); 15 Aug (1) EARTH Complex (CHB, VBR). Upland Sandpiper: 7 Aug/18 Sep (3/1) EARTH Complex (JRW/DDP). Ruddy Turnstone: 19 Aug (1) Lake Co (MCT); 28 Aug - 25 Sep (1-3) EARTH Complex (JRW). Sanderling: 8 Aug (3) Lake Co (JRW); 11 Sep / 2-9 Oct (3) Henry Co (MCT); 18 Sep (2) Lauderdale Co (JRW); 14/20 Nov (2/15) EARTH Complex (VBR, LVZ/JRW). White-rumped Sandpiper: 16 Aug/25 Sep (1) EARTH Complex (JRW). Baird's Sandpiper: 5 Sep/25 Nov (8/1) EARTH Complex (JRW) et al.), max/lrs; 7 Sep (2) Henry Co (DMa, MCT). Pectoral Sandpiper: 19 Nov (1) EARTH Complex (JRW), Irs. SHARP-TAILED SANDPIPER: 9 Sep (1) EARTH Complex (VBR, LVZ), 2nd state record, pending TBRC acceptance. Dunlin: 15

Aug/6 Nov (1/100) EARTH Complex (CHB, VBR/JRW), ers/max. CURLEW SANDPIPER: 8 Oct (1) Britton Ford, Henry Co (TJW), 2nd state record, pending TBRC acceptance. Stilt Sandpiper: 26 Sep (235) EARTH Complex (MCT, JRW), new high count for West Tenn. Buff-breasted Sandpiper: 25 Aug/8 Sep (1) Gibson Co (MCT); 3-25 Sep (1-2) EARTH Complex (JRW et al.); 11/22 Sep (2/1) Henry Co (MCT et al.). Long-billed Dowitcher: 2 Oct (13) EARTH Complex (JRW), max; 20 Nov (4) Lauderdale WMA (JRW), Irs. Wilson's Phalarope: 2 Aug - 9 Sep/1-16 Oct (1-3) EARTH Complex (CHB, VBR, JRW, LVZ et al.); 19 Aug (4) Lake Co (MCT). Red-necked Phalarope: 25 Sep (1) EARTH Complex (JRW).

Gull - Woodpecker: Laughing Gull: 22 Sep - 9 Oct (1) Paris Landing SP (MCT). Franklin's Gull: reported from Henry Co 2 Oct - 7 Nov, with max of 1600 on 31 Oct (MCT); 31 Oct (56) Lake Co (NaM) & (380) Mud Is. (JRW). Bonaparte's Gull: 2 Oct (1) Henry Co (MCT), ers. Ring-billed Gull: 15 Aug (1) EARTH Complex (CHB, VBR); 30 Aug (50) Henry Co (MCT). Herring Gull: 7 Sep (2) Paris Landing SP (DMa, MCT), ers. Lesser Black-backed Gull: 18 Sep - 26 Nov (1-4) Henry Co (MCT, DMa, JRW et al.). Common Tern: 7 Sep (1) Paris Landing SP (DMa, MCT). Least Tern: 25 Sep (2) Shelby Co (CHB, VBR, JRW), record late for West Tenn. Black Tern: 21 Aug (43) Dyer Co (WGC, KCL, Betty Leggett), max. Common Nighthawk: 22 Aug/20 Oct (75/1) Shelby Co (Gaynell Perry/LVZ, John Zempel), max/Irs. Chimney Swift: 12 Sep (1667) Shelby Farms (CHB, VBR), max. Red-headed Woodpecker: 2 Nov (100+) Shiloh National Military Park, Hardin Co (BHS), max.

Flycatcher - Waxwing: Alder Flycatcher: 18 Sep (1) Shelby Forest (WRP). VER-MILION FLYCATCHER: 28 Nov (1 ad. male) Hatchie NWR, Haywood Co (JRW). Scissor-tailed Flycatcher: 17/31 Oct (1) EARTH Complex (CHB, VBR et al./JRW); 31 Oct (2) Shelby Farms (Anne Hooper, CHB, LVZ et al.). White-eyed Vireo: 25 Nov (1) Reelfoot L (VH), Irs. Bell's Vireo: 14 Oct (1) Black Bayou (NaM), record late. Philadelphia Vireo: 22 Sep (19) Shelby Forest (MTOS), max. Blue Jay: 22 Sep (1000) Benton Co (MCT), new high count for West Tenn. Fish Crow: 20 Nov (3) Lauderdale WMA (MTOS). Red-breasted Nuthatch: 29 Sep (1) Tipton Co (DDP), ers; also reported from Dyer, Gibson, Henry, Lake, & 4 locations in Shelby Cos (m.ob.). Winter Wren: 7 Oct (1) Shelby Forest (WRP), ers. Golden-crowned Kinglet: 6 Oct (1) Shelby Farms (VBR), ers. Ruby-crowned Kinglet: 18 Sep (1) Shelby Forest (MTOS), ers. Blue-gray Gnatcatcher: 27 Nov (1) Shelby Farms (George Payne), unusually late. Gray Catbird: 6 Nov (1) Henry Co (MCT), Irs. Cedar Waxwing: 19 Aug (3) Black Bayou (NaM), ers; 4 -5 Sep (8) Pickwick SP, Hardin Co (Dennis Welch).

Warblers: Blue-winged Warbler: 12 Aug (3) Shelby Forest (WRP). Goldenwinged Warbler: 22 Sep (5) Shelby Forest (MTOS), max; 9 Oct (1) Henry Co (MCT), lrs. Orange-crowned Warbler: 18 Sep (1) Shelby Farms (Martha Waldron), ers. Yellow Warbler: 4 Oct (1) Shelby Farms (VBR), lrs. Prairie Warbler: 22 Sep (1) Henry Co (MCT), Irs. American Redstart: 21 Oct (1) Shelby Co (Bob Ilardi), lrs. Worm-eating Warbler: 22 Sep (1) Shelby Forest (MTOS), lrs. Northern Water-

thrush: 18 Sep (1) Shelby Forest (MTOS); 30 Sep (1) Shelby Farms (WRP). Mourning Warbler: 18 Sep (1) Henry Co (DMa, MCT); 2 Oct (1) Tipton Co (DDP). Wilson's Warbler: 18 Sep (1) Shelby Forest (MTOS). Canada Warbler: 1 Sep (1) Shelby Co (Gerry Papachristou).

Sparrow: 6 Nov (1) EARTH Complex (JRW). Song Sparrow: 1 Aug (6) EARTH Complex (VBR). White-throated Sparrow: 15 Sep (1) Shelby Forest (DDP), unusually early. Rose-breasted Grosbeak: 14 Nov (1) Collierville, Shelby Co (Kathie Holder), Irs. Blue Grosbeak: 13 Oct (1) Shelby Farms (CHB, LVZ), Irs. Indigo Bunting: 1 Nov (1) Germantown, Shelby Co (WRP), Irs. Dickcissel: 12 Sep (4) EARTH Complex (CHB, VBR), Irs. Bobolink: 3 Oct (1) Henry Co (MCT). Western Meadowlark: 21 Nov (3) Lake Co (JRW). Brewer's Blackbird: 7 Nov (1) Henry Co (JRW). Purple Finch: 15 Nov (2) Tipton Co (DDP), ers; also reported from 3 Shelby Co (WRP), ers; 13 Nov (20) Collierville, Shelby Co (Kathie Holder), max; also reported from Gibson, Henry, & Lauderdale Cos (Mark Greene, MCT, WRP).

Locations: Black Bayou - in Lake Co; Eagle Lake WMA - in Shelby Co; EARTH Complex - in Shelby Co; Lauderdale WMA - in Lauderdale Co; Mud Is. - in Shelby Co; Paris Landing SP - in Henry Co; Reelfoot L - in Lake & Obion Cos; Shelby Farms/Forest - in Shelby Co; White Lake WMA - in Dyer Co.

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HIGHLAND RIM AND BASIN REGION — The four-month autumn period in the Nashville area was characterized by a cool August with mean temperatures that were nearly 4 degrees below normal. September was a transition month, having near normal temperatures, while October and November were exceptionally warm, over 4 degrees warmer than usual. For each of the four months rainfall totals were about 1 inch above average, making for a wet fall.

Goose - Merlin: Greater White-fronted Goose: 31 Oct (600) Marshall Co (DMo). Gadwall: 2 Oct (4) Cumberland R., Jackson Co (SJS, WAW, Terry Campbell), ers. American Wigeon: 29 Sep (1) Cane Cr. Park (SJS, Janie Finch), ers. Ring-necked Duck: 17 Oct (1) Center Hill L. (SJS), ers. Hooded Merganser: 5 Nov (2) Radnor L (Sharon Monroe), ers. Red-breasted Merganser: 2 Oct (1) Cheatham Co (Joe Stone), ers. Ruddy Duck: 13 Oct (1) White Co (SJS), ers. Common Loon: 26 Nov (150+) Percy-Priest L., Davidson Co (RHC), max. Horned Grebe: 17 Oct (5) Center Hill L. (SJS), ers. American White Pelican: 7 Aug/21 Nov (65/126) Duck R. Unit (PDC, JSD/GBC). American Bittern: 7 Aug (1) Duck R. Unit (PDC, JSD). Little Blue Heron: 12 Aug (1 im) Warren Co (SJS, WAW); 23 Aug (1 ad) Wood's Reservoir, Franklin Co (Dale & Jeanie Swant, Jerry Ingles, Ruth Luckado). Cattle Egret: 6

Aug (110) Sumner Co (Michael Smith). Green Heron: 2/25 Nov (1) Radnor L (Susan Hollyday/RHC), late; 29 Nov (1) City L. (SJS, DAD), lrs. Black-crowned Night-Heron: 18 Aug (an apparently dependent juv. following an ad.) Hurricane Marina, Center Hill L (CDW), 1st local indication of nesting. Yellow-crowned Night-Heron: 9 Oct (1 im) Burgess Falls State Natural Area, Putnam Co (CDW, VH, Michael Hawkins), new late date for Co. White Ibis: 19 Aug (1 im) Wood's Reservoir, Franklin Co (Dale & Jeanie Swant, Jerry Ingles, Ruth Luckado); 10 Sep (1 im) Randolph Pond, White Co (SJS, DAD). Merlin: 21 Nov (1) Duck R. Unit (GBC).

Rail - Tern: Virginia Rail: 25 Sep (1) Heritage Marsh (DAD, SJS); 5 Oct (1) Celina, Clay Co (Terry Campbell). Sora: 25 Sep/6 Nov (1) Heritage Marsh (SJS, DAD). Common Moorhen: 25 Sep (1 ad) White Co (SJS, DAD). Sandhill Crane: 13 Oct (150) Cookeville (Michelle Ramsey), new early date for Co; 26 Nov (3) Long Hunter SP, Davidson Co (RHC). Lesser Yellowlegs: 8 Sep (60) White Co (SJS), max. Solitary Sandpiper: 7 Aug (40) Duck R. Unit (JSD, PDC), max. Pectoral Sandpiper: 7 Aug (22) Duck R. Unit (JSD, PDC), max. Stilt Sandpiper: 8 Sep (1) Lewis Pond, Sumner Co (TJW); 8 Sep (1) White Co (SJS). Short-billed Dowitcher: 8 Sep (1) Lewis Pond, Sumner Co (TJW); 8 Sep (1) White Co (SJS). Wilson's Snipe: 25 Sep (1) White Co (DAD, SJS), ers. Caspian Tern: 8 Sep (3) Center Hill L (SJS). Forster's/Common Tern: 8 Sep (20) Cane Cr. Park & (40) Center Hill L (SJS). Forster's Tern: 13 Oct (1) White Co (SJS). Black Tern: 8 Sep (2) Cane Cr. Park & (2) White Co (SJS).

Cuckoo - Vireo: Black-billed Cuckoo: 2 Oct (1) Cheatham Co (Joe Stone). Common Nighthawk: 1 Nov (1) Putnam Co (Michael O'Rourke), new late date for Co. Rufous Hummingbird: thru season, 4 ba. in region (Chris Sloan, Portia Macmillan). Yellow-bellied Sapsucker: 18 Sep (1) Wilson Co (Dean & Jerry Walker), ers. Olive-sided Flycatcher: 15 Aug (1) Shelby Park (PDC); 23-27 Aug (1) DeKalb Co (VC, TC); 24 Aug (1) Ft. Campbell (DMo); 10 Sep (1) Murfreesboro (TJW). Eastern Wood-Pewee: 27 Oct (1) downtown Nashville (DHM), late; 30 Oct (1) Cookeville (WAW), new late date for Co. Yellow-bellied Flycatcher: 14 Sep (1) Radnor L (FCF), ers; 29 Sep (1) Shelby Bottoms (TJW), Irs. Least Flycatcher: 28 Aug (1) Shelby Park (PDC, MAZ), ers. Empidonax sp.: 13 Nov (1) Old Hickory L (GBC et al). Eastern Kingbird: 9 Oct (1) White Co (DAD et al.), Irs. Scissor-tailed Flycatcher: 20 Oct (1) Putnam Co (Ginger Ensor), late. BELL'S VIREO: 11 Sep (1) Gray's Landing, Stewart Co (MCT). Blue-headed Vireo: 31 Oct (1) Radnor L (JKS); 13 Nov (1) Old Hickory L (PDC, FCF, RHC, Sarah Scott, MAZ), new late date for Nashville area. Philadelphia Vireo: 18 Sep (2) Putnam Co (BHS, SJS), ers; 25 Sep (3) White Co (SJS, WAW et al.); 24 Oct (1) Radnor L (JKS), lrs. Red-eyed Vireo: 24 Oct (1) Pickett SP, Pickett Co (SJS), Irs.

Nuthatch - Waxwing: Red-breasted Nuthatch: 11 Sep (1) Williamson Co (Barbara Harris), ers. Brown-headed Nuthatch: 18 Sep (8) Cookeville golf course (WAW, Michael O'Rourke). Winter Wren: 10 Sep (1) Radnor L (FCF), new early date for Nashville area. Sedge Wren: 14 Aug (9 singing)/25 Sep (1 ad with 1 re-

cently fledged yg & 1 ad with 3 yg) Heritage Marsh (SJS, DAD et al.), 2nd confirmed nesting record in Tenn.; 24 Aug (7) Ft. Campbell (DMo); 17 Oct (1) Radnor L (JKS). Marsh Wren: 18 Sep (1) Putnam Co (BHS), new early date for Co. Goldencrowned Kinglet: 17 Oct (1) Shelby Bottoms (PDC, MAZ), ers. Ruby-crowned Kinglet: 18 Sep (1) Putnam Co (SJS), ers. Veery: 7 Sep (1) Radnor L (FCF), ers. Swainson's Thrush: 6 Sep (2) Radnor L (FCF), ers. Hermit Thrush: 6 Oct (1) Cane Cr. Park (CDW, Janie Finch), ers. American Pipit: 18 Nov (20) Shelby Bottoms (PDC), ers. Cedar Waxwing: 25 Jul (1) Davidson Co (RHC).

Warblers: Blue-winged Warbler: 17 Aug (8) Shelby Park & Bottoms (PDC, FCF), max. Golden-winged Warbler: 17 Aug (1) Shelby Park (PDC, FCF), ers; 25 Sep (1) White Co (SJS, DAD), Irs. Tennessee Warbler: 8 Sep (1) Shelby Park (PDC), ers; 4 Nov (1) Radnor L (FCF), Irs. Orange-crowned Warbler: 22 Sep (1) DeKalb Co (TC, VC), ers. Nashville Warbler: 25 Sep (1) White Co (BHS), ers; 4 Nov (1) Radnor L (FCF), Irs. Yellow Warbler: 14 Nov (1) Celina, Clay Co (SJS, WAW), quite late. Chestnut-sided Warbler: 11 Aug (1) Cane Cr. Park (SJS, Ginger Ensor), new early fall date for Co. Magnolia Warbler: 25 Aug (1) City L (SJS), new early fall date for Co. Black-throated Blue Warbler: 15 Sep/29 Oct (1) Radnor L (Carrie & David Dortch, FCF, PDC/FCF), latter date establishes new late date for Nashville area. Yellow-rumped Warbler: 2 Oct (1) Radnor L (Chris Sloan), ers. Blackthroated Green Warbler: 7 Aug (1) Duck R. Unit (PDC, JSD), early. Blackburnian Warbler: 17 Aug (1) Shelby Park (FCF, PDC), ers. Bay-breasted Warbler: 9 Sep (1) City L (SJS), ers. Blackpoll Warbler: 27 Sep (1) Shelby Park (PDC), rare in fall. Northern Waterthrush: 15 Oct (3) White Co (SJS, DAD), Irs. Common Yellowthroat: 26 Nov (1) White Co (DAD, SJS), lrs. Wilson's Warbler: 26 Aug (1) Shelby Park (PDC), ers.

Sparrow - Siskin: American Tree Sparrow: 12 Nov (1) west Nashville (Dee Thompson). Henslow's Sparrow: 10 Oct (1) Warren Co (Susan McWhirter). Fox Sparrow: 14 Nov (1/2) Williamson Co/Davidson Co (JKS, Linda Kelly/RHC), ers. Lincoln's Sparrow: 18 Sep (2) Putnam Co (BHS), ers; 9 Oct (4) White Co (DAD et al.), max. Swamp Sparrow: 25 Sep (1) White Co (BHS), ers. White-crowned Sparrow: 25 Oct (2) Shelby Bottoms (PDC), ers. Dark-eyed Junco: 17 Oct (1) Shelby Bottoms (PDC, MAZ), ers. Rose-breasted Grosbeak: 15 Sep (1) Radnor L (Carrie Dortch), ers. Bobolink: 24 Aug (2) Ft. Campbell (DMo), ers; 9 Oct (1) Heritage Marsh (DAD et al.), Irs. Rusty Blackbird: 9 Oct (1) White Co (DAD et al.), ers. Orchard Oriole: 7 Aug (13) Duck R. Unit (PDC, JSD), max. Baltimore Oriole: 31 Aug (17+) Shelby Park (PDC, FCF), max. Purple Finch: 25 Oct (2) DeKalb Co (TC, VC), ers. Pine Siskin: 24 Oct (20) DeKalb Co (CDW), ers.

Addendum: Long-eared Owl: 27 Dec 2003 (1, heard calling) Warren Co. CBC (SJS).

Locations: Cane Cr. Park - in Putnam Co; Center Hill L. - in DeKalb Co; City L. - in Putnam Co; Duck R. Unit - unit of Tennessee NWR in Humphreys Co; Ft. Campbell - Montgomery Co portion; Heritage Marsh - in White Co; Old Hickory L - in Davidson Co; Radnor L - in Davidson Co; Shelby Park & Bottoms - in Davidson Co.

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CUMBERLAND PLATEAU/RIDGE & VALLEY REGION — The weather news this season was dominated by the remnants of three hurricanes in September. Although the heaviest impacts of these storms occurred outside Tennessee, regional rainfall for the month was double the average amount. The first of these storms, Frances, passed up the east side of the Appalachians on 7-8 September with about 1" rain here, but over 12" of rain in western North Carolina swelled the Nolichucky and French Broad Rivers, inundating Rankin Bottoms. The passage of Ivan on 16-17 September, also up the Appalachians, produced the heaviest rains in East Tennessee, with 2-4" locally. Jeanne passed well east of Tennessee on 27-28 September, but still brought about 1" rain to parts of the region. Each of these storms grounded some shorebirds and terns. While some, such as Sooty Terns, were clearly transported inland by these tropical systems, other groundings may have simply consisted of southbound migrants forced to stop in place. Following Frances, the mudflats of Rankin Bottoms remained underwater into October, forcing shorebirds to search for suitable habitat. Other sites, such as Brainerd Levee, were also impacted by higher than average water levels. Elsewhere on the weather scene, the season was characterized by a lack of cold fronts and warmer than average temperatures during October and November.

Sooty Terns at two sites in the wake of *Ivan* were the obvious highlight of the hurricane season. These are the fifth and sixth regional records of this pelagic tern, with two of the previous records occurring in the autumn of 2002 after a hurricane. A remarkable event was the appearance of six species of terns, including Sooty, at Cherokee Dam on 17 September. Single Black-necked Stilts at separate sites in mid October represented just the third and fourth regional records. Likewise, Franklin's Gulls at two sites later in the season were rare for the eastern portion of the state. Waterfowl numbers were low, probably owing to the mild conditions. The warbler flight was considered sub-par, perhaps due to hurricane disruption. A modest influx of Red-breasted Nuthatches, Purple Finches, and Pine Siskins were the only boreal irruptives. Soddy Mountain hawk watch data are summarized in Table 1.

Goose - Heron: Snow Goose: 31 Oct/7 Nov (147/16) Soddy Mtn (WGH et al.). American Wigeon: 1 Sep (1) Rankin Bottoms (DAH, James Brooks), ers. Northern Shoveler: 31 Aug (1) Washington Co (JWC, Chris O'Bryan), ers. Redhead: 29 Nov (24) Chickamauga L (KAC). Surf Scoter: 8 Nov (4) Dutch Bottoms (RLK); 9-13 Nov (1) Eagle Bend (AJT, m.ob.). Red-breasted Merganser: 23 Nov (38) Boone L (RLK); 29 Nov (26) Chickamauga L (KAC). Pied-billed Grebe: 7 Aug (1) Greene

Co (DHM), ers. Great Egret: 29 Aug (82) Rankin Bottoms (DHM), max. Snowy Egret: 6 Sep (1) Rankin Bottoms (KDE). Little Blue Heron: 22 Aug - 6 Sep (1-2 im) Rankin Bottoms (DHM, DAH et al.). Tricolored Heron: 18-19 Sep (1) Brainerd Levee (Marty Paige et al.), first fall record in Chattanooga area. Cattle Egret: 14 Aug - 18 Sep (1) Greene Co (DHM); 22 Aug (16) Rankin Bottoms (DHM, DAH, Jim Holt et al.); 9 Sep (233, at roost) Kingston WMA, Roane Co (ABS, S&GC), exceptional number in region. Black-crowned Night-Heron: small numbers at Kingston Steam Plant, Rankin Bottoms, Douglas Dam, Cherokee Dam, Austin Springs, & Greene Co.

Table 1. Fall 2004 Hawkwatch Totals from Soddy Mtn. (WGH et al.). 5 Sep - 26 Nov; 53 days

Black Vulture	14	Broad-winged Hawk 1997	
Turkey Vulture	207	Red-tailed Hawk 154	
Osprey	16	Golden Eagle 2	
Bald Eagle	27	American Kestrel 15	
Northern Harrier	33	Merlin 7	
Sharp-shinned Hawk	361	Peregrine Falcon	8
Cooper's Hawk	67	Unidentified	5
Red-shouldered Hawk	30		
221 miltures & 2722 have	J. 2042		

221 vultures & 2722 hawks = 2943

Kite - Crane: Mississippi Kite: 14/26 Aug (1) Brainerd Levce (Daniel Jacobson, RJH/KAC). Bald Eagle: 4 Sep (2 im) Rankin Bottoms (RLK); 4 Sep (1 ad) Boone L (Ken Hale); 8 Sep/14 Nov (1 ad) Austin Springs (RLK/DAH); 26 Oct thru season (1-2) Seven Is. Refuge (Jim Giocomo, DJT et al.); 13 Nov (1 ad) Phipps Bend, Hawkins Co (LCM, DAH, RLK et al.). Northern Harrier: 29 Aug (1) Bledsoc Co (SJS, WAW), ers. "Krider's" Red-tailed Hawk: 17/30 Oct (1) Greene Co (DHM). Golden Eagle: 9 Nov (1) Hiwassee Refuge (Orabelle Campbell); 16 Nov (2) Soddy Mtn (WGH). Merlin: 5 Sep (1) Rankin Bottoms (DAH, FRC); 27 Sep (1) Johnson City (RLK); 10 Oct (1) Bridgestone/Firestone Centennial Wilderness, White Co (RLK, WAW et al.); 3/8 Nov (1) Limestone (DAH); 7 at the Soddy Mtn hawkwatch represents the 3rd best tally there in 12 years of operation (WGH et al.). Peregrine Falcon: 10 Aug/16 Oct (1) Kingston Steam Plant (ABS, S&GC/GBC, NTOS); 22 Aug (1) Greene Co (DHM); 4 Sep (1) Seven Is. Refuge (CMM et al.); 15 Sep (1) Kingsport (John Moyle); thru season (1-2) Chickamauga Dam (Harold Sharp et

al.); 8 at the Soddy Mtn hawkwatch represents the 2nd best tally there in 12 years of operation (WGH et al.). Virginia Rail: thru season (up to 7+) Standifer Gap Marsh (DEP et al.); 13 Nov (1) Phipps Bend, Hawkins Co (LCM, RLK). Sora: thru season (1-4) Standifer Gap Marsh (DEP et al.); 22 Aug (1) Austin Springs (LCM); 8 Sep (1) Greene Co (DHM). Sandhill Crane: 13 Nov (2) Sullivan Co (Mike Poe), east of usual migration corridor. Whooping Crane: 9 Nov (1) Hiwassee Refuge (Orabelle Campbell); 10 Nov (1, flying with 20 Sandhills) Cumberland Co (Dick Riesz); 11 Nov (7) Hiwassee Refuge (fide DA); from previous "classes" of Operation Migration, which again brought 14 im thru Hiwassee in late Nov.

Shorebirds: Black-bellied Plover: 10 Aug (1) Kingston Steam Plant (ABS, S&GC); 8 Sep (1) Greene Co (DHM). American Golden-Plover: 18 Sep (1) Limestone (RLK); 19 Sep (4) Brainerd Levee (Marty Paige, Carol Fegarido, KAC); 6 Oct (1) Eagle Bend (NeM); 8 Oct/4 Nov (1) Kingston Steam Plant (TSM, AJT, DAH, RLK/EM). Semipalmated Plover: 4 Sep (10) Rankin Bottoms (RLK), max. Blacknecked Stilt: 9-24 Oct (1) Blount Co (Jim Human, m.ob.); 13 Oct (1) Austin Springs (RLK, m.ob.); just the 3rd & 4th records in East Tenn. Lesser Yellowlegs: 9 Sep. (45) Greene Co (DHM), max. Ruddy Turnstone: 4 Nov (1) Rankin Bottoms (AJT). Sanderling: 31 Aug - 6 Sep (1-4) Rankin Bottoms (DAH, RLK et al.); 9 Sep (1) Greene Co (DHM); 12 Sep (2) Kingston Steam Plant (TJW); 12-14 Sep (1) Austin Springs (RLK), Semipalmated Sandpiper: 4 Sep (75+) Rankin Bottoms (RLK), max. Western Sandpiper: 6 Sep (33) Rankin Bottoms (DHM), max there; 11-14 Sep (1) Austin Springs (TSM et al.). Least Sandpiper: 4 Sep (110+) Rankin Bottoms (RLK), max. Baird's Sandpiper: 4 Sep/4 Nov (1/4) Rankin Bottoms (RLK/ AJT); 4 Nov (1) Kingston Steam Plant (EM). Pectoral Sandpiper: 4 Sep (40+) Rankin Bottoms (RLK), max. Dunlin: 9-24 Oct (5-12) Austin Springs (RLK et al.); 30 Oct (135) Dutch Bottoms (DHM), max there; 4 Nov (8) Kingston Steam Plant (EM). Stilt Sandpiper: 4 -6 Sep (5-12) Rankin Bottoms (RLK, DHM et al.); 18 Sep (1) Limestone (RLK). Buff-breasted Sandpiper: 4 -6 Sep (4) Rankin Bottoms (RLK, DHM et al.); 6 Sep (1) Kingston Steam Plant (EM); 15 Sep (4) Eagle Bend (Ron Hoff, Dollyann Myers). Short-billed Dowitcher: 29 Aug - 6 Sep (2-5) Rankin Bottoms (DHM, RLK et al.). Long-billed Dowitcher: 19 Oct (1) Austin Springs (RLK), 2nd record in NE Tenn.

Gull - Woodpecker: Laughing Gull: 17 Sep (1-2) Douglas Dam (KDE); 25 Oct (1) Dutch Bottoms (DAH). Franklin's Gull: 25 Oct (1) Dutch Bottoms (RLK, DAH), this is now the easternmost record in the state; 4 Nov (8) Kingston Steam Plant (EM). Bonaparte's Gull: 25 Oct (2) Dutch Bottoms (DAH), ers. Ring-billed Gull: 3 Sep (4) Boone L (LCM), ers. Caspian Tern: 14 Aug - 6 Sep (1-3) Rankin Bottoms (Michael Sledjeski, DHM et al.); 21 Aug (2) Kingston Steam Plant (DJT et al.); 1/9 Sep (2) Austin Springs (RLK/LCM); 8/17 Sep (2/1) Nickajack L (KAC); 17 Sep (2) Cherokee Dam (KDE). Common Tern: 8-9 Sep (2) Austin Springs (RLK, LCM); 8 Sep (20) Nickajack L (KAC, RJH, Janice Chadwell); 9/17 Sep (30/100+) Cherokee Dam (KDE). Forster's Tern: 21 Aug (1) Kingston Steam Plant (DJT et al.); 31 Aug (1) Rankin Bottoms (DAH); 8-9 Sep (1) Austin Springs (RLK, LCM); 8/17 Sep (4/

46) Nickajack L (KAC, RJH, Janice Chadwell/KAC, DFV); 9/17 Sep (1/2) Cherokee Dam (KDE); 17 Sep (3) Douglas Dam (KDE); 25 Oct (1) Dutch Bottoms (RLK). Least Tern: 17 Sep (2) Cherokee Dam (KDE). SOOTY TERN: 17 Sep (1 ad) Nickajack L (KAC, DFV), 2nd record there; 17 Sep (2+ ad) Cherokee Dam (KDE). Black Tern: 20 Aug (3) Rankin Bottoms (AJT); 21 Aug (15) Kingston Steam Plant (DJT et al.); 8 Sep (1) Austin Springs (RLK); 9/17 Sep (30/7) Cherokee Dam (KDE); 17 Sep (3) Douglas Dam (KDE); 17 Sep (1) Nickajack L (KAC, DFV). Eurasian Collared-Dove: thru season (1-3) Greene Co (DHM); 26 Aug (3) Soddy-Daisy, Hamilton Co (Hank Schaffer), 1st there; 29 Aug (37) Pikeville, Bledsoe Co (SJS, WAW); 30 Aug (1) Limestone (RLK), 1st record in NE Tenn.; 9 Sep (1) Jefferson Co (KDE). Black-billed Cuckoo: 25 Sep (1) Hamilton Co (Jonnie Sue Lyons), only report. Northern Saw-whet Owl: 5-6 Nov (3 ba.) U.T. Forestry Experiment Station, Anderson Co (Jim Giocomo). Whip-poor-will: 25 Sep (1, singing) near Fall Cr. Falls S.P., Bledsoe Co (Dana Girard), Irs. Red-headed Woodpecker: 22 Aug (1) Rankin Bottoms (DHM).

Flycatcher - Nuthatch: Olive-sided Flycatcher: 29 Aug (1) Greene Co (DHM). Eastern Wood-Pewee: 6 Nov (1) Johnson City (LCM), Irs. Yellow-bellied Flycatcher: 27 Aug (1 ba.) Hamilton Co (DA). Least Flycatcher: 2 Oct (1) Greene Co (DHM), Irs. White-eyed Vireo: 6 Nov (1) Greene Co (DHM), Irs. Yellow-throated Vireo: 25 Oct (1) Standifer Gap Marsh (DEP), Irs. Philadelphia Vireo: 18 Sep (1) Greene Co (DHM); 19 Sep (1) Johnson City (RLK, DAH, LCM); 3 Oct (2) Cumberland Co (SJS, Edmund LeGrand); 4/17 Oct (1) Hamilton Co (KAC et al.). Common Raven: 28 Sep/15 Oct/23 Nov (1) Bristol (RLK); 30 Sep/3 Nov (1) Conklin, Washington Co (DAH/RLK); 2 Nov (2) Austin Springs (RLK). Horned Lark: 31 Aug (8) Scott Co. airport (NeM). Tree Swallow: 23 Sep (2,000) Limestone (DAH), max. Northern Rough-winged Swallow: 17 Oct (4) Greene Co (DHM), lrs. Barn Swallow: 10 Oct (1) Greene Co (DAH, RLK), lrs. Red-breasted Nuthatch: 19 Sep (1) Johnson City (RLK); 21 Sep (1) Greeneville (DHM); 27 Sep (1) Campbell Co (NeM); 29 Sep (1) Hamilton Co (DA); first wave of widespread small numbers. Brown-headed Nuthatch: thru season (2-4) Kingston Steam Plant (m.ob.); 12 Oct (2) Louisville Park, Blount Co (S&GC); 15 Nov (4-5) Melton Hill Dam, Loudon Co (Frank Renfrow).

Wren - Warbler: Sedge Wren: 14 Aug (1) Austin Springs (DAH); 10 Oct (1) Kingston Steam Plant (TSM, AJT); 17 Oct (2) Brainerd Levee (KAC et al.); thru season (2-4) Standifer Gap Marsh (DEP et al). Marsh Wren: 10 Oct (2) Bridgestone / Firestone Centennial Wilderness, White Co (RLK, WAW et al.); 27 Oct (7) Brainerd Levee (KAC et al.); thru season (2-4) Standifer Gap Marsh (DEP et al.). Blue-gray Gnatcatcher: 28 Nov (1) Knox Co (Susan Hoyle), Irs. Gray-cheeked Thrush: 27 Sep (7) Campbell Co (NeM), max. American Pipit: 18 Sep (7) Kingston Steam Plant (CMM et al.), ers. Golden-winged Warbler: 10 Sep (1) Chattanooga (KAC), only report. Orange-crowned Warbler: 26 Sep / 24 & 31 Oct (1-2) Craven's House, Hamilton Co (KAC); 9 Oct (1) Kingsport (John Moyle); 12 Oct (1) Blount Co (Jean Alexander et al.); 24 Oct / 27 Nov (1) Seven Is. Refuge (DJT et al.); 3 Nov (1) Wash-

ington Co (RLK). Black-throated Blue Warbler: 7 Oct (1, window kill) Hamilton Co (DA). Black-throated Green Warbler: 31 Oct (1) Knoxville (Benny Thatcher), Irs. Northern Waterthrush: 3 Oct (6) Greene Co (DHM), max; 30 Oct (1) Rankin Bottoms (DHM), Irs; above average number of reports. Connecticut Warbler: 4 Oct (1) Greene Co (DHM); 11 Oct (1) Campbell Co (NeM). Mourning Warbler: 18 Sep (1) Morgan Co (DJT). Wilson's Warbler: 1 Sep (1) Obed Wild & Scenic R., Morgan Co (BHS); 4 Sep (1) Rankin Bottoms (DHM); 18 Sep (1) Greene Co (DHM); 18 Sep (1) Hamilton Co (KAC).

Sparrow - Siskin: Vesper Sparrow: 10 Oct - 6 Nov, reported from Hamilton, Roane, Campbell, Greene & Washington Cos. Grasshopper Sparrow: 20 Oct (1) Limestone (RLK); 27 Nov (1) Seven Is. Refuge (DJT, CMM), Irs. Henslow's Sparrow: 17 Oct (1) Brainerd Levee (KAC, Clyde Blum, Daniel Jacobson). Fox Sparrow: 27 Nov (15) Seven Is. Refuge (DJT, CMM), max. Lincoln's Sparrow: 1 Oct (1) Greene Co (DHM); 9 Oct (1) Scott Co (SJS, NeM); 11/19 Oct (1) Austin Springs (RLK); 12 Oct (1) Blount Co (Jean Alexander et al.); 17/20 Oct (1) separate Hamilton Co sites (KAC et al./DEP); 20 Oct (1) Washington Co (RLK). Swamp Sparrow: 18 Sep (1 ba.) Hamilton Co (DA), ers. White-throated Sparrow: 30 Sep (1) Greene Co (DHM), ers. Lapland Longspur: 1 Nov (1) Greene Co (DHM). Rose-breasted Grosbeak: 13 Nov (1) Knox Co (Leslev Bulluck), Irs. Blue Grosbeak: 24 Oct (2) Seven Is. Refuge (DJT et al.), Irs. Bobolink: 31 Aug (18) Scott Co (NeM), ers. Purple Finch: 27 Oct (1) Sullivan Co (Charlie Parker), ers; notable widespread influx during first week of Nov, thereafter scattered in low numbers. Pine Siskin: 28 Oct (3) Hamilton Co (DEP), ers; 31 Oct (2) Sewanee, Franklin Co (James Peters); a few additional scattered reports in Nov.

Locations: Austin Springs - in Washington Co; Boone L - in Sullivan & Washington Cos; Brainerd Levee - in Hamilton Co; Cherokee Dam - in Grainger & Jefferson Cos; Chickamauga L - in Hamilton Co; Douglas Dam - in Sevier Co; Dutch Bottoms - in Cocke Co; Eagle Bend - fish hatchery in Anderson Co; Hiwassee Refuge - in Meigs Co; Kingston Steam Plant - in Roane Co; Limestone - in Washington Co; Nickajack L - in Marion Co; Rankin Bottoms - in Cocke Co; Seven Is. Refuge - in Knox Co; Soddy Mtn - in Hamilton Co; Standifer Gap Marsh - in Hamilton Co.

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EASTERN MOUNTAIN REGION — Daily temperatures were above normal for the period, especially October and November. Precipitation was above average for the period by about 5 inches. Rainfall was enhanced by the after-effects of three hurricanes. It was another good fall at South Holston Lake. Highlights included first local records of Red Knot, Lesser Black-backed Gull, and Sooty Tern, all hurricane influenced. Eared Grebes returned to this lake for the 11th consecu-

tive year. A Great White Heron was seen on the South Holston River near Bluff City, an amazing fifth Sullivan County record for this sub-species.

Banding operations were conducted at three high elevation locations in the region this fall. Some of the highlights included 3 Merlins and a Peregrine Falcon banded on Big Bald Mountain, along with 2 Northern Saw-whet Owls. The Roan Mountain station also banded a saw-whet. The most significant theme this fall was a drastic decrease in Tennessee Warblers. The stations were also affected by the remnants of the hurricanes. Below are summaries for each station.

- Big Bald Mountain, Unicoi County: 1 September 22 October; 1025 birds of 46 species banded; G. Rad Mayfield & Mark Hopey, banders. Top species banded: Black-throated Blue Warbler (158), Dark-eyed Junco (134), Swainson's Thrush (120), Tennessee Warbler (120), Ruby-crowned Kinglet (70).
- Carver's Gap on Roan Mountain, Carter County, TN and Mitchell County,
 NC: 3 September 7 October; 452 birds of 42 species banded; Richard L. Knight,
 bander. Top species banded: Black-throated Blue Warbler (104), Dark-eyed Junco (80), Swainson's Thrush (52), Tennessee Warbler (27), Palm Warbler (21).
- Whigg Meadows, Monroe County: 4-15 September; 417 birds of 27 species banded; David F. Vogt, bander. Top species banded: Dark-eyed Junco (69), Tennessee Warbler (67), Black-throated Blue Warbler (50), Ovenbird (40), Chestnut-sided Warbler (27).

Goose - Falcon: Snow Goose: 12 Oct (5) South Holston L (JWC). Blue-winged Teal: 5 Nov (1) Middlebrook L., Sullivan Co (RLK), Irs. Green-winged Teal: 18 Sep (3) South Holston L (RLK et al.), ers. Ring-necked Duck: 28 Sep (4) South Holston L (JWC, RLK et al.), ers. Greater Scaup: 5-19 Nov (1-2) South Holston R. weir, Sullivan Co (RLK). Red-breasted Merganser: 23 Nov (87) South Holston L (RLK), max. Red-throated Loon: 19-20 Nov (2) Watauga L (TSM et al.). Eared Grebe: 31 Aug (2) South Holston L (JWC, Chris O'Bryan), ers, max of 8 beginning 10 Oct (m.ob.), present here for 11th straight autumn. Double-crested Cormorant: 18 Sep (75 flying over) Big Bald Mtn (GRM, MH), max. GREAT WHITE HERON: 20 Aug (1) South Holston R., near Webb Bridge, Sullivan Co (Jim Elliot fide JWC), 5th area record. Great Egret: 15 Aug/8 Sep (1) Erwin, Unicoi Co (BKS, David Thometz); 24 Aug (1) Unicoi, Unicoi Co (BKS); 30 Aug (5) Elizabethton (GOW); 10 Oct (7) Middlebrook L., Sullivan Co (JWC). Green Heron: 27 Oct (1) Shady Valley (Todd Eastin), Irs. Black-crowned Night-Heron: 2-12 Sep (2) South Holston L (JWC, Chris O'Bryan et al.). Osprey: 4 Aug (1) South Holston L (Ken Hale), ers; 18 Sep (10) Big Bald Mtn (GRM, MH), max; 21 Nov (1) Watauga L (TSM), Irs. Bald Eagle: 23 Aug thru season (1-2) South Holston L (JWC, FRC, m.ob.); 18/19 Sep (3/2) Big Bald Mtn (GRM, MH);21 Sep (1) Roan Mtn (Jerry Nagel, RLK); 22 Oct thru season (1-2) Wilbur L., Carter Co (m.ob.). Northern Harrier: 29 Aug (1) Roan Mtn (LCM et al.), ers. Sharp-shinned Hawk: 22 Sep - 22 Oct (57 ba.) Big Bald Mtn (GRM, MH). Cooper's Hawk: 23 Sep - 18 Oct (19 ba.) Big Bald Mtn (GRM, MH). Red-shouldered Hawk: 11 Sep (1) Roan Mtn (GOW, LCM et al.); 19

Oct (1) Elizabethton (TSM). **Red-tailed Hawk**: 20 Sep - 8 Oct (15 ba.) Big Bald Mtn (GRM, MH). **Merlin**: 17 Aug/10 Sep (1) South Holston L (FRC/DAH); 4/22/24 Sep (1-2) Carver's Gap (RLK); 19-21 Sep (3 ba.) Big Bald Mtn (GRM, MH); 25 Sep (1) Unicoi Co (Joe McGuiness, Kim Stroud); 28 Sep (1) Cades Cove, GSMNP (CMM); 19 Oct (1) Holston Valley, Sullivan Co (JWC); 23 Oct (1) Elizabethton (LCM, BKS et al.). **Peregrine Falcon**: 11 Sep (1) Roan Mtn (Jerry Nagel); 18-19/30 Sep (1-2/1 ba.) Big Bald Mtn (GRM, MH); 14 Oct (1) Erwin, Unicoi Co (BKS).

Coot - Woodpecker: American Coot: 25 Sep (2) Watauga R., Carter Co (GOW et al.), ers. Black-bellied Plover: 8/17 Sep (17/4) South Holston L (RLK, FRC, JWC, TSM/RLK). Semipalmated Plover: 8 Sep (9) South Holston L (RLK), max. Solitary Sandpiper: 13 Sep (1) Carver's Gap (RLK), unusual at high elevation. Whimbrel: 8 Sep (1) South Holston L (FRC, TSM, JWC, m.ob.). RED KNOT: 8 Sep (14) South Holston L (FRC, TSM, JWC), 1st local record & new high count for state. Ruddy Turnstone: 10-11 Sep (1) South Holston L (DAH et al.). Sanderling: 9-12/ 17 Sep (1) South Holston L (JWC, m.ob./RLK). Semipalmated Sandpiper: 8 Sep (26) South Holston L (RLK), max. Stilt Sandpiper: 17 Sep (I) South Holston L (RLK, TSM). American Woodcock: 5 Sep - 7 Oct (1-2) Carver's Gap (RLK). Rednecked Phalarope: 18 Sep (2) Cades Cove, GSMNP (Jim Human, Paul Hartigan, Jean Alexander, David Johnson, June Welch). Phalarope sp.: 9 Sep (1) South Holston L (Joe Goldston, JWC, John Shumate). Laughing Gull: 9/17-18/28 Sep (2/2/1) South Holston L (JWC, RLK, FRC, LCM, TSM, m.ob.). Ring-billed Gull: 22 Sep (1) South Holston L (JWC), ers. LESSER BLACK-BACKED GULL: 18 Sep (1 ad) South Holston L (RLK, LCM, TSM), 1st local record. Herring Gull: 9 Sep (1) South Holston L (H.P. Langridge et al.), ers. Caspian Tern: 21 Aug - 12 Sep/3 Oct (1-6, with max 19 on 9 Sep) South Holston L (FRC, JWC, m.ob.). Common Tern: 7-8/ 17-18 Sep (up to 32/8) South Holston L (JWC, FRC, TSM, m.ob.). Forster's Tern: 10 dates between 17 Aug - 3 Oct (1-8) South Holston L (m.ob.); 25 Sep (1) Watauga L (TSM). Black Tern: 17-21 Aug/8-9 Sep (7-12/9) South Holston L (FRC, JWC, TSM, m.ob.). SOOTY TERN: 8-11 Sep (1 ad) South Holston L (RLK, LCM, JWC, TSM, FRC, BKS, H.P. Langridge, Dave Worley, Ron Harrington, Mary Erwin, Judy Roach, Bill Grigsby, m.ob.), 1st local record. Mourning Dove: 3 Sep - 2 Oct (1) Carver's Gap (RLK). Northern Saw-whet Owl: 13 Sep (1 ba.)/3 Oct (1 calling) Carver's Gap (RLK); 23 Sep (2 ba.) Big Bald Mtn (GRM, MH). Common Nighthawk: 23 Oct (1) Elizabethton (LCM, DAH), Irs. Chimney Swift: 15 Oct (2,000) Elizabethton (TSM), max. Rufous Hummingbird: 12 Oct thru 29 Dec (1) Elizabethton (GOW), present for 3rd consecutive year. Selasphorus sp.: 5 Oct (1 female) Elk Mills, Carter Co (Eric Smith). Red-headed Woodpecker: 4 Sep - 7 Oct (22 total, with 14 on 12 Sep) Carver's Gap (RLK et al.), unprecedented number there; 7 Nov (1) South Holston R. weir, Sullivan Co. (DAH); 8-9 Nov (1) Holston Valley, Sullivan Co (Richard Lewis); banner flight year, with 20+ also reported from Mendota, VA hawkwatch. Red-bellied Woodpecker: 29 Sep/6-7 Oct (4/2) Carver's Gap (RLK), flying thru gap.

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Flycatcher - Siskin: Olive-sided Flycatcher: 3 Sep (1) Carver's Gap (RLK). Blueheaded Vireo: 19 Nov (1) South Holston Dam (RLK), Irs. Philadelphia Vireo: 21 Sep (1 ba.) Carver's Gap (RLK); 30 Sep (1) Hampton, Carter Co (BKS). Cliff Swallow: 13 Sep (3) Carver's Gap (RLK), unusual at high elevation. Marsh Wren: 18 Oct (1) Elizabethton (TSM). Hermit Thrush: 8 Aug (1, singing) Clingman's Dome, GSMNP (CMM, m.ob.); 3/15 Sep (2 juv. ba.) Carver's Gap (RLK), undoubtedly from local breeding population. Northern Mockingbird: 22 Sep (1) Carver's Gap (RLK), remarkable at high elevation. Brown Thrasher: 30 Sep (1 ba.) Big Bald Mtn (GRM, MH). Cedar Waxwing: 9 Nov (330) Carver's Gap (RLK), max. Tennessee Warbler: well below average numbers banded Carver's Gap, Big Bald Mtn, & Whigg Meadow (RLK, GRM, MH, DFV). Orange-crowned Warbler: 25 Sep & 6 Oct (2 ba.) Big Bald Mtn (GRM, MH); 15 Oct (1) South Holston L (RLK). Nashville Warbler: 6-23 Sep (3 ba.) Big Bald Mtn (GRM, MH). Yellow-rumped Warbler: 18 Sep (1) Big Bald Mtn (GRM, MH), ers. Yellow-throated Warbler: 16 Oct (1) Elizabethton (BKS et al.), new late departure date for NE Tenn. Wilson's Warbler: 3 Sep (1 ba.) Carver's Gap (RLK). Yellow-breasted Chat: 25 Sep (1) Elizabethton (BKS et al.), Irs. Vesper Sparrow: 18 Oct (2) Elizabethton (TSM). Lincoln's Sparrow: 12 Oct (4) Shady Valley (RLK). White-throated Sparrow: 3 Sep (1) Carver's Gap (RLK), new early arrival date for NE Tenn. Snow Bunting: 13 Nov (1) South Holston L (DAH, JWC, FRC, Ken Hale et al.), 2nd record there & for region away from high elevation balds. Dickcissel: 20 Oct (2) Cades Cove, GSMNP (CMM). Bobolink: 12 Oct (2) Shady Valley (RLK), Irs. Pine Siskin: 4 Nov (35) Foothills Parkway, Blount Co (CMM), max.

Locations: Big Bald Mtn - in Unicoi Co; Carver's Gap - on Roan Mtn in Carter Co; Elizabethton - in Carter Co; GSMNP - Great Smoky Mtns. National Park; Roan Mtn - in Carter Co; Shady Valley - in Johnson Co; South Holston L - in Sullivan Co; Watauga L - in Carter Co.

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