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THE RED-HEADED WOODPECKER AND BROWN-HEADED NUTHATCH ON THE OAK RIDGE RESERVATION: RELATIONSHIP TO RECENT LANDSCAPE CHANGES

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ABSTRACT

Prior to the mid-1990s, sightings of the Red-headed Woodpecker (Melanerpes erythrocephalus) on the Oak Ridge Reservation (ORR) were unusual, and the Brownheaded Nuthatch (Sitta pusilla) was not known to occur on the ORR. Since 1996, each of these species has been observed more than a dozen times at various localities on or adjacent to the ORR. Red-headed Woodpeckers are presumed, based upon sightings of juveniles, to have successfully fledged young on the ORR in 2000 and 2001. Although Brown-headed Nuthatches have been observed during the breeding season, their current breeding status on the ORR is not known. Anecdotal evidence suggests that landscape changes resulting from beaver (Castor canadensis) and southern pine beetle (Dendroctonus frontalis) activity may be important in the recent appearance of Red-headed Woodpeckers on the ORR. A potential increase in insect food resources resulting from such activities is presented as a possible argument for the recent occurrence of Brown-headed Nuthatches. A causal relationship, however, between beaver and pine beetle activity and the existence of Brown-headed Nuthatches on the ORR is less certain, and their appearance here fits a decade-long pattern of northward expansion of their range in Tennessee.

INTRODUCTION

Recent sightings of Red-headed Woodpeckers (Melanerpes erythrocephalus) on the

Oak Ridge Reservation (ORR) have closely followed, both temporally and spatially, the activities of southern pine beetles (Dendroctonus frontalis) and/or beavers (Castor canadensis) (Table 1). Landscape changes that resulted from these two very different species (beetles and beavers) provided prime habitat, where none previously existed, for the Red-headed Woodpecker. Brown-headed Nuthatches (Sitta pusilla) also appeared on the ORR subsequent to pine beetle and beaver activity. We are less convinced, however, that a causal relationship exists between pine beetle and beaver activity and the recent appearance of this nuthatch species on the ORR. We postulate that the existence of relatively mature pine stands, and to a lesser extent an increase in insect food resources in dead and dying stands, has contributed to the recent discovery of Brown-headed Nuthatches on the ORR.

Studies of ORR birds through the mid-1990s (Howell 1958, Anderson and Shugart 1974, Kroodsma 1982, Kroodsma 1984a and b, Hardy 1991, Mitchell et al. 1996) rarely reported the Red-headed Woodpecker and did not report the Brown-headed Nuthatch. It was not until the comprehensive inventory by Mann et al. (1997) that the presence of the Brown-headed Nuthatch on the ORR was recognized. This report was based on the earliest known sightings of this species on the ORR in September 1996. Brown-headed Nuthatches had been discovered by Beth Schilling a month prior to this, in the pines at the Melton Hill Dam campground (MHDA site) just off the ORR on the Loudon County side of the Clinch River (Fig. 1). In the early 1950s, the Red-headed Woodpecker was listed as one of the species utilizing the White Oak Creek watershed (Krumholz 1954) on the ORR. We could find nothing in the literature regarding these woodpeckers on the ORR in the nearly 50-year period since the Krumholz study.

Red-headed Woodpecker. The Red-headed Woodpecker was listed "In Need of Management" in Tennessee from 1976 to 1994, and any sightings of this bird in east Tennessee are worth noting. It is not uncommon, however, to find veteran bird-watchers who remember seeing this species fairly regularly in the east end of the state through the 1960s. Howell observed Red-headed Woodpeckers on 122 of 372 trips (154 roadside censuses and 218 field trips) taken in Knox County in the years 1947-1953 (Howell and Monroe 1957). Christmas Bird Count (CBC) data show that Red-headed Woodpeckers have been found on 21 counts conducted in Knoxville (the closest CBC to the ORR) from 1902 to 2001, including the three most recent counts (1999, 2000, and 2001) (all CBC data can be viewed at the Cornell Lab of Ornithology website, http://birdsource.cornell.edu/). Red-headed Woodpeckers are fairly common on the Cumberland Plateau, in Cumberland County, approximately 60 km west of the ORR.

Brown-headed Nuthatch. The Brown-headed Nuthatch is among the species "Tracked in Tennessee" by the Tennessee Natural Heritage Program, a division of the Tennessee Department of Environment and Conservation. The "\$2" state ranking assigned to this species indicates that it is "very rare and imperiled within the state, six to twenty occurrences, or few remaining individuals, or because of some factor(s) makes it vulnerable to extinction" (Natural Heritage website, http://www.state.tn.us/environment/nh/).

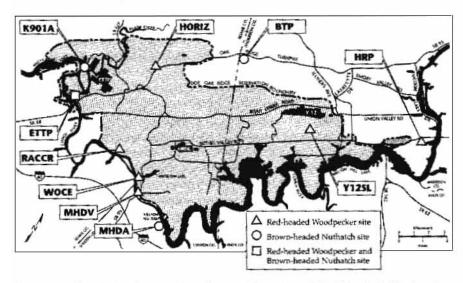


Figure 1. Oak Ridge Reservation showing locations of Red-headed Woodpecker and Brown-headed Nuthatch sightings.

Table 1. Primary habitat type, evidence of southern pine beetle (SPB) activity, and evidence of beaver activity in the immediate vicinity (~100 m radius) of sites where Red-headed Woodpeckers and Brown-headed Nuthatches have been observed on or near the Oak Ridge Reservation (site acronyms in bold type are located outside the ORR boundary).

Site ¹	Habitat Type ²	SPB Activity	Beaver Activity	Species Observed ³	Notes
ВТР	PINE	No	No	BHNU	most trees healthy
ETTP	PINE	Yes	Yes	both	pines killed by both SPB and beaver
HORIZ	MPHW	Yes	No	RHWO	most pines killed
HRP	MPHW	No	No	RHWO	trees healthy; predominately hardwoods
K901A	MPHW	No	Yes	BHNU	trees healthy
MHDA	PINE	No	No	BHNU	most trees healthy
MHDV	PINE	Yes	No	RHWO	extensive pine kill
RACCR	MPHW	Yes	Yes	RHWO	most pines killed by SPB, not beaver
WOCE	PINE	Yes	Yes	RHWO	most pines killed by SPB, not beaver
Y12SL	MPHW	No	No	RHWO	forest broken by extensive fields; trees healthy; predominately hardwoods

¹ Site: Big Turtle Park (BTP), Beaver impoundment south of East Tennessee Technology Park (ETTP), Horizon Center Industrial Park (HORIZ), Haw Ridge Park (HRP), Retention basin west of East Tennessee Technology Park (K901A), Melton Hill Dam campground (MHOA), Area north of Charles Vanden Bulck Bridge (S.R. 95 at Clinch River) (MHDV), Raccoon Creek Road (RACCR), White Oak Creek Embayment (WOCE), Y12 Sanitary Landfill (Y12SL)

² Habitat Type: predominately pine forest (PINE), mixed pine-hardwood forest (MPHW)

³Species Observed: Brown-headed Nuthatch (BHNU), Red-headed Woodpecker (RHWO)

Table 2. Red-headed Woodpecker observations on or near the Oak Ridge Reservation.

Site	Date	No. Obs1	No. Trips ²	Observers ³	Notes
HRP	-1985	1	1	RLK	
Y12SL	Sep 97	1	1	MGR, WKR	
	Jan 00	2	2	JWE, WKR	-0.3 km east of original sighting
ETTP	May 00	1	1	MGR, WKR	adult moving to and from cavity
	Aug 00	2	2	JWE, WKR	1 juvenile observed
	May 01	1-3	3	JJB, JWE, MGR, WKR	also seen on public bird walk
	Jun 01	2	1	JWE, WKR	adults carrying food to cavity
	Jul 01	1-3	2	JWE, WKR	1 juvenile observed
	Aug 01	2	2	MGR, WKR	
	Sep 01	4	1	JWE, WKR	2 juveniles observed
	Oct 01	2	2	WKR	
	Nov 01	1	3	LKL, RHL, WKR	
	Dec 01	1	1	WKR	
	Jan 02	2	2	JWE, LKL, RHL, WKR	
RACCR	Jun 01	2	1	JWE	
HORIZ	Sep 01	1	1	BRC, JMC	
WOCE	Sep 01	3	1	JWE, WKR	1 juvenile observed
MHDV	Nov 01	3	1	MKM, WKR	

¹ No. Obs: Maximum number of Red-headed Woodpeckers observed per trip

Table 3. Brown-headed Nuthatch observations on or near the Oak Ridge Reservation.

Site	Date	No. Obs1	No. Trips ²	Observers ³	Notes
MHDA	Aug 96	2	1	EMS, WKR	
	Sep 96	1	1	MGR, WKR	additional bird(s) heard only
	Mar 97	2	1	EMS, WKR	5
	Oct 97	1	1	EMS, WKR	additional bird(s) heard only
	Oct 01	2	1	WKR	
	Nov 01	2-3	2	LKL, RHL, WKR	
	Jan 02	1	1	LKL, RHL	
ETTP	Sep 96	1	1	EMS, WKR	additional bird(s) heard only
	Mar 98	1	1	MGR, WKR	Service and the rest of the service
	Sep 99	2	1	WKR	
	Aug 00	0	1	JWE	1-2 birds heard only
	May 01	1	1	MGR, WKR	No. 100-100 to the Control of the Control
	Jun 01	0	1	JWE, WKR	1-2 birds heard only
K901A	Feb 97	1	1	EMS	risules state someter forest side \$1.00° etc. 1.₹
BTP	May 01	1	2	ЛВ	

No. Obs: Maximum number of Brown-headed Nuthatches observed per trip

² No. Trips: Number of visits during which Red-headed Woodpeckers were observed

³ Observers: Jake J. Beaulieu (JJB), Betty Reid Campbell (BRC), James M. Campbell (JMC), James W. Evans (JWE), Roger L. Kroodsma (RLK), Leigh K. Loveday (LKL), Robert H. Loveday (RHL), Mary K. McCracken (MKM), W. Kelly Roy (WKR), Michael G. Ryon (MGR)

² No. Trips: Number of visits during which Brown-headed Nuthatches were observed

³ Observers: Jake J. Beaulieu (JJB), James W. Evans (JWE), Leigh K. Loveday (LKL), Robert H. Loveday (RHL), W. Kelly Roy (WKR), Michael G. Ryon (MGR), Elizabeth M. Schilling (EMS)

This nuthatch was first discovered in Tennessee in 1968 in Hamilton County, which, along with the adjoining counties of Polk and Bradley, continues to be the stronghold for breeding populations in the state (Nicholson 1997). In 1980, a site near Ooltewah (Hamilton County) was the only known regular location for this species in Tennessee (Bierly 1980). It has been observed once in Van Buren County at Fall Creek Falls State Park in 1974 (Nicholson 1997), as well as on the Natchez Trace Parkway near the Tennessee-Alabama state line (Bierly 1980). Very little is known regarding the distribution of this species in the area between Polk/Bradley/Hamilton Counties and the ORR, although Tanner (1988) has reported the species in southern Meigs County. Some of the northernmost records of this species in Tennessee are from sightings at Frozen Head State Natural Area (July 1995) in Morgan County (C. P. Nicholson, pers. comm.) and Anderson County Park (2000 Norris CBC result). Sightings in recent years have also come from Kingston Steam Plant (reliably since about 1994) in Roane County and Cookeville (2001 Cookeville CBC result) in Putnam County. This species has been recorded once (1914) on a Knoxville CBC, although some ornithologists question this record (C. P. Nicholson, pers. comm.).

Recent Landscape Changes. Natural landscape alterations that have occurred on the ORR in the last decade can be attributed, in part, to the southern pine beetle and to the beaver. Two major outbreaks of the southern pine beetle, one in 1993-1994 and the other in 1999-2001, have occurred on the ORR. Approximately 28% of the ORR was in pine or pine/hardwood forests prior to 1993. Since these two outbreaks, 790 ha of pines have been salvaged leaving approximately 1320 ha of standing dead pines and 1740 ha of living pine or pine/hardwood forests on the ORR (J. W. Webb, pers. comm.). Approximately 13% of the ORR is currently estimated to be in living pine or mixed pine forests. Fewer than 40 ha of pines have been replanted since these outbreaks, with no additional planting of pines scheduled. The latest outbreak is not expected to have significant impacts on the ORR in the 2002 season (J. W. Webb, pers. comm.).

The status and history of beavers on the ORR is not well documented. They were not present in the early 1950s, at least not in the White Oak Creek watershed, when Krumholz (1954) conducted his ecological survey of this region. Exactly when beavers recolonized the ORR after being extirpated from many east Tennessee counties is unclear. By the late 1980s and early 1990s however, their presence on the ORR was becoming evident, and by the spring of 1995 one of the longest (~50 m) beaver dams in the area was visible on upper White Oak Lake. Beaver activity that results in the stripping of bark from the entire circumference of trees, the felling of trees, and the flooding of forested areas, has led to an increase in standing dead trees and more open forest canopies on certain areas of the ORR. The areas of obvious beaver activity and impacts, though ecologically significant, are quite limited in size. With respect to beaver-killed and -downed trees, less than one percent of the ORR landscape has been impacted. We estimate 10-15 active beaver colonies (dams, lodges, or areas of significant beaver activity) were present on the ORR in late 2001.

METHODS

Site Description. The ORR consists of approximately 13,900 ha of land in southwest Anderson and northeast Roane Counties in east Tennessee (Fig. 1). Aside from an abandoned reactor project, development and expansion of waste storage facilities and landfills, and relatively minor expansions of Department of Energy facilities, a core area of the ORR remained remarkably unchanged for the 50-year period from the mid-1940s to the mid-1990s. Since then, industrial development and new construction initiatives have resulted in less than five percent of ORR lands being converted to private holdings or dedicated to new government facilities.

Monitoring Programs. A waterfowl monitoring survey route has been driven routinely since 1990 at varying intervals that have ranged from once/mo to once/wk. In addition to waterfowl and aquatic birds, all birds of prey and unusual or rare birds were recorded by experienced observers. Most observations of both Redheaded Woodpeckers and Brown-headed Nuthatches on the ORR resulted from this regular monitoring program. Observations by non-project personnel and the public serve to further validate the presence of these species on the ORR. Neither of these species have been found on breeding bird surveys conducted on the ORR since 1995 in conjunction with the Partners in Flight Program.

RESULTS

Red-headed Woodpecker. A Red-headed Woodpecker was observed in the Haw Ridge Park area (Fig. 1) just east of the ORR, in the mid-1980s by Roger Kroodsma (R. L. Kroodsma, pers. comm.). Approximately 13 km southwest of the ORR, in the Roane County town of Kingston, Jason Mitchell reported seeing adult and juvenile Red-headed Woodpeckers in the summer of 1997 (J. M. Mitchell, pers. comm.). At about this same time (22 September 1997), the first ORR sighting from a waterfowl survey occurred at the Y-12 Sanitary Landfill (Y12SL site) off Clear Spring Road in Anderson County. Since then, this species has been observed more than twenty times from six different localities on the ORR (Fig. 1, Table 2).

Considerable time elapsed between the authors' initial sighting of a Red-headed Woodpecker in September 1997 and our next sightings in January 2000 (Table 2). By the summer of 2001, however, Red-headed Woodpeckers could be observed reliably at a beaver-impounded area south of the East Tennessee Technology Park (ETTP site). Jim and Betty Reid Campbell report seeing them regularly at this location, and also found one at Horizon Center (HORIZ site, Fig. 1), a new industrial park development on the northwest end of the ORR (J. M. and B. R. Campbell, pers. comm.).

A stand of large (average diameter at breast height (dbh) ~25 cm) loblolly pine (*Pinus taeda*) at the ETTP site was flooded in the early- to mid-1990s by the construction of a beaver dam. In late 2001, these pines were in standing water, and would best be characterized as standing snags, void of most bark and of all but the largest branching. European Starlings (*Sturnus vulgaris*), Prothonotary Warblers (*Prothonotaria citrea*), and Red-headed Woodpeckers have been observed utilizing cavities in these snags. A contiguous stand of loblolly pine (mean dbh = 23 cm, n =

10) just west of the flooded snags was invaded by southern pine beetles during the most recent outbreak, resulting in ~90% kill of these trees. This is the only site on the ORR where both Red-headed Woodpeckers and Brown-headed Nuthatches are known to occur (Table 1).

Prior to 2000 there were no known nesting records for Red-headed Woodpeckers on the ORR. Nesting behavior and sightings of juvenile Red-headed Woodpeckers on the ORR have since been documented through the waterfowl monitoring program. Juveniles were observed on 24 August 2000, 11 July 2001, and 10 September 2001 at the ETTP site. A single juvenile was also observed with two adults on 10 September 2001 near the mouth of White Oak Creek (WOCE site), south of Oak Ridge National Laboratory. Although 10 September is within the species' fall migration period (Nicholson 1997), the presence of juveniles and adults together in suitable breeding habitat strongly suggests that these birds nested locally. Observations of juveniles and the carrying of food to tree cavities by adult Red-headed Woodpeckers at the ETTP site strongly indicate breeding on the ORR in 2000 and 2001 (Table 2).

Nicholson (1997) did not report any breeding activity by Red-headed Woodpeckers in either Anderson or Roane Counties for the 1986-1991 period covered by the Atlas Project. However, pre-1980 nesting records do exist for Roane County (Alsop 1980). Red-headed Woodpeckers are double-brooded throughout much of their range, but data from the ORR are insufficient to determine if that is the case here. Red-headed Woodpeckers probably now occur year-round on the ORR, though the months of known occurrence are May through January. Because of the conspicuous nature of this species, it is unlikely that it is considerably more wide-spread on the ORR than currently reported. It will not be surprising to find increased breeding activity by this woodpecker on the ORR, particularly if the area's forests become more open, and snag density continues to increase.

Brown-headed Nuthatch. We believe that Brown-headed Nuthatches were absent from the ORR until sometime very near our original observation in 1996. This species has been reported several times in recent years north of its historic range in Tennessee, in seemingly disjunct tracts of habitat. Many of these sightings have occurred outside the breeding season, although a pair with fledglings was discovered near Kingston in 1995 (Nicholson 1997). No breeding behavior or fledglings have been observed on the ORR. The occurrence of adults here during the breeding season (late February to May) however, is an indication that such discoveries may be forthcoming.

Brown-headed Nuthatches have been observed on or near the ORR more than a dozen times since they were originally discovered at the MHDA site in August 1996 (Table 3). The Brown-headed Nuthatch is known from two localities (ETTP and K901A) on, and two localities (MHDA and BTP) just off the ORR (Fig.1). Like the Red-headed Woodpecker, the Brown-headed Nuthatch is expected to occur year-round on the ORR, as it does in other parts of the state from which it has been reported.

DISCUSSION

Red-headed Woodpecker. There is considerable evidence for decreased numbers of Red-headed Woodpeckers throughout North America dating back to at least the 1930s (Bull 1964, Mengel 1965, Nicholson 1997). The widespread decline has been attributed to a number of factors including highway mortality (Bull 1964, Mengel 1965, Potter et al. 1980), nesting habitat loss (Nicholson 1997), and exposure to chemical preservatives in wooden poles (Harrison 1975, Mengel 1965, Potter et al. 1980). In many areas, reduction in Red-headed Woodpecker numbers coincided with the establishment of European starlings, and nest-site competition by starlings is frequently mentioned as a cause for the woodpecker's decline (Bull 1964, Mengel 1965, Nicholson 1997, Potter et al. 1980, Snyder and Alsop 1991). However, breeding survey data in Tennessee show an increasing trend of 6.5% (p<0.05) for the Red-headed Woodpecker from 1966 to 1994 (Nicholson 1997). The recent sightings on the ORR corroborate this trend.

Because of the timing and localities involved in the ORR sightings (Tables 1 and 2), we believe that both the influx of beavers and the two most recent outbreaks of southern pine beetles were significant factors in the appearance, and apparent breeding, of Red-headed Woodpeckers on the ORR. This species most often nests in open areas in dead trees from which the bark has fallen (Nicholson 1997). Both localities where juvenile Red-headed Woodpeckers have been observed contain such trees, and both localities bear evidence of beaver and southern pine beetle activity (Table 1). Bull (1964) notes that Red-headed Woodpeckers breed in two distinct habitat types: (a) river bottoms and open wooded swamps, with nests most often situated in dead trees standing in water, and (b) open park-like woods, golf courses, and roadsides with large scattered trees and poles. The combination of beavers moving onto the Reservation and major pine kills as a result of southern pine beetle infestations has created several areas of the former habitat type on the ORR.

The utilization of southern pine beetles as a food source by Red-headed Woodpeckers may be limited. This woodpecker's tongue is much less extensible, compared with tongues of other woodpeckers, and has hairlike processes (rather than barbs) near the tip - apparently an adaptation for a more general diet (Henderson 1927 as cited in Smith et al. 2000). Martin et al. (1951) specifically mention that few wood-boring beetle larvae are taken by the Red-headed Woodpecker, and Conner et al. (1994) state that Red-headed Woodpeckers do not normally excavate in trees for food as do other woodpecker species. While direct predation on pine beetles may be limited, Red-headed Woodpeckers do feed rather extensively on insects and arboreal invertebrates, species which are likely to thrive in dead and dying trees. They are reported to be the most omnivorous North American woodpecker and the most adept flycatcher in the woodpecker family (Smith et al. 2000).

It is interesting to note that most observations of Red-headed Woodpeckers (Table 2) and Brown-headed Nuthatches (Table 3) have occurred at localities adjacent to the Clinch River (Fig. 1). Breeding habitat for both species is sometimes associated with water. It is possible, however, that sightings have been more prevalent in these areas because most observations occurred during waterfowl surveys, or subsequent

visits to known localities that were initially discovered while surveying waterfowl. Further investigations into suitable habitats in the interior of the ORR are needed.

Brown-headed Nuthatch. The Brown-headed Nuthatch is a pine-obligate species. Although mature longleaf pine (*Pinus palustris*) forests are considered its prime habitat (Nicholson 1997), the bird's distribution virtually mirrors the distribution of native loblolly pine (compare distribution maps from Fowells 1965 and NGS 1999). Perhaps the most significant factor regarding the recent arrival of Brown-headed Nuthatches on the ORR is related to the maturity of the planted loblolly pines on the Reservation. Though they utilize younger stands, it has only been in recent years that most of these stands were sufficiently mature to be considered optimal habitat. The occurrence of Brown-headed Nuthatches on the ORR demonstrates the ability of this species to extend its range beyond the distribution of native loblolly pine, provided that suitable cultivated stands exist.

Brown-headed Nuthatches feed rather extensively on insects and tree-dwelling invertebrates, and they are known to consume wood-boring insects (Kale 1990). About half of their diet consists of pine seeds (Martin et al. 1951), although Withgott and Smith (1998) report that pine seeds can comprise 0-95% of food taken depending on the time of year and cone crop. More than half of the animal matter consumed by these nuthatches consists of beetles, with bark beetles [Scolytidae] noted as being particularly prevalent (Withgott and Smith 1998). Southern pine beetles belong to the family Scolytidae, so it is not unreasonable to expect these nuthatches to follow southern pine beetle outbreaks. While extensive loss of pines from beetle kills may eliminate a significant vegetable component (pine seeds) of this nuthatch's diet, it may also provide a significant animal component (bark beetles). It is interesting to note that southern pine beetle activity was also in evidence at both the Anderson County Park (C. P. Nicholson, pers, comm.) and Cookeville (S. J. Stedman, pers. comm.) locations where Brown-headed Nuthatches have been observed. The presence of these birds at some locations, including the MHDA site and Kingston Steam Plant, is known to precede periods of recent pine beetle activity at those locations. In any case, there can be little doubt as to the increased insect food resources that result from southern pine beetle activity.

Brown-headed Nuthatches generally excavate their own nest cavities, though they occasionally utilize existing cavities of nuthatches or woodpeckers, as well as artificial nest boxes (Withgott and Smith 1998). Because these birds favor partially rotted pine snags as nest-sites (McNair 1984) and because bark beetles are a known food source (Withgott and Smith 1998), the area's southern pine beetle outbreaks cannot be ruled out as an influential factor in the recent appearance of these birds on the ORR. The girdling of trees by beavers may also provide potential nest-sites for this species, and as McNair (1984) notes, this bird frequently selects nest sites over ponds.

Summary. The effects of beavers and southern pine beetles on forest habitats have been postulated here to be a possible factor in the return of Red-headed Woodpeckers to the ORR. These landscape-altering species have created much-improved nesting habitat for the Red-headed Woodpecker (and possibly for the Brown-headed

Nuthatch) on the ORR. Such activity opens densely forested habitats making them more suitable for the Red-headed Woodpecker, a bird that is known for its frequent associations with beaver ponds (Snyder and Alsop 1991), bottomland hardwoods (Shackelford and Conner 1997), open park-like forests (Bull 1964), and mature and standing dead trees (Nicholson 1997). Evidence of southern pine beetle and beaver activity in the immediate vicinity of known Brown-headed Nuthatch and Redheaded Woodpecker localities is summarized in Table 1.

We cannot establish a clear link between beaver and beetle activities and the appearance of the Brown-headed Nuthatch on the ORR, and any evidence linking these activities to the occurrence of either bird species is largely anecdotal. Clearly, there are numerous sites on the ORR that bear evidence of southern pine beetle and/or beaver activity that are not inhabited by either of these birds. Because both southern pine beetles and Brown-headed Nuthatches are pine-obligates, a sympatric relationship (between pine beetles and nuthatches) does not infer a causal one as well. In fact, the loss of pines may be one of the factors contributing to Brown-headed Nuthatch dispersal.

Although southern pine beetle outbreaks may provide an increased number of suitable nest-sites and temporary food sources for the Brown-headed Nuthatch, these outbreaks are not believed to be instrumental in the extension of this species' range onto the ORR. Instead, this expansion may be due to the maturation of pine plantations established since the 1930s between Hamilton County and the ORR. These plantations may have provided a corridor for the nuthatch's northward expansion. Ultimately, the potential benefits of beetle outbreaks are likely to be outweighed by the extensive loss of pines upon which this species thrives. A continued die-off of Reservation pines would likely make conditions increasingly untenable for any local Brown-headed Nuthatch colonies. The preservation of remaining healthy pine stands on the ORR is critical if the Brown-headed Nuthatch is to retain its status as a "Reservation bird". Limited Red-headed Woodpecker habitat should remain available on the ORR for at least the next five to ten years, a period during which local populations should remain stable or slightly increase.

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2001 TENNESSEE NORTH AMERICAN MIGRATION COUNT

Ron Hoff, State Compiler 282 Hackworth Ln. Clinton, TN 37716

Nineteen Tennessee counties participated in the North American Migration Count held on May 12 (Table 1). While this is down from the high of 23 counties in 1999, some people who normally cover a whole county were out of town on the date of the count. Maury County was added this year, but Campbell, Greene, Monroe, and Fayette were not covered.

One hundred fifty-six observers spent over 468 party hours finding 50,000+ individuals of 210 species. New species for the state this year were American White Pelican and Yellow-bellied Flycatcher. This brings the state total for species for this count to 248. Species found in low numbers were Black-crowned Night-Heron, Ring-billed Gull, Red-eyed Vireo, Veery, Gray-cheeked Thrush, Gray Catbird, Chestnut-sided Warbler, and Song Sparrow. Species found in high numbers were Great Egret, Mississippi Kite, Cooper's Hawk, American Kestrel, Wild Turkey, Blacknecked Stilt, Semipalmated Plover, Semipalmated Sandpiper, Mourning Dove, Great Horned Owl, Downy Woodpecker, Fish Crow, and Dickcissel.

WEATHER AND OBSERVERS

Anderson County: It was overcast and rainy early in the day in the lower elevations, but fairly clear in the higher elevations. After the rain cleared it was mild. Highlights were a couple of late Ring-necked Ducks, 18 Chuck-will's-widows, 2 Loggerhead Shrikes (difficult to find in Anderson Co.), a Swainson's Warbler, and 10 Grasshopper Sparrows. Observers: Frank Bills, Sharon Bostick, Tony Headrick, Ron Hoff (compiler), Dollyann Myers, and Boyd Sharp.

Blount County: It was overcast with some rain early, giving way to light showers later in the day. The state count's only Common Loon, Merlin, and Common Ravens (2) were found in this county, along with a Black-billed Cuckoo and a Blackburnian Warbler. Observers: Jean Alexander (compiler), Mary Laura French, Paul Hartigan, David Johnson, Tony Koella, Charlie Muise, Paul Super, and June Welch.

Cheatham County: The weather was partly cloudy with mild temperatures. A Yellow-bellied Flycatcher was the main highlight. This was a new species for the count. Also of interest were a Gadwall, 12 Whip-poor-wills, 3 Willow Flycatchers, and a Philadelphia Vireo. Observers: Jerry Drewry, Joe Stone, and Sabin Thompson. Data compiled by Jan Shaw.

Davidson County: The weather was partly cloudy with mild temperatures. Some late species added to this county's tally, including Blue-winged Teal and White-throated Sparrow. Three Nashville Warblers and 2 Palm Warblers accounted for a substantial portion of the state totals for these species. Observers: Gary Casey, Phillip Casteel, David Dortch, Frank Fekel, Mark Hackney, Barbara Harris, Trish McFadden,

Table 1. Tennessee North American Migration Count, May 12, 2001

Species	And	Blount	Cheat	David	Hamil	Jeff	Knox	Lake	Maury	Mont
Common Loon	-	1	-					-	-	~
Pied-billed Grebe	1	-	127		-	3	72	4	2	52
American White Pelican	-	-			•	-	1.7	10	2±	
Double-crested Cormorant	1	3	9	-	1	3	-	27	64	
American Bittern	24	150	100		12	2	12	Œ	-1/4	1
Least Bittern	+1		741			19	4	1(H)	13	14
Great Blue Heron	16	16	19	4	70	6	23	209	19	21
Great Egret	55	1.75%		16		120	1	260	2	1
Snowy Egret	+1	-	-	-		-	0-	6	-	1
Little Blue Heron	20	-	-	-	- 2	12	:2	26	1	- 2
Cattle Egret	-6		-		-	-	-	6		
Green Heron	4	4	2	7	15	1	1	5	15	10
Black-crowned Night-Heron	-	2	4	2		-	2	4	4	22
Yellow-crowned Night-Heron	+1	4	200		1	-		5	-	34
Black Vulture	1	3	30	3	20			5	70	62
Turkey Vulture	9	7	20	9	29	3	1	23	50	88
Canada Goose	92	81	30	16	108	36	12		109	36
Wood Duck	1	9	5	7	8	15	6	6	3	30
Gadwall	-	-	1		*	-	~	1	32	2.4
Mallard	16	21	5	6	57	17	7	116	14	16
Blue-winged Teal	23	123	1	2	141		5.	9	1	- 2
Northern Shoveler		190	-	-	171	17	- 2	2	-	10
Green-winged Teal	+0	7.5	-		(ec	; -		-	100	4
Ring-necked Duck	2	5.0	-			2	54	2	14	1
Lesser Scaup	51	7.5	100		53	1.7	17	15	1	13
Hooded Merganser	24	1	÷.	-	-	1,2	- 2	14	12	12
Osprey	2	5	8.73		1	12	1	2	1	1
Mississippi Kite	+3	-	-	-	- 1	7	54	21	14	69
Bald Eagle	2	1	-	2		-		3	1	1
Northern Harrier	*:	150		3.7	*5	17	177	1	27	27
Sharp-shinned Hawk	20	2	120	1	142	3	5	12	1	1
Cooper's Hawk	1	1		1	1	1	1.0	1	3	4
Accipiter sp.	£.	-		-	-	12	5.4	-	54	9
Red-shouldered Hawk	5	1	3	-	6	-	21	5	- 1	3
Broad-winged Hawk	51	3	1	1	5		95	:5	1	5
Red-tailed Hawk	4	4	5	10	14	4	4	21	11	23
American Kestrel	7.1	F-3	1	5	1	2	-	1	15	4
Merlin	¥5	1	-		2.7	32	14.		7.2	-
Peregrine Falcon	-				1	σ.	177	1		-
Wild Turkey	2	8	5		2		93	2	16	21
Northern Bobwhite	50	11	2	17	10		2.1	20	16	43
Sora	**		(m)	(∞:	*:	14		1	E-	-
American Coot		127	2	1	21	3	-	12	7	2
Black-bellied Plover	55	175	38	2,5			- 7.	18	1.5	-
Semipalmated Plover	*:	25	1	-	10	19	140	159	34	(4)

Putnam	Ruthfd	Sevier	Shelby	Stewart	Sumner	Warren	Wmson	Wilson	Totals
							_		
=				-	*				1
1	-	+	4	-		-			6
-	-			+		-		-	10
24*	4	*	3	5.	20	7		24	156
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		-	4		-				31
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			18	+		-			24
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-	2	(3)	-	-	19	-	-	5	44
-			3	-		-		=	9
4	12	-	1	-	1	141	19	16	247
85*	19	19	4	6		23	14	11	335
127	14	15	110	24	30	44	8	21	913
9		1	14	26	-	17			142
*	-				-		-		2
12	11	21	47	3	60	13	18	-	460
			2	-	- 40	-		=	15
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-	(4)					40	12	8	15
	2					-		*	15
1	(*)		63	5		3.5		-	85
-	340	(*)	2	1		-		=	9
*			-	9	(7)		-	5:	1
1	-	4	- 41		240		4	1	7
3	1		1	-		-	2	2	21
1							*	-	1
7			5	1		1	19	Ū	37
2	1		4				2	_	25
270	(3		11757				~		
11	4	1	6	1	120	4	8	4	131
17	1	-	2	-	20	9	4	4	64
	*		(*)	5	*	-			1
2.	-		-	2			- 52	2	2
2	7	100	4	÷	**	1	5	3	78
18	10	4	10	2	•	9	8	8	188
85.00 \$5	1	-	100	-	1.51	3			2
		-	5-6	8	1	1		3	18
2.	127	-21	72	2	ą.	20	- 2	3	18
*		25			9.0		1.5		170

Species	And	Blount	Cheat	David	Hamil	Jeff	Knox	Lake	Maury	Mont
Killdeer		7	4	1	37	2	-		39	16
Black-necked Stilt	-	+:		-	-	500		60	-	
Greater Yellowlegs		- 2	2	-	1	-	-	16	4	-
Lesser Yellowlegs	1	_	2	_	8	-		64	13	
Solitary Sandpiper		9	ť	1	14	2	-	22	11	1
51 27.25 					9.40					
Spotted Sandpiper	8	1	1	7.7	13	•	-	2	5	
Upland Sandpiper	79			-		*	-	1	-	(*)
Ruddy Turnstone	-	3	-	2	-	-	21	1	21	1.2
Semipalmated Sandpiper	1	3	-	5	1	1.7	5.5	291	10	/ 1
Western Sandpiper	*				3	-	4.1	6	-	-
Least Sandpiper	25	÷.	7	-	60	0.50	UH:	126	4	S#1
White-rumped Sandpiper			-	-			-	1	-	OH C
Peep sp.	-	27	-	- 2	1	12	21	7.2	21	12
Pectoral Sandpiper		-		-	2		-	19	*	100
Dunlin	94	=	-	4	-	-	-	5-2	-	-
CON C								140		
Stilt Sandpiper	:5	*	5	177	1.0	*		2		
Short-billed Dowitcher	*	8	4	-	16		-	36		100
Common Snipe	-	2	0	2	2	-				3
American Woodcock	8	7	-	*	*		177		17	1
Ring-billed Gull	-	-	~	-	2		-	3	*	1
Caspian Tern	22	5	-		-	653	~	9	-5	-
Common Tern	12	8		9	5		-	5	**	-
Forster's Tern	-	7	9		4		- 5	26	6	1,7
Least Tern	*	8	-		-	-		7	-5	1.0
Black Tern	12	-	<u> </u>	2	2	*	-	4	23	
Rock Dove	13	108	1	38	29		(6)	15	55	48
Eurasian Collared-Dove	84	2	-	2	3	-	23	3	20	-
Mourning Dove	72	79	9	25	175	7	4	375	135	257
Black-billed Cuckoo	-	1	2	-	-	-		1	-	-
Yellow-billed Cuckoo	3	4	2	5	5	-	1	24	11	7
renow panea cuerco	8		fi)	·	್				***	7.
Barn Owl	-	*	-	3	4	9#1		561		(+)
Eastern Screech Owl	1	3	1	-	2	20	-	-	2	721
Great Horned Owl	1	2	3	7	3	1,00	7.5	1	16	1
Barred Owl	4	3	1	4	2		-	8	3	3
Common Nighthawk	1	3	-	1	3	2	-	2	12	7
Chuck-will's-widow	18	2	-	2	1	-	41	-	6	4
Whip-poor-will	1	2	12	2	2	2	2	-	2	4
Chimney Swift	221	123	10	101	137	10	4	63	37	161
Ruby-throated Hummingbird	4	5	4	6	4	12	1	16	9	17
Belted Kingfisher	3	5	2	4	10	*	12	1	8	7
Red-headed Woodpecker	į.	Į.	1	:4	3		2	27	6	18
Red-bellied Woodpecker	14	20	3	29	30	4	2	33	36	49
Downy Woodpecker	5	7	4	24	18	1	1	23	33	25
Hairy Woodpecker	1	2	1	5	5	1	-	5	6	3
Northern Flicker	3	6	2	9	16	2	1	30	2	19
TANTAICHT LIICKEI	3	0	4	- 5	10	-	£:	50	4	19
Pileated Woodpecker	4	13	2	6	14	27	2	11	13	11
Olive-sided Flycatcher		-3		- 5	1	, Š	*:	- 5		
Eastern Wood-Pewee	5	13	6	18	13	1	-	24	23	60

Putnam	Ruthfd	Sevier	Shelby	Stewart	Sumner	Warren	Wmson	Wilson	Totals
28	2	6	42	4	3	10	3	18	222
(5)	-	33	47			-	8	(2)	107
	1,0	-			3	\sim	-	-	21
*	1		7	17		-	-		96
3	~	1	1			*	-	S +-	66
5			3	1	17	1	-	1	41
-	-		-			-	+	-	1
	1	12	141			-	2	-	1
0.70			4	7	- 7		70		307
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2		15	349			-			573
1+1	-	-	-			-	-	-	1
1	2	- 2	2			2	2		1
175					17		(5)		21
**		:+	1	(6)	*	+	*		1
			. • :	1, 4-1		_	_	11.00	2
	-		-			-	-	-	52
101	0	1	-	72	€	0	9	12	5
1	=		- 73	-				353	2
		94	-	(+)			-	(+)	4
3-3	-				-	-	-		9
4	-	-		-		-	-	-	5
3.25	15	0	-	-	14	~	2	1	47
5 * C	-	-	1		-	-	-	100	8
5945	-	14	(4)	(*)	12	g.	~	(4)	4
65	3	6	262			10	3	22	678
-	-	4	2	-	12	-		(2)	8
328	24	37	238	2	12	53	38	64	1934
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2	_		-		_		_		2
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1	-		1	-				-	26
2	2	1	2	2	2	-	1	5	43
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8			5		-		, u	3	45
4	9	2	1	7.2	8		-	2	30
116	58	30	77			11	28	7	1194
15	3	1	32	(*:		4	4	6	131
9	ũ	1	1	12-1	8	2	7	3	63
6			15	3.3.	~		3	4	83
79	8	3	61	1	Ž.	10	20	13	415
19	5	1	28	1	-	1	7	8	211
9	2	2	7	-	17	-		-	48
11	*	*	12	2	Ī	2	8	1	117
07		2							
27	1 - 7	3	14	2	-	1	8	3	132
		-			77	1			4

Species	And	Blount	Cheat	David	Hamil	Jeff	Knox	Lake	Maury	Mont
Yellow-bellied Flycatcher	2	12	1	~	420	2	2	¥	42	3
Acadian Flycatcher	4	14	2	19	2	_		13	17	21
Willow Flycatcher	(#)		3	-	-			2	1	
Least Flycatcher	-	2	3			Ţ	į.	2	į	1
Eastern Phoebe	15	23	2	9	16	9	2	4	35	10
Great Crested Flycatcher	6	8	7	22	29	1	. 3	20	14	47
Western Kingbird	9	13	9	17	21	6	4	53	44	72
Eastern Kingbird				17	31					
Scissor-tailed Flycatcher	2	15	7	127	7	-		1	- 0	7
Loggerhead Shrike	2				1	-	*	5	1	
White-eyed Vireo	12	8	5	10	34	9	3	31	26	30
Yellow-throated Vireo	11	3	2	5+3	2	-	7.	1	4	5
Blue-headed Vireo	2	5	49	(2)	5	-	-	-	9	1
Warbling Vireo		-	3	1	-	2	1	54	9	13
Philadelphia Vireo	1	17	1	1		77	1.5	1	1	1
Red-eyed Vireo	29	91	3	30	92	1	2	19	27	30
Blue Jay	17	54	3	34	78	6	2	23	43	207
American Crow	59	120	8	59	225	16	8	117	77	264
Fish Crow	-	-	-	37	-	-		89	6.0	201
Common Raven	15	2	100	(**)	1.0	9	9	-		- 3
The state of the s										
Horned Lark	15	15"	7.	350		3	1.7	248		1
Purple Martin	2	4	5	7	75	7		90	72	77
Tree Swallow	10	17	4	3	10	15	1	17	24	4
N. Rough-winged Swallow	22	18	5	11	32	35		1	61	83
Bank Swallow		12	# S	-	7.0	4	-	2	1.2	3
Cliff Swallow	150		100		276	-			50	340
Barn Swallow	40	92	6	11	97	10	4	75	44	128
Black-capped Chickadee		2	20	192		2	2	- 2		
Carolina Chickadee	25	75	5	93	57	5	8	48	59	76
Tufted Titmouse	16	46	5	51	62	-	4	31	44	79
Red-breasted Nuthatch		1								
White-breasted Nuthatch	4	6	4	7	8	2		5	14	13
Brown-headed Nuthatch		-			9	1		-		13
Brown Creeper	1.75	-		7.5	-		9			
Carolina Wren	27	51	3	38	70	6	6	23	84	89
	127				120	2			12	122
House Wren	1	3	1		2	2		-	9	11
Winter Wren	-	(2)			-	*	94	5		12
Sedge Wren	151	34	-	15	1		177	17.	्	1.5
Marsh Wren	-	-			-		9	17.5		-
Golden-crowned Kinglet	2	-		-	=	3	- 1		-	
Blue-gray Gnatcatcher	25	32	18	57	57		7	59	79	49
Eastern Bluebird	40	69	10	20	73	14	3	20	55	199
Veery	±1	1	1	3.5	1	-	25	3	1.7	1
Gray-cheeked Thrush	₩:	-	1	1	-		-	2		1
Swainson's Thrush	3	2	2	51	10	0	12	2	2	5
Hermit Thrush	2.	240	-	41	41		4	2	14	1
Wood Thrush	27	25	4	9	21	1	1	10	30	26
	4.1	4.3	-	- 3	-1			10	- 217	40

Putnam	Ruthfd	Sevier	Shelby	Stewart	Sumner	Warren	Wmson	Wilson	Totals
-	-	-	: *)					_	1
81**	1	6	60	2		-	5	-	164
1		-	-	1		_		-	8
1	-		340	-	-	-	2		4
61	-	16	6	2	12	10	14	11	236
44	9	4	62	-	_	4	12	15	309
44	,	1	63	2	-	*	13	15	3
81	22	2	28	1	1	32	18	39	482
-	-	-	2.0			52	-	-	1
12	- 1	- 2	5	12	9	1	2	- 2	24
						•	-		
149**	5	3	65	6	32	2	22	2	264
39	2	2	17	4	12	1	3	2	96
7	+	3		-		-		+;	23
1		~	6	45	12	-	4	4	96
- 2	3		•	-		-	-	-	5
666**	20	58	39	_	2	5	9	7	462
165	55	12	79	-	1	16	36	47	878
306*	7	25	41	3	8	54	39	45	1175
500		2.0	18	-	-	39	-	-	107
	2	-			- 2	-	-	*	2
729									
5		-	20	28	12	-	2	-	274
48	10	8	41	**	1	12	6	35	500
24*	1	10	1	-	9	2	-	- ;	119
57	2	12	12	-	3	4	11	2.0	334
35	٠	1.5	173	*		-			5
19	9	0	122	- 2	0	- 2	40	- 0	975
196	19	42	112	8	8	46	12	57	1007
-	14	2		*		-	4		2
89	14	13	57	4	72	2	23	24	675
144	10	11	92	=:	97	8	41	31	675
	2	5		-		ş	2	2	6
13	-	3	11	1			5	3	99
-	ŝ				-	_	-	-	9
-	-	3	-	2	-			4	3
177	12	35	82	2	15	7	25	17	754
32**					72				20
32	1	1		- 5	*	-	3		30 1
		1		- 2				20	1
-	Ĩ.	-	2	- 2		-			2
		4	-		-	8	2 ¥	-	4
		-							
102	30	2	100	5	17	1	26		674
307**	44	46	35	4	2	86	43	56	819
721	្វ	22	2	2	14		9	27	9
	- 5	27	2	*	27	3	5	-	7
8	6	54	22	- -	₹ =	¥	4	1	116
•			(**)					3	4
105	20	18	34	2		1	9	7	350
430	75	43	96	7	12	51	47	52	1644
250	, 0	•0	70	3.5	***	52.4		150	

Species	And	Blount	Cheat	David	Hamil	Jeff	Knox	Lake	Maury	Mont
Gray Catbird	3	9	1	4	1	-		8	1	8
Northern Mockingbird	28	55	2	15	112	5	1	52	78	151
Brown Thrasher	10	18	4	1	55	2	1	26	49	40
European Starling	115	259	4	139	441	19	•	503	581	440
Cedar Waxwing	50	198	55	65	272	35	12	26	76	92
Plus winged Weekler						~			2	
Blue-winged Warbler	3	2	- 2	-	5 4	ŝ	2	2	2	e e
Golden-winged Warbler Tennessee Warbler			3		1.7			20	2	22
	(%) (4)	95 S		28	•	*	-	20		
Orange-crowned Warbler Nashville Warbler	22	-	-	3	-	-	-	1	1	1
Nashville warbier		-	-	3	-	-	-	1	1	2
Northern Parula	3	12	5	4	-	-	-	14	8	12
Yellow-Warbler	2	5	5	5	4	2	1	11	6	-
Chestnut-sided Warbler	8	2	177	4	1	~		2	1	2
Magnolia Warbler	1	*		12	3	-	1	5	7	3
Cape May Warbler	-	-	G.	3	1	Ť	2	-	*	
Black-throated Blue Warbler		3	14	-	-	-	_	-		3
Yellow-rumped Warbler		3	2	1	1	+		1	-	2
Black-throated Green Warbler	8	29	5	6	25	•	-	77.5	2	5
Blackburnian Warbler	100	1	-	14	37	20	-	-	2	2
Yellow-throated Warbler	14	5	5	*	•	*	-	5	8	7
Pine Warbler		14	3	14	17	4	0	ě:	2	3
Prairie Warbler		1	3	-	41			-	7	30
Palm Warbler	2+2		1	2	1		_	1	1	1
Bay-breasted Warbler			12	3		2	2	1	2:	1
Blackpoll Warbler	1	1	77	14	2	77	1	24	1	6
Cerulean Warbler	27	-2	- 4	-	1	2	2	2	2	3
Black-and-white Warbler	10	17	2	1	9	-	_	1	4	-
American Redstart	34	-	1	i	4	-	_	6	2	6
Prothonotary Warbler	543		7	5	5	2	_	42	5	19
Worm-eating Warbler	9	11	3	2	17	÷	Ξ	5	7	5
Swainson's Warbler	1	12		5	1	2		2	2	
Ovenbird	20	35	-		9	-		1	-	3
Northern Waterthrush		-	-	190	-	2	_	1	1	-
Louisiana Waterthrush	4	2	1	1	120	2	2	1	5	5
Kentucky Warbler	15	2	5	7	1	7.		11	15	4
Common Yellowthroat	14	26	9	47	21	4	5	50	50	86
Hooded Warbler	21	20	4	4	9			1	5	3
Wilson's Warbler	-	20	13	-	-	-	-		-	-
Canada Warbler	22	1	1		-	Q.		ŝ	- 2	1
Yellow-breasted Chat	17	19	4	24	49	1	6	27	41	22
Summer Tanager	3	1	10	13	5	1	-	8	77	12
r		25	-	-					4.5	
Scarlet Tanager	14	25	5	5	11	-	1	1	16	14
Eastern Towhee	30	17	3	18	.93	2	9	8	34	63
Chipping Sparrow	24	55	4	2	35	- 5	7	2	26	44
Field Sparrow Lark Sparrow	21	5	9	54	57	÷	4	25 1	47	36
The conductive property of the service of the servi	(50		12							174
Savannah Sparrow	1	25	2		13	-	9 2	57	-	7
Grasshopper Sparrow	10				7	- 2		41	3	5
Song Sparrow	37	59	2	1	68	6	3	16	2	-

Putnam	Ruthfd	Sevier	Shelby	Stewart	Sumner	Warren	Wmson	Wilson	Totals	
24		2	4	1		2	4	1	73	
160**	20	24	67	3	7	69	20	77	786	
72	12	5	14	2	1	21	14	17	364	
875	8	120	187	8	20	227	56	223	4225	
48	15	4	154	9	5.0	15	33	-	1150	
26			1				6	-	40	
20			1	8			14	2	8	
11		874	34	2			3	3	123	
	4	-	-			-	- 54	+	1	
<u></u>		-	2	Ş			-	-	7	
49		6	57	3			2	+	175	
37	-	3	1	9		1	3	_	84	
5	1.0	5	8	-		10		_	38	
4	1	-1	7	-			2	-	46	
7	100	2	-		-	-	-2	-	11	
		2	23	_	3.5		-	_	8	
- 2	1	-	<u> </u>	2	12			-	11	
12		16	6	-	200		4	-	118	
2	-		-	9	160	-	7 4	1	4	
27	122	4	4	9	•	2	3	<u>V</u>	82	
16	2	2	3			90	-	-	62	
93	8	1				1	3	- 5	193	
		1	- 1				- 2	ಿ	7	
2	2	-	2			4	į.	1	12	
14	2	357	4	5				1	71	
			20							
49**		123	22	-	2.0	-	1	-	58	
32	- 7	4	4				3	5	87	
51	-	3-3	95						200	
1 10	8	-	40 5	4	-	1	3	8 2	148 64	
10								-		
		-	4	3	-		-	-	8	
44	7	20	1	5			2		135	
1	1		1	*		-		-	5	
18**		3	7	· ·		-	3	-	32	
78	1	2	44	€.		3	13	=	201	
409**	30	10	36	16	0.50	12	25	12	453	
63	**	20	12	2		1	5		168	
1	2.40	9-1	1	· ·		*	=	Ε.	2	1
***	10	4			-	,	9.4	3	5	
114 99**	15 40	5 1	13 73	1 2	100	6 1	14 12	16	381 275	
,,,	10	•	,5	ā			1.2	10	270	
47	2	10	7	75		7	11	2	171	
152**	12	12	25	.=		2	22	14	364	
241**	5	175	11	975	170	9	12	4	233	
136	16	4	20	:= :2		5	40	36 1	515 2	
			-	-			-	1	2	
1	•	-	2	2		(9)	(**)	-	85	
8	-	1	2	2	22	1	4	1	79	
295*	1	40	*	3	1	3		-	242	

Species	And	Bloun	t Cheat	Dav	id Hami	il Jeff	Knox	Lake	Maur	y Mon
Lincoln's Sparrow			2	72			1	1		9
Swamp Sparrow			1				1	*		1
White-throated Sparro	w -	100	1	1			î		- 2	-
White-crowned Sparn		12	· .			2	1			1
Dark-eyed Junco	-	25		- 1	-	. ::			15	1
Northern Cardinal	64	115	10	177	213	12	8	91	180	243
Rose-breasted Grosbe	ak 1	1	-	2	5	-	-	5	2	4
Blue Grosbeak	4	6	2		7	-		14	10	4
Indigo Bunting	72	155	15	92	150	7	4	331	214	138
Painted Bunting	3.5	-			-	ŝ		*		
Dickcissel				. .	-		-	687	6	89
Bobolink	-	(*)	-	-	67	-		3	~	4
Red-winged Blackbird	60	114	5	65	94	20	4	754	235	242
Eastern Meadowlark	35	49	3	4	48	2	-	110	117	127
Common Grackle	56	123	6	132	111	26	3	196	350	255
Brown-headed Cowbi	rd 13	26	7	31	118	1	7	121	32	88
Orchard Oriole	3	3	4	7	8	-	6	93	48	17
Baltimore Oriole		1	-		- 2	1	□	96	1	6
Purple Finch	1.0	11			-			-	1	3
House Finch	12	49	3	22	45	4	1	4	31	49
American Goldfinch	71	88	10	101	82	8	5	30	43	160
House Sparrow	4	26	5	-	19	-	-	37	38	188
Total individuals	2118	3185	690	2133	4871	359	217	7033	4512	5995
Total species	107	111	113	98	127	46	56	157	129	135
EFFORT:										
Observers	6	8	3	14	17	1	2	9		17
Feeder observers	2						9		-	4
Feeder hours	3	3.6		-	-	0.5				-
Parties	2	4	1	/ in	-	1	2	4	-	8
Party hours	22.5	34	14	19.5	60	4	4.75		2.5	101
Hours by car	11	10.5	3	3	40	1.25	0.25	*	3 +	60
Miles by car	207	163.5	99	39	456	10	2	-	52	779
Hours by foot	7	23	10	16.5	20	2.25	4.5	1.7	-	41
Miles by foot	6	18	7	14.5	23	2	4		*	24.5
Hours owling	1.5	0.5	1		3	- 12	- 1			2
Miles owling	15	1.25	10		39	-			-	
Temperature (deg. F)	55-70	62-85	64-76	64-76	61-78	64		80s	1.0	64-76
0 4 4 6	00-2130	₩.	0500-1900	0530-1430	0515-1830	0830-1230	0700-1845		12	-
Spring Count	No	No	No	No	Yes	No	No	No	Yes	Yes

Putnan	n Ruthfo	i Sevie	Shelby	Stewar	t Summ	er Warr	en Wmso	n Wilson	Total
	1		1						4
-			1						3
	-			8	-	1	22	10-0	
-			-	_	-	7.			4
7			•	7		*		: 60	1
-	-	12		-	-	-	-		13
393	50	45	162	6	10	42	72	74	1967
3	2	79	1	J	- 2	1	· -	1,20	27
59**	1	4	7	- 4		15	4		78
892**	200	85	262	14		30	59	40	1868
말	-	:-	1	$\overline{}$	-	-	25	820	1
		-	180					0.40	962
2	-	- 12	2	-	-	2	12		76
399	100	115	408	5	1	39	31	41	2732
279	20	30	108	2		56	56	66	1112
170	20	79	108	2		22	46	56	1761
170	20	**	100				40	50	1701
106	100	12	151	18	1	18	28	10	888
101	8	7	14	2	5.0	2	9	7	339
4	1	=	26	-	7.		-	5	140
		17	1	+	=			2	7
48	15	12	34	×	2	2	12	6	349
115	9	42	52	6	_	57	59	45	983
156*	40	11	89	7	1	4	16	2	487
	10			F 3.	*			177	
10606	1368	1336	5387	251	227	1249	1415	1524	50351
126	87	87	138	55	26	74	88	83	210
5	151	: :=	5	5	*	-		350	
-	-	-	-	-	-	-	-	4+3	-
14	1	3	27	7	2	4	12	9	156
7.		577	3		*	*			1.0
-	~		7.5	94	~	-	(*)	9.5	24.1
6	1	.2	8	1	1	1	923	5	45
76.25	16	12.25	46	*	4	11.75	16.25	26.33	468.58
53.25	4	9	17	14	1	11	3.75	16.85	244.85
513	50	130	100	-	15	137	53	66	2819.5
23	12	2.5	29	2	3	0.75	12.5	Sec. 1	209
19	5	2.5	19	1	2	1	6		154.5
3.75			2						11.75
65			8	-					138.25
60-79	.2,	50-80	60-80	2	68-76	60-80	64-76	64-71	50-85
0400-2015	0300-1900	0700-1915	0500-2200	- 09	900-1300		0700-1400	0600-2030	0.0000
Yes	No	No	Yes	No	No	No	No	No	

John Noel, Elizabeth O'Conner, Robert Rich, George Rentschler, Mike Smith, Melinda Welton, and Mary Zimmerman. Data compiled by Jan Shaw.

Hamilton County: Spring Count. Although it was overcast most of the day with mostly mild to warm temperatures, rain was limited to less than 0.1 inches. The state count's only Brown-headed Nuthatches (9) and Sedge Wren (1) along with half of the Peregrine Falcons (1), Olive-sided Flycatchers (1), and Golden-winged Warblers (4) were found here. Other highlights were a Yellow-crowned Night-Heron, 16 Short-billed Dowitchers, 2 Common Snipe, and Eurasian Collared-Doves. Observers: Nelson Bennett, Kevin Calhoon (compiler), Janice Chadwell, Jack Colcolough, Ken Dubke, Anita Gaddy, Danny Gaddy, Bill Haley, John Henderson, Jonnie Sue Lyons, Bonnie Johnson, Tom Patton, Judy Newsome, Debbie Shannon, Roi Shannon, David Spicer, and Vicky Taylor.

Jefferson County: Again this year there was only one observer for the county. He reports cloudy conditions and some light rain and mild temperatures. Some interesting finds were American Coots, House Wrens, 35 Cedar Waxwings, and a Summer Tanager. Observer: Howard Chitwood.

Knox County: The weather was drizzly and overcast in the morning and then turned hot and sunny in the afternoon. Only two observers counted as most of the regular participants were in the surrounding counties. Highlights for this count were a Great Egret, a Warbling Vireo, a Lincoln's Sparrow, and a late White-throated Sparrow. Observers: Boyd Sharp and Chris Welsh (compiler).

Lake County: The weather was sunny and breezy, with temperatures in the low 80's. This is typically the county with the highest number of species, and it was again this year. Ten American White Pelicans were new to the count. Participants were responsible for finding the state's only Least Bittern (heard only), Northern Shovelers, Northern Harrier, Black-bellied Plovers, Ruddy Turnstone, Western Sandpipers, White-rumped Sandpiper, Upland Sandpiper, Stilt Sandpipers, Caspian Terns, Common Terns, Black Terns, and Scissor-tailed Flycatcher. No statistics for party hours, miles, etc. were turned in. Another 10 species were found during count week. Observers: Hap Chambers, Bob Foehring, Mark Greene (compiler), Betty Leggett, Ken Leggett, Don Manning, Nancy Moore, Mike Todd, and Jeff Wilson. Jon Dunn and Brainard Palmer-Ball ran into the group later in the day and added a couple of species to the county list.

Maury County: Spring Count. No information on weather, party hours, miles, participants, etc. was turned in. Highlights of the count were 64 Double-crested Cormorants, a Lesser Scaup, 7 American Coots, 16 Great Horned Owls, a Willow Flycatcher, a Philadelphia Vireo, a Northern Waterthrush, and a Purple Finch. Compiler was Tommy Edwards.

Montgomery County: Spring Count. The skies were mostly cloudy in the morning but turned sunny in the afternoon. It was also windy with mild temperatures. Participants found the state's only American Bittern, Orange-crowned Warbler, and a White-crowned Sparrow. Other interesting sightings were a Snowy Egret, 43 Northern Bobwhites, 1 (of 2 in the state) American Woodcock, a Least Flycatcher, 3 Bank

Swallows, a late Hermit Thrush, 7 Loggerhead Shrikes, 2 Nashville Warblers, and 3 late Purple Finches. Observers: Joe Allen, Danielle Evans, Paul Evans, Elaine Foust, Andrew Hall, Joe Hall, Matthew Hall, Debbie Hamilton, Steve Hamilton, Annie Heilman, Rebecca Houtman, Bill Milliken, Gloria Milliken (compiler), Evelyn Nixon, Sallie Noel, Joe Schiller, and Stanley York.

Putnam County: Spring Count. Weather conditions were overcast with intermittent rain and some wind in the morning, turning mostly clear with some wind in the afternoon. Double-crested Cormorant, Green Heron, Turkey Vulture, Common Nighthawk, American Crow, Tree Swallow, Song Sparrow, and House Sparrow were found in record numbers for the Putnam County Spring Count. In addition, Acadian Flycatcher, White-eyed Vireo, Red-eyed Vireo, House Wren, Eastern Bluebird, Northern Mockingbird, Cerulean Warbler, Louisiana Waterthrush, Common Yellowthroat, Summer Tanager, Eastern Towhee, Chipping Sparrow, Blue Grosbeak, and Indigo Buntings were reported at all time high numbers for the county as well as highest numbers for the Spring Count. Ring-necked Duck, Mississippi Kite, and Willow Flycatcher were found for the first time on the Putnam County Spring Count. Also of interest were 2 Barn Owls with 6 young, 26 Blue-winged Warblers, and a Wilson's Warbler. Observers: Daniel L. Combs, Ginger K. Ensor, Graham S. Kask, R. J. Moore, Kenneth L. Morgan, Michael P. O'Rourke, John Owens, Mary Peterson, Thomas Roberts, Richard W. Simmers, Jr., Barbara H. Stedman, Stephen J. Stedman (compiler), Catherine E. Walden, Winston A. Walden.

Rutherford County: The weather was partly cloudy with mild temperatures. Highlights for the county were a Sora, 15 Forster's Terns, a Northern Waterthrush, 40 Summer Tanagers, and a Lincoln's Sparrow. The lone observer was Jay Desgrosellier. Data compiled by Jan Shaw.

Sevier County: The weather was cloudy to partly cloudy, with some fog at the higher elevations. Never high in total species, this county traditionally turns up species not found elsewhere in the state because of the higher elevations. This was proven again as the participants found the state's only Black-capped Chickadees, Winter Wrens, and Golden-crowned Kinglets. Also of interest were 5 Red-breasted Nuthatches, 4 Canada Warblers, and 12 Dark-eyed Juncos. Observers: Susan Hoyle (compiler), Kristine Johnson, and Martha Rudolph.

Shelby County: Spring Count. A breezy day started out cloudy and then turned clear with mild temperatures. Interesting sightings were a Lesser Scaup, 63 Mississippi Kites, 47 Black-necked Stilts, 349 Least Sandpipers, a Dunlin, the state's only Western Kingbirds and Marsh Wrens, 5 Loggerhead Shrikes, 4 Swainson's Warblers, a Wilson's Warbler, and a Lincoln's Sparrow. The Western Kingbirds eventually bred locally. The Blue-winged Warbler was the latest spring date for the county. The Purple Finch was the latest west Tennessee date. Eastern Bluebirds and Field Sparrows were in unusually high numbers, while Northern Bobwhites, Red-headed Woodpeckers, Gray-cheeked Thrushes, Swainson's Thrushes, Swainson's Warblers, and Bobolinks were in unusually low numbers. Dunlin and Wilson's Warbler were observed by Jon Dunn and Brainard Palmer-Ball. Observers: Audrey Bohl, Casey

Bohl, John Bohl, Bob Browne, Rob Browne, Carolyn Bullock, Lillian Durand, Kate Gooch, Barbara Hardin, Van Harris, Martha Heinemann, Anne Hooper, Margaret Jefferson, Kay Lait, Jill McQuown, Susan McWhirter, Gerry Papachristou, George Payne, Jeanne Payne, Rob Peeples (compiler), Gaynell Perry, Dick Preston, Forrest Priddy, Virginia Reynolds, Susan Stewart, Ed Thomas, and Martha Waldron.

Stewart County: There were no weather conditions reported for the county. A 2 mile nature walk at Cross Creeks N.W.R. turned up a few interesting sightings. They were 3 Great Egrets, 26 Wood Ducks, a Bald Eagle, and a Willow Flycatcher. The compiler was Sarah Welker.

Sumner County: The weather was partly cloudy with mild temperatures. Although only censused for 4 party hours, observers managed to find an American Coot and 19 Black-crowned Night-Herons. Observers: Dick Newton and Grace Newton. Data compiled by Jan Shaw.

Warren County: The weather was cloudy and cool with some wind in the morning, becoming partly cloudy and mild with some wind in the afternoon. Highlights included 17 Wood Ducks, an Olive-sided Flycatcher, a Loggerhead Shrike, and a late White-throated Sparrow. Observers: Benton Basham, Crystal Malone, Doug Malone (compiler), and Virginia Veach.

Williamson County: The weather was partly cloudy with mild temperatures. Species of interest were 2 Cooper's Hawks (never easy to find), 5 Wild Turkeys, 2 Loggerhead Shrikes, and 6 Blue-winged Warblers. Observers: Sue Ansley, David Buchanan, Jean Buchanan, Ed Byrne, Richard Conners, Troy Ettel, Tarcila Fox, Ed Gleaves, Adrian Robins, Jan Shaw (compiler), Dee Thompson, Rita Venable.

Wilson County: The weather was partly cloudy with some wind. Highlights included 3 American Coots, 3 late Hermit Thurshes, One of the few Blackburnian Warblers found in the state, a Lark Sparrow, and 2 late Purple Finches. Observers: Charles Berry, Earline Berry, Mildred Gaston, Kay Norris, Sarah Thompson, Melissa and Roy Turrentine (compilers), Dean Walker, and Jeri Walker.

2001 SPRING FIELD DAYS

Ron Hoff, State Compiler 282 Hackworth Ln. Clinton, TN 37716

This report summarizes the traditional Spring Field Days that were conducted on a date other than 12 May 2001, when the North American Migration Count (NAMC) was conducted, and those conducted on 12 May that cover more than one county (i.e., the Nashville count). Species observed and effort data for these counts are provided in Table 1. Data for all other Tennessee spring and NAMC counts are included in the Tennessee North American Migration Count report.

Table 1. Results of the 2001	Tennessee Spring	Counts
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	Elizabethton	Greeneville	Knox County	Nashville	
Species	29 April	21 April	29 April	12 May	
Common Loon	1	-	-		
Double-crested Cormorant	3	-	8	33	
Great Blue Heron	19	17	132	34	
Great Egret	2	9	7=	18	
Green Heron	8	8	6	14	
Black-crowned Night-Heron	: ** i	1	33	27	
Yellow-crowned Night-Heron	1	5			
Black Vulture	35	36	30	65	
Turkey Vulture	114	82	29	62	
Canada Goose	288	49	170	98	
Wood Duck	39	22	8	12	
Gadwall	2	2		1	
Mallard	140	21	37	100	
Blue-winged Teal	2	50	-	3	
Green-winged Teal		4	2	-	
Greater Scaup	1	5	152	-	
Bufflehead	10	¥	•		
Hooded Merganser	1	2	-	2	
Osprey	7	2	8	<u></u>	
Northern Harrier	*	-	2	4	
Sharp-shinned Hawk	2	6	3	1	
Cooper's Hawk	6	3	2	4	
Red-shouldered Hawk	-	2	3	6	
Broad-winged Hawk	5	6	1	5	
Red-tailed Hawk	20	18	16	27	
	27				

Species	Elizabethton 29 April	Greeneville 21 April	Knox County 29 April	Nashville 12 May
American Kestrel	7	9		11
Ruffed Grouse	6	3		-
Wild Turkey	4	47	1	17
Northern Bobwhite	2	26	6	37
Virginia Rail	1	5	3. = 8	=
Sora	-	2	-	1
American Coot	1	1	1	2
Semipalmated Plover		2	2	1
Killdeer	47	26	11	13
Greater Yellowlegs	1	.	0=	=
Lesser Yellowlegs	(T)	3	-	3
Solitary Sandpiper	26	11	4	2
Spotted Sandpiper	20	2	1	1
Least Sandpiper	-	22	-	7
Pectoral Sandpiper	*	11	: €	-
Common Snipe	19	6		-
Ring-billed Gull	63	5	2	7.
Forster's Tern	(7)		1	15
Rock Dove	81	33	121	45
Mourning Dove	297	213	230	108
Black-billed Cuckoo	(*)	-	1	-
Yellow-billed Cuckoo		+	8	17
Barn Owl	1	-	: e.	=
Eastern Screech Owl	7	1	3	1
Great Horned Owl	2	2	1	3
Barred Owl	2	=	1	8
Northern Saw-whet Owl	2	-	-	€
Common Nighthawk	2	-	-	×
Chuck-will's-widow	11		1	6
Whip-poor-will	15	11	-	13
Chimney Swift	116	57	196	197
Ruby-throated Hummingbird	38	11	4	17
Belted Kingfisher	6	11	7	13
Red-headed Woodpecker	3	2	2-	4
Red-bellied Woodpecker	52	45	64	60
Downy Woodpecker	25	26	16	40
Hairy Woodpecker	6	6	1	8
Northern Flicker	28	25	12	10

Species E	lizabethton 29 April	Greeneville 21 April	Knox County 29 April	Nashville 12 May
openes .	2577	22.14	25.19.11	22.17.119
Pileated Woodpecker	37	25	11	17
Olive-sided Flycatcher		1	5	75.7
Eastern Wood-Pewee	3	=	1	50
Yellow-bellied Flycatcher	27.0		Φ.	1
Acadian Flycatcher	3	≘	8	27
Willow Flycatcher	S4.	-	2	3
Least Flycatcher	7		-	-
Empidonax sp.		×	1	(#) (
Eastern Phoebe	72	21	10	25
Great Crested Flycatcher	12	12	12	51
Eastern Kingbird	34	22	26	67
Loggerhead Shrike	3	3	=	2
White-eyed Vireo	21	17	29	42
Yellow-throated Vireo	6	3	7	7
Blue-headed Vireo	50	24	3	1.70
Warbling Vireo	6	1	1	8
Philadelphia Vireo	92	ū.	2	3
Red-eyed Vireo	194	32	89	62
Blue Jay	148	116	137	129
American Crow	559	221	133	121
Common Raven	24	1	-	
Horned Lark	1	=	-	-50
Purple Martin	131	94	46	29
Tree Swallow	105	54	13	8
Northern Rough-winged Swallow	154	48	27	32
Bank Swallow	2	2	-	(*)
Cliff Swallow	84	89	21	140
Barn Swallow	214	124	78	56
Carolina Chickadee	141	81	119	135
Tufted Titmouse	106	84	129	107
Red-breasted Nuthatch	8	2	-	
White-breasted Nuthatch	15	8	7	16
Brown Creeper	2	-		
Carolina Wren	115	93	91	78
House Wren	48	17	12	2
Winter Wren	3	l a	2) <u>2</u> 3
Marsh Wren	170x	1	¥	
Golden-crowned Kinglet	12	1	2	340

Species	Elizabethton 29 April	Greeneville 21 April	Knox County 29 April	Nashville 12 May
Ruby-crowned Kinglet	4	16	8	7.
Blue-gray Gnatcatcher	63	43	37	131
Eastern Bluebird	173	179	40	119
Veery	-	2	72	1
Gray-cheeked Thrush	-	-	25	2
Swainson's Thrush	3	-	1	63
Hermit Thrush		-	1	-
Wood Thrush	63	20	39	42
American Robin	626	280	180	207
Gray Catbird	14	5	6	9
Northern Mockingbird	180	116	86	64
Brown Thrasher	36	32	33	32
European Starling	915	774	354	227
Cedar Waxwing	167	131	189	168
Blue-winged Warbler	•	-	2	6
Golden-winged Warbler	3	1	121	_
Brewster's Warbler	2	Σ Σ	-	_
Tennessee Warbler	3	_	1	34
Nashville Warbler	1	_	2	3
Northern Parula	31	10		11
Yellow Warbler	34	4	7	16
Chestnut-sided Warbler	34	1	6	4
Magnolia Warbler	-	•	2	15
Cape May Warbler	549	2	2	3
Black-throated Blue Warbler	84	3	2	-
Yellow-rumped Warbler	86	56	92	4
Black-throated Green Warbler	132	54	23	15
Blackburnian Warbler	3	-	5	-
Yellow-throated Warbler	16	1	7	8
Pine Warbler	4	6	3	5
Prairie Warbler	724	13	12	14
Palm Warbler	7	1	14	3
Bay-breasted Warbler	1	-		5
Blackpoll Warbler	1		4	16
Cerulean Warbler	2	्र हु	7	1
Black-and-white Warbler	75	27	16	5
American Redstart	5	1	10	3
Prothonotary Warbler	1	6	5	23

100000	Elizabethton		Knox County	Nashville	
Species	29 April	21 April	29 April	12 May	
Worm-eating Warbler	35	13	10	3	
Swainson's Warbler	3	-	5	7.	
Ovenbird	104	45	13	2	
Northern Waterthrush	2	-	1	1	
Louisiana Waterthrush	34	13	1	5	
Kentucky Warbler	13		2	26	
Common Yellowthroat	25	34	60	111	
Hooded Warbler	132	35	17	13	
Wilson's Warbler	1	-	<u> </u>	5	
Canada Warbler	11	-	2	7	
Yellow-breasted Chat	5	*	28	57	
Summer Tanager	2	1	1	75	
Scarlet Tanager	26	18	56	25	
Eastern Towhee	101	54	94	63	
Chipping Sparrow	88	62	33	23	
Field Sparrow	33	72	31	119	
Vesper Sparrow	3	-	2	- 2	
Savannah Sparrow	27	7	3	2	
Grasshopper Sparrow	5	7	2	-	
Song Sparrow	335	92	90	-5	
Lincoln's Sparrow	(-)	. ™ .	1	1	
Swamp Sparrow	25	3	6	1	
White-throated Sparrow	59	94	163	2	
White-crowned Sparrow	51	19	1	2	
Dark-eyed Junco	59	14	-	-	
Northern Cardinal	250	156	245	319	
Rose-breasted Grosbeak	23	0	14	4	
Blue Grosbeak	5	3	. 5	7	
Indigo Bunting	54	7	84	366	
Bobolink	4	2	13	-	
Red-winged Blackbird	393	313	174	202	
Eastern Meadowlark	157	168	46	83	
Common Grackle	408	293	208	234	
Brown-headed Cowbird	82	56	66	167	
Orchard Oriole	13	4	15	29	
Baltimore Oriole	5	2	10	1	
Purple Finch	1	9	= = = = = = = = = = = = = = = = = = =	9	
House Finch	101	32	48	52	

c	Elizabethton	Greeneville	Knox County	Nashville	
Species	29 April	21 April	29 April	12 May	
Red Crossbill	-	2		(#)	
Pine Siskin	19	(-2 -1			
American Goldfinch	352	159	126	179	
House Sparrow	115	16	19	67	
Total individuals	9845	5697	5061	5891	
Total species	152	124	126	134	
EFFORT:					
Observers	33	16	24	32	
Feeder observers	}	178	-	(T)	
Parties	9	9	15	2	
Party hours	100	-	64.5	70.5	
Feeder hours		14.5	12	-	
Hours by car	*	39	12.5	15	
Miles by car	*.	424	125	259	
Hours by foot	-	19	35.25	54.5	
Miles by foot		19	22.75	34.5	
Hours owling	5.75	•	0.25	1	
Miles owling	2	2	2	10	
Temperature range (F)	39-77	50-80	50-82	64-76	
Time of count	0430-2100	1=2	0700-2200	0300-1900	

Elizabethton: 29 April 2001. 152 species; 9,845 individuals. The weather started out clear and chilly, but warmed up later with gusty winds of 5-15 mph out of the east. The area covered was Carter County and parts of adjacent Johnson, Sullivan, Unicoi, and Washington Counties. This was the 58th consecutive spring count conducted by the Lee & Lois Herndon Chapter of the Tennessee Ornithological Society. The average number of species over the previous 25 years was 142.8 species per year. The all-time high count was 157 species in 1992. Highlights from this year's count were 6 Ruffed Grouse, a Virginia Rail, 2 Northern Saw-whet Owls, 2 Brown Creepers, 24 Common Ravens, 2 Brewster's Warblers, 3 Swainson's Warblers, a Wilson's Warbler, 4 Bobolinks, and 19 Pine Siskins. Observers: Fred Alsop, Rob Biller, Wallace Coffey, Joy and Mark Crass, Carol and Rack Cross, Tess Cumbie, Gilbert Derouen, Hal and Martha Dillenbeck, Patrick Dougherty, Glen Eller, John Hackett, Don Holt, Brad Jones, Barney and Pat Keffer, Rick Knight (compiler: 804 N. Hills Dr., Johnson City, TN 37604), Howard Langridge, Chad Leedy, Larry McDaniel, Perry and Stephanie McDorman, Joe McGuiness, Charles Moore, Dwight Norris, John Shumate, Bryan Stephens, Kim Stroud, Allen Trently, Mary Vinson, and Gary Wallace.

Greeneville: 21 April 2001. 124 species; 5,697 individuals. The weather was mostly sunny with light and variable winds. All water was open and the wild food crop was good. Interesting finds included 50 Blue-winged Teal, 3 Ruffed Grouse, an Olive-sided Flycatcher, 2 Red-breasted Nuthatches, a Marsh Wren, and 2 Red Crossbills. Observers: Mary Borden, Carole Boviall, Tom Boviall, Ben Britton, Orland Britton, Phine Britton, King Gaut, Margaret Gaut, Jim Holt (compiler: 311 Colonial Circle, Greeneville, TN 37745), Rick Knight, Alice Loftin, Don Miller, Linda Northrop, JoAnne Routledge, Larry Routledge, and Helen Spees.

Knox County: 29 April 2001. 126 species; 5,061 individuals. The weather conditions were partly cloudy, with some light winds out of the SW. In addition to the species found on count day, a Scissor-tailed Flycatcher and eight other species were seen during count week. This was at least the 49th consecutive spring count for Knox County. Some highlights included 2 Northern Harriers, a Black-billed Cuckoo, a late Hermit Thrush, 189 Cedar Waxwings, a Warbling Vireo (a tough species to find in Knox County), a Lincoln's Sparrow, and 13 Bobolinks. Observers: Jean Alexander, Frank Bills, Howard Chitwood, Marcia Davis, Dean Edwards (compiler: 1615 Meadow Chase Lane, Knoxville TN 37931), Reid Gerhardt, Jerry Hadder, Tony Headrick, Amber Hensley, Susan Hoyle, Wes James, David Johnson, Kristine Johnson, Dan Mooney, Laurie Mooney, Marie Oakes, Truett Patterson, Martha Rudolph, Beth Schilling, Boyd Sharp, and David Trently.

Nashville: 12 May 2001. 134 species; 5,891 individuals. The weather was mostly partly cloudy with mild temperatures. The count area is centered in Davidson County, but includes parts of Cheatham, Rutherford, Sumner, Williamson, and Wilson Counties. Highlights were a Sora, 15 Forster's Terns, 3 Willow Flycatchers, a Yellow-bellied Flycatcher, and a Lincoln's Sparrow. Observers: Sue Ansley, David Buchanan, Jean Buchanan, Ed Byrne, Gary Casey, Phillip Casteel, Richard Conners, Jay Desgrosellier, David Dortch, Jerry Drewry, Troy Ettel, Frank Fekel, Tarcila Fox, Ed Gleaves, Mark Hackney, Barbara Harris, Trish McFadden, Dick and Grace Newton, John Noel, Elizabeth O'Conner, Robert Rich, George Rentschler, Adrian Robins, Jan Shaw (compiler: 5019 Timberhill Dr., Nashville, TN 37211), Mike Smith, Joe Stone, Dee Thompson, Sabin Thompson, Rita Venable, Melinda Welton, and Mary Zimmerman.

In Memoriam J. B. OWEN (1915-2001)

CHARLES P. NICHOLSON P.O. Box 402 Norris, TN 37828

On February 4, 2001, J. B. Owen, a longtime TOS member known to thousands in East Tennessee through his columns on birds in Knoxville newspapers, died at the age of 85.

J.B., as he was known to virtually everyone, grew up in the small town of Newbern in rural northwest Tennessee. His interest in birds began in childhood. He met his wife, Frances, in 1940 in Sylva, North Carolina, where he worked as a



typesetter for a small newspaper. J.B. and Frances married in 1941 and eventually had two daughters, Jean and Barbara. Shortly after meeting Frances, he came to Knoxville and began typesetting for *The Knoxville Journal* and later for *The Knoxville News-Sentinel*. He started his typesetting career with a hot-metal Linotype machine, and changed with the technology to photo composition. He retired from typesetting in 1980.

In 1960, J.B. began a second phase of his newspaper career, when he began writing the "For The Birds" column for the *Journal*. The column appeared three times a week. After the *Journal* closed in the 1970s, his column was quickly picked up by the *News-Sentinel*, renamed "Nature Scrapbook," and appeared on Sundays. His column had an unbroken run until J.B. was hospitalized in the fall of 2000. Frances assisted by typing and proofreading all the columns, compiling local bird count results, and by filing previous columns, bird notes, and other research materials.

J.B. joined the Knoxville Chapter of the Tennessee Ornithological Society in 1947, and held several elected club offices including chapter president. He regularly attended both local chapter and state TOS meetings, and authored a few articles in *The Migrant*. Most of these articles were on topics related to him by readers of his columns. J.B. was awarded the Tennessee Ornithological Society Distinguished Service Award in 1990.

It was through his columns that J.B. had the most influence on birdwatchers. In this manner, J.B. probably did more to interest East Tennesseans in birds than any other individual. Readers reported their observations — both commonplace and rare — to J.B. by mail and phone. For many years, J.B. published his address at the end of his column. He received a large volume of mail from his readers, and answered every letter. J.B. later published his phone number instead of his address,

and at some times of the year would get dozens of calls a day. J.B. would often learn within minutes of the first Purple Martin to arrive in the spring or of an Evening Grosbeak at a reader's feeder. He wrote about these reports as well as about his readers' and his own experiences with both common and rare birds. His loyal readers included both hardcore birders and people just interested in nature.

J.B. was quiet and unassuming, and one of the most truly nice persons around. I, and others who knew him well, could always tell from his "Oh, boy!" response when the bird we described to him was something special. He often spoke to garden clubs and other civic groups about birds. He enjoyed answering people's questions about birds, and occasionally appeared as the bird expert-in-residence at garden shows and similar events.

J.B. was a regular participant in Knoxville chapter field trips and bird counts, and Sharp's Ridge was one of his favorite birding locations. As his health declined, he continued to visit Sharp's Ridge, riding in the car driven by Frances with his head often leaning out the window. In earlier years, J.B., Frances, and their daughters made several long birding trips across the U.S. One of their favorites was an automobile trip to Alaska in the early 1980s shortly after his retirement. J.B. and Frances were both avid rock collectors and members of the Knoxville Gem and Mineral Society, and they closely studied the local geology on their trips.

Those of us who knew J.B. well all have our own stories about him, and I'll end with mine. I first became seriously interested in birds while in high school. My parents subscribed to the *News-Sentinel* and not the *Journal*, and at first I was unfamiliar with J.B. and his column. However, at about that time my brother and I started a *Journal* delivery route, and on many Mondays, Wednesdays, and Saturdays I would read his column by streetlight at 5 A.M. before loading the papers onto my bicycle and starting the route. I met J.B. shortly after I started attending Knoxville TOS chapter meetings, and on many Saturday or Sunday evenings my birding pals and I would phone J.B. to discuss our finds with him. No matter how mundane our finds were (at least in retrospect), J.B. always seemed interested in them and we would occasionally get the thrill of seeing our names in his column.

I thank Jim Campbell and Frances Owen for helping with this article.

ad - adult

THE FALL SEASON

RICHARD L. KNIGHT, editor



1 AUGUST-30 NOVEMBER 2000

Dry conditions prevailed across much of Tennessee this autumn, with some relief arriving in November. Late season temperatures were variable, particularly in the eastern part of the state. Most reports indicated a good season for birders, with numerous unusual species mixed in with the regular migrants.

Eared Grebes returned to South Holston Lake in northeast Tennessee, amazingly for the seventh consecutive fall. Others of this species appeared in the two western regions. Wood Storks invaded some areas near the Mississippi River and a lone stork was found well to the east. A Whooping Crane from the experimental population in Florida surprised the experts by migrating on its own to Michigan this past spring, then stopping over in Greene County on its return flight to the Sunshine State this fall. Shorebirds were notable in the Western Coastal Plain and Ridge & Valley regions. Henslow's and, most obligingly, LeConte's sparrows were found at several sites in the two eastern regions, where both are rare. The highlights from four banding stations are mentioned in the report from the Mountain region. An eclectic mix of rarities were reported, including Pacific and Yellow-billed Loons, Anhinga (two regions), Ross's Goose and Long-tailed Duck (two regions each), Swallow-tailed Kite, Northern Goshawk, Long-tailed Jaeger, Calliope Humming-bird, Common Ground-Dove, multiple Nelson's Sharp-tailed Sparrows, and Snow Bunting.

Standard Abbreviations

L - Lake

act beauti	
b - banded	Irs - latest reported sighting
Co - County	m - male
Cr - Creek	max - maximum count
e, n, s, w - compass directions	m.ob many observers
ers - earliest reported sighting	Mtn - Mountain
et al and others	Pt - Point
f - female	R - River
fide - reported by	Rd - Road
Hwy - Highway	SP - State Park
im - immature	WMA - Wildlife Management Area
Is - Island	yg - young

WESTERN COASTAL PLAIN REGION — The severe drought of the summer continued for the first three months of the fall season, with August being unusually hot and dry. Relief came in November with several rain showers and more normal temperatures. Birding was by no means a washout, despite the weather. No fewer than 30 species of shorebirds were found in the region, including a Red Phalarope seen by many. A Long-tailed Jaeger made a brief showing at Island 13, where first found in the state 16 years ago. The female Scissor-tailed Flycatcher, after nesting in Lake County, lingered there into August. Wood Storks staged a late summer invasion in Shelby and Dyer counties, while American White Pelicans overwhelmed observers with a major invasion-hundreds of birds in four counties. By November, the Big Sandy Unit of the Tennessee NWR (including Pace Point) and nearby Britton Ford had developed into a birding mecca, offering three species of loons, Ross's Goose, two Golden Eagles, both black-backed gulls, and a LeConte's Sparrow bonus (as many as seven).

Loon-Stork: Red-throated Loon: 4-19 Nov (1) Big Sandy (JRW et al.). Pacific Loon: 4-19 Nov (1, with 2 on 5 Nov) Big Sandy (JRW, MCT et al.). Common Loon: 12 Nov (300+) Port Rd. Overlook (JRW et al.), max. Pied-billed Grebe: 25 Aug (1) Is. 13 (WGC, KL), ers. Horned Grebe: 26 Nov (500+) Pace Pt. (MCT, JRW), max. Eared Grebe: 23 Nov (1) Robco L (JRW); 25 Nov (1) Port Rd. Overlook (JRW). American White Pelican: 12 Aug (150) North L. (CHB, WRP, VBR, MGW); 12 Sep (51) Is. 13 (KL, NaM); 26 Oct (800) Reelfoot L (WGC), Lake Co max; 18 Sep (400) Heloise (WGC); 5 Nov (675) Everett L (WGC), Dyer Co max; 30 Sep-28 Nov (up to 400 on 23 Nov) Shelby Co, including Robco L., Mud Is., & EARTH Complex (JRW, Marty Haraway); 3 Nov (357) Samburg (WGC), Obion Co max. Double-crested Cormorant: 10 Oct (5000+) Reelfoot L (KL), max. Anhinga: 5 Sep (1 m) White L. Refuge (WGC, KL). American Bittern: 22 Aug (1) White L. Refuge (WGC, KL). Great Egret: 19 Aug (305) EARTH Complex (CHB, RDH, DMy, VBR, MGW), max; 28 Nov (3) Dyer Co (WGC), Irs. Snowy Egret: 2 Sep (50) EARTH Complex (MTOS), max; 3 Oct (5) Dyer Co (WGC), Irs. Tricolored Heron: 8-9 Aug (1 im) Black Bayou (NaM, KL); 19 Aug/2 Sep (1) EARTH Complex (JRW et al.). Cattle Egret: 2 Sep (40) EARTH Complex (MTOS), max; 4 Nov (1) Obion Co (WGC), Irs. Black-crowned Night-Heron: 22 Aug-8 Sep (1-3) White L. Refuge (WGC, KL). Wood Stork: 6 Aug (78)/2 Sep (42) EARTH Complex (JRW/MTOS); 12 Aug (27) North L. (CHB, WRP, VBR, MGW); 22/31 Aug (30/82) White L. Refuge (WGC, KL); 10 Sep (3) Heloise (WGC).

Goose-Crane: Greater White-fronted Goose: 3 Nov (20) Shelby Farms (WRP); 12-25 Nov (1-3) Britton Ford (JRW, MCT et al.). Snow Goose: 25 Sep (2) Cates, Lake Co (KL, NaM). Ross's Goose: 26 Nov (1) Britton Ford (MCT, JRW). Blue-winged Teal: 7 Aug (7) Dyer Co (WGC), ers; 7 Nov (2) Shelby Co (DDP). Northern Shoveler: 13 Aug (3) Black Bayou (WGC) & (2) Shelby Farms (CHB, VBR), ers. Northern Pintail: 30 Aug (1) Is. 13 (WGC, KL), ers. Green-winged Teal: 13 Aug (2) Black Bayou (WGC), ers. Greater Scaup: 30 Oct/18 Nov (1 f) Reelfoot L; 8-9 Nov (2 f) Heloise; 13 Nov (8) Lake Co (WGC). Red-breasted Merganser: 25 Nov (100) Pace Pt. (MAG), max. Ruddy Duck: 5 Aug (2) Robco L (JRW), ers. Osprey: 2-27 Sep (8 reports) Cos. bordering Miss. R.; 5 Nov (1) Millington (MTOS), Irs. Mississippi Kite: 25 Aug (30)

Memphis (MaH). Bald Eagle: 7 Aug-5 Nov (12 reports of 1-7 birds) Lake & Dyer Cos (WGC, KL, NaM); 11 Oct (1) Shelby Forest (MTOS). Northern Harrier: 22 Aug (1 im) Black Bayou (WGC, KL), ers; 23 Aug (1 im) White L. Refuge (KL). "Harlan's" Red-tailed Hawk: 22 Oct (1) EARTH Complex (JRW); 24 Nov (1) Black Bayou (WGC, [RW]. Rough-legged Hawk: 21/24 Nov (1 dark morph) Black Bayou (JRW, WGC, Keith McKnight). Golden Eagle: 4-26 Nov (1-2) Big Sandy (JRW, MCT et al.). Merlin: 20 Aug-5 Nov (8 reports) Lake & Dyer Coc (WGC, KL); 19 Nov (1) Shelby Co (VH); 25 Nov (1) Big Sandy (MAG). Peregrine Falcon: 22/31 Aug (1) Is. 13 (WGC, KL); 13 Sep (1 ad) Pace Pt. (MCT); 13 Sep/8 Oct (1 im/1 ad) Heloise (WGC); 2 Oct (1 ad, 1 im) White L. Refuge (WGC); 15 Oct (1) Memphis (MGW); 26 Nov (1) Paris Landing, Henry Co (MCT, JRW). Virginia Rail: 18 Sep (2) Hwy 78 rice field, Lake Co (MAG, MCT, DMa, KL, WGC, NaM); 23 Oct (2) Shelby Farms (JRW). Sora: 18 Sep (50+) Hwy 78 rice field, Lake Co (MAG, MCT, DMa, KL, WGC, NaM); 2 Oct (1) Black Bayou (WGC); 11 Oct (1) Heloise (WGC); 18/23 Oct (1/3) Shelby Farms (VBR/ JRW). American Coot: 25 Aug (1) White L. Refuge (WGC, KL), ers. Sandhill Crane: 31 Oct (1) Is. 10 (WGC); 4-5 Nov (1) Lick Cr. WMA, Benton Co (IRW).

Shorebirds: Black-bellied Plover: 6 Aug (1) EARTH Complex (JRW); 27 Aug/4 Sep (1) Tiptonville Bar, Lake Co (JRW, SWM et al.); 13 Sep (1) Pace Pt. (MCT); 25-26 Oct (1) Dyer Co (WGC). American Golden-Plover: 17 Aug/24 Sep (1/6) EARTH Complex (CHB, VBR); 25-26 Aug/5 Sep (1/2) Is. 13 (WGC, KL); 8 Sep (4) Everett L. (WGC, KL); 14 Sep (2) White L. Refuge (WGC). Piping Plover: 7-8 Aug (1) Is. 13 (WGC, KL); 4 Sep (1) Everett L (JRW et al.). Willet: 26 Aug (1) White L Refuge (MAG). Upland Sandpiper: 8/12-13 Aug (3/1) White L Refuge (WGC, KL); 2/3 Sep (1/9) EARTH Complex (JRW, MAG, MCT). Whimbrel: 6 Aug (1) Dacus Bar, Shelby Co (JRW). Marbled Godwit: 7 Aug (2) Is. 13 (WGC, KL). Ruddy Turnstone: 5 Aug/2-3 Sep (1/2) EARTH Complex (JRW/MTOS, JRW, MAG, MCT). Sanderling: 8-31 Aug (1-3) Is. 13 (WGC, KL). Semipalmated Sandpiper: 17 Aug (564) EARTH Complex (CHB, VBR), max. Western Sandpiper: 14 Aug (1) Shelby Farms (VBR); 10 Sep (9) EARTH Complex (CHB, WRP, VBR, MGW), max; 28 Nov (2) Heloise (WGC), Irs. Least Sandpiper: 9 Aug (2232) EARTH Complex (CHB, VBR, MGW), max; 2 Oct (585) Heloise (WGC). White-rumped Sandpiper: 5 Aug/10 Sep/ 7 Oct (1-2) EARTH Complex (JRW/CHB, WRP, VBR, MGW); 17 Aug (1) Is. 13 (WGC, KL); 8 Sep- 6 Oct (1) Heloise (WGC). Baird's Sandpiper: 5 Aug/2 Sep (1-2) EARTH Complex (JRW, MAG, MCT); 22 Sep (1) Is. 13 (WGC, KL); 17-18 Oct (1-2) Shelby Farms (WRP, VBR). Pectoral Sandpiper: 9 Aug (1477) EARTH Complex (CHB, VBR, MGW), max. Dunlin: 2/24 Sep (1-2) EARTH Complex (MTOS); 27-28 Nov (30-23) Heloise (WGC). Stilt Sandpiper: 7 Aug (17/4) Dyer Co/Is. 13 (WGC, KL); 10 Sep (27) Heloise (WGC), max; 24 Sep (13) EARTH Complex (CHB, VBR), local max; 21 Oct (1) Is. 10 (WGC), Irs. Buff-breasted Sandpiper: 7 Aug/30 Aug-14 Sep (2/max 56 on 10 Sep) Heloise (WGC, KL); 25 Aug-5 Sep (1-20) Is. 13 (WGC, KL); 30 Aug (17) Tiptonville, Lake Co (WGC, KL); 2-3 Sep (4-9) EARTH Complex (JRW, MAG, MCT et al.). Short-billed Dowitcher: 30 Aug (1) Heloise (WGC, KL); 30 Oct (2) Dyer Co (WGC). Long-billed Dowitcher: 30 Aug (2) Is. 13 (WGC, KL); 6 Oct (18) EARTH Complex (JRW); 16 Oct (1) Ed Davis Fish Farm, Gibson Co (MAG). Common Snipe: 30 Aug (1) Is. 13 (WGC, KL), ers. Wilson's Phalarope: 24 Sep (1) EARTH Complex (CHB, VBR). Red-necked Phalarope: 5 Aug (1) EARTH Complex (JRW). Red Phalarope: 19-22 Aug (1) EARTH Complex (JRW, MCT, MGW, m.ob).

Jaeger-Sapsucker: LONG-TAILED JAEGER: 27 Aug (1) Is. 13 (JRW, SWM). Franklin's Gull: 28 Oct (11) Reelfoot L (JRW); 25 Nov (1) Big Sandy (MAG, JRW). Bonaparte's Gull: 11 Oct (1) Reelfoot L (WGC), ers; 26 Nov (3500+) Big Sandy (MCT, JRW), max. Ring-billed Gull: 7 Aug (6) Is. 13 (WGC, KL), ers. Lesser Black-backed Gull: 12/18 Nov (1 ad) Port Rd. Overlook/Big Sandy (JRW, Larry Peavler, Ken Allen, MAG, MCT, DMa, CAS). Great Black-backed Gull: 25 Nov (1 ad) Pace Pt. (MAG). Caspian Tern: 12-30 Aug (1-7) Tiptonville, Lake Co (WGC, KL, JRW, SWM); 14 Sep (2) Miss. R. Bridge, Dyer Co (WGC). Forster's Tern: 23 Sep (6) Is. 10 (WGC, KL, NaM); 28 Oct (46) Reelfoot L (JRW), max; 4 Nov (2) Britton Ford (JRW). Black Tern: 7-8 Aug (2-5) Is. 13 (WGC, KL); 8 Aug (1) Heloise (WGC). Least Tern: 12 Aug (6) North L. (CHB, WRP, VBR, MGW). Eurasian Collared-Dove: 5 Aug (2) N. Treatment Plant, Memphis (MaH, Margaret Jefferson, Ed Thomas); 10 Sep (1) EARTH Complex (CHB, WRP, VBR, MGW); 5/26 Nov (4-5) Millington (MTOS/DDP, CHB, WRP). Common Ground-Dove: 24/29 Nov (1) Trezevant, Carroll Co (MCT/ Thurston Lee), first for Co. Long-eared Owl: 26 Nov (5) Hop-In WMA, Obion Co (David Pitts). Black-billed Cuckoo: 16/19 Sep (1) Shelby Farms (VBR, CHB); 27 Sep (2) Lake Co (KL, NaM). Common Nighthawk: 19 Aug (142) Memphis (MaH), max; 22 Nov (2) Memphis (JRW), Irs. Chuck-will's-widow: 9 Sep (1) Shelby Forest (DDP, Gerry Papachristou). Ruby-throated Hummingbird: 24 Oct (1 m) Millington (VH), Irs. Rufous Hummingbird: 18 Nov (1 m) Paris, Henry Co (Neville & Judith Barrows, b- CAS). Selasphorus sp.: 10 Oct (1) Overton Park, Memphis (VH); late Oct thru period (1) e. Memphis (Laura Malinick, VBR, CHB); mid Nov into Dec (1) e. Memphis (Ronnie & Peggy Haynes), site of one last winter. Yellow-bellied Sapsucker: 16 Sep (1) Shelby Forest (DDP), ers.

Flycatcher-Pipit: Olive-sided Flycatcher: 25 Aug (3) Is. 13 & vicinity (WGC, KL); 26 Aug (1) Tennemo Levee, Dyer Co (JRW, SWM); 2 Sep (1) Memphis (MGW, James Waldron); 16 Sep (1) Shelby Forest (DDP). Yellow-bellied Flycatcher: 26 Aug (1) Dyer Co (JRW, SWM); 22 Sep (1) Walnut Log, Obion Co (MCT). Least Flycatcher: 9/13 Sep (2-1) Shelby Forest (DDP); 22 Sep (1) Walnut Log, Obion Co (MCT). Great Crested Flycatcher: 4 Oct (1) Shelby Forest (DDP), Irs. Scissor-tailed Flycatcher: 6 Aug (1) Lake Co (KL). White-eyed Vireo: 29 Oct (1) Lake Co (KL, Betty Leggett, NaM), Irs. Blue-headed Vireo: 6 Nov (1) Germantown (WRP), Irs. Warbling Vireo: 18 Sep (1) Germantown (WRP); 4 Oct (1) Shelby Forest (DDP). Philadelphia Vireo: 16/20 Sep & 4/11 Oct (1-3) Shelby Forest (MTOS); 22 Sep (1) Obion Co (MCT); 26-27 Sep (1) Shelby Farms (MTOS). Red-breasted Nuthatch: 26 Sep (1) McKenzie, Carroll Co (Donna Ward). House Wren: 16 Sep-18 Oct (6 sightings) Shelby Co (MTOS). Wood Thrush: 25 Oct (1) Hatchie NWR, Haywood Co (CHB, VBR, Sue Ferguson), Irs. American Pipit: 16 Oct (18) Britton Ford (MAG), ers.

Warbler-Siskin: Blue-winged Warbler: 16 Oct (1) Millington (VH), Irs. Goldenwinged Warbler: 4 Oct (2) Shelby Forest (MTOS), Irs. "Brewster's" Warbler: 23 Sep (1) Eagle L. WMA (CAS). "Lawrence's" Warbler: 16 Sep (1) Shelby Forest (DDP).

Orange-crowned Warbler: 16 Sep/17 Oct (1) Shelby Forest (DDP/WRP); 27 Sep (1) Shelby Farms (MTOS); 11 Oct (1) Eagle L. WMA (JRW); 25 Oct (1) Carroll Co (MCT); 5 Nov (1) Tipton Co (DDP). Chestnut-sided Warbler: 2 Aug (1) Humboldt, Gibson Co (MAG), ers. Magnolia Warbler: 2 Aug (1) Humboldt, Gibson Co (MAG), ers. Mourning Warbler: 23 Sep (1) Eagle L WMA (Michael Bierly, MLM, CAS). Common Yellowthroat: 5 Nov (2) Millington (MTOS), lrs. Wilson's Warbler: 16 Sep (1) Shelby Forest (DDP); 28 Sep (1) Shelby Farms (WRP). American Tree Sparrow: 28 Nov (3) Is. 13 (WGC). Grasshopper Sparrow: 29 Oct (1) Black Bayou (JRW), Irs. LeConte's Sparrow: 25 Oct/18 Nov (1) Big Sandy (MCT, m.ob.); 29 Oct (1) Black Bayou (JRW); 12-19 Nov (1-7) Britton Ford (JRW, m.ob.). Lincoln's Sparrow: 10 Oct/3 Nov (1) Shelby Farms (VBR/WRP); 18 Oct (1) Herb Parson's L., Fayette Co (CHB, Sue Ferguson, Barbara Wilson); 1 Nov (1) Wolf R. WMA, Fayette Co (MGW, Susan McWhirter); 2 Nov (1) Germantown (WRP); 11 Nov (1) Gibson Co (MAG); 12 Nov (1) Big Sandy (JRW). Swamp Sparrow: 28 Sep (1) Shelby Farms (WRP), ers. Rose-breasted Grosbeak: 3 Nov (1) Tipton Co (DDP), Irs. Indigo Bunting: 5 Nov (1) Millington (MTOS), Irs. Orchard Oriole: 2 Sep (1) EARTH Complex (MTOS); 13/16 Sep (1) Shelby Forest (DDP), Irs. Pine Siskin: 25 Oct (8) Big Sandy (MCT); 12 Nov (30) Henry Co (JRW et al.); 17 Nov (1) Millington (VH).

Locations: Big Sandy-unit of Tenn. NWR, Henry Co; Black Bayou-in Lake Co; Britton Ford-in Henry Co; Eagle L. WMA-in Shelby Co; EARTH Complex-in Shelby Co; Everett L-in Dyer Co; Germantown-in Shelby Co; Heloise-in Dyer Co; Is. 10 & Is. 13-in Lake Co; Millington-in Shelby Co; North L-in Shelby Co; Pace Pt.-in Henry Co; Port Rd. Overlook-in Henry Co; Reelfoot L-in Lake & Obion Co; Robco L-in Shelby Co; Shelby Farms & Forest-in Shelby Co; White L. Refuge-in Dyer Co.

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HIGHLAND RIM AND BASIN REGION — As usual, the fall weather was a mixed bag. In the Nashville area, temperatures in August and September were close to normal. However, October was 5 degrees warmer and November was 5 degrees cooler than the respective historic norms. For the first three months of the period rainfall was over 5 inches below normal. October, traditionally the driest month of the year, had only 0.26 inch. Attempting to make up the deficit, November had more than double its average, but over 70% of that total fell on the 8th and 9th.

Fall migration in our region included several noteworthy sightings, such as Anhinga in Rutherford County on the Nashville Fall Count, Long-tailed Duck in Putnam County, and both of the Golden-winged x Blue-winged warbler hybrids ("Brewster's" & "Lawrence's") at Radnor Lake in Nashville. In August, a pair of Scissor-tailed Flycatchers successfully fledged four young in Franklin County.

Grebe-Sapsucker: Pied-billed Grebe: 4 Aug (pair feeding 1 yg) Old Hickory L (Hazel Cassel, Susan Ford). Eared Grebe: 7/22 Nov (1) Center Hill L., DeKalb Co (SJS). Anhinga: 30 Sep (1) Percy Priest L., Rutherford Co (Jay Degrosellier). Northern Shoveler: 13 Sep (1) Radnor L (GBC), ers. Long-tailed Duck: 18 Nov-2 Dec (1 f.

plus 1 m on 24 Nov) Cane Cr. Park, Putnam Co (SJS, m.ob.), first Co record. Merlin: 12 Dec (1) Davidson Co (CAS). Peregrine Falcon: 13 Sep (1) Radnor L (GBC); 2 Nov (1) Nashville (MAZ). Sora: 21 Sep (1) Shelby Park (PDC). Sandhill Crane: 22 Nov (1275) Pickett Co (Howard Groce), max. Semipalmated Plover: 11 Aug (2) Gallatin Steam Plant (TJW). Caspian Tern: 4 Aug (8) Old Hickory L (Hazel Cassel, Susan Ford). Black Tern: 16 Sep (1) Cheatham Co (Jay Degrosellier). Whip-poor-will: 30 Sep (1) Cheatham Co (Joe Stone). Rufous Hummingbird: 15 Nov (1 ad, f) Donelson, Davidson Co (b- CAS); 17 Nov (1 im, f) Murfreesboro, Rutherford Co (b- CAS). Yellow-bellied Sapsucker: 18 Sep (1) Pennington Bend (MLM), ers.

Flycatcher-Thrush: Olive-sided Flycatcher: 13 Aug (1) Shelby Park (PDC); 23 Sep (1) Shelby Park (NTOS). Yellow-bellied Flycatcher: 13 Sep (1) Radnor L (NTOS); 16 Sep (2) Shelby Park (MAZ); 12 Oct (1 b) Lewis Co (George Mayfield); 17 Oct (1) Nashville (Jan Shaw), new late date for Nashville area. Least Flycatcher: 12 Aug (2) Shelby Park (PDC, MAZ). Empidonax sp.: 7 Nov (1) Pennington Bend (MLM), quite late. Scissor-tailed Flycatcher: 6-7 Aug (2 ad, 4 yg fledged) Franklin Co (John Bruner, Jerry Ingles). Warbling Vireo: 8 Oct (1) Shelby Park (PDC), Irs. Philadelphia Vireo: 11 Sep (2) Shelby Bottoms (Michael Smith). Brown Creeper: 19 Sep (1) Pennington Bend (MLM), ers. Winter Wren: 14 Sep (1) Pennington Bend (MLM), ers. Rubycrowned Kinglet: 7 Sep (1) Radnor L (John Froschauer), ers. Veery: 7 Sep (1) Radnor L (FCF). Swainson's Thrush: 1 Sep (1) Radnor L (FCF), ers.

Warbler-Finch: Blue-winged Warbler: 11 Aug (1) Radnor L (TJW). Golden-winged Warbler: 6 Sep (1) Radnor L (FCF). "Brewster's" Warbler: 29 Sep (1) Radnor L (John Froschauer). "Lawrence's" Warbler: 8 Sep (1) Radnor L (Elizabeth O'Connor). Tennessee Warbler: 3 Aug (1) Pennington Bend (MLM), ers. Orange-crowned Warbler: 7 Sep (1) Shelby Bottoms (GBC), ers. Nashville Warbler: 16 Oct (1) Nashville (Michael Bierly), Irs. Chestnut-sided Warbler: 24 Sep (20+) Radnor L (David & Carrie Dortch), max. Magnolia Warbler: 27 Sep (40+) Radnor L (NTOS), max. Blackthroated Blue Warbler: 6 Sep (1 f) Pennington Bend (MLM); 22 Sep (1 b) Lewis Co (George Mayfield); 4 Oct (1 f) Radnor L (PDC, FCF). Yellow-rumped Warbler: 14 Sep (1) Pennington Bend (MLM), ers. Black-throated Green Warbler: 27 Oct (3) Shelby Bottoms (FCF, GBC), Irs. Blackburnian Warbler: 6 Sep (2) Radnor L (FCF, PDC), ers; 18 Oct (1) Pennington Bend (MLM), Irs. Prairie Warbler: 5 Aug (1) Shelby Bottoms (MAZ); 18 Nov (1) Cane Cr. Park, Putnam Co (SJS), quite late. Palm Warbler: 19 Nov (2) Shelby Bottoms (PDC, Richard Connors). Bay-breasted Warbler: 20 Sep (1) Radnor L (NTOS). Worm-eating Warbler: 11 Aug (1) Radnor L (TJW). Mourning Warbler: 11 Aug (1) Radnor L (TJW), earliest fall record for state; 21-26 Sep (1) Nashville (Michael Bierly); 23 Sep (1) Pennington Bend (MLM). Wilson's Warbler: 7 Sep (6) Shelby Park (PDC, GBC), max. Canada Warbler: 15 Aug (1) Pennington Bend (MLM). Baltimore Oriole: 7 Sep (15) Radnor L (FCF), max. LeConte's Sparrow: 27 Oct (1) Shelby Bottoms (PDC, GBC). Henslow's Sparrow: 30 Oct (1) Williamsport Ponds, Maury Co (Jim Hiett). Lincoln's Sparrow: 8 Oct (2) Shelby Park (PDC). Purple Finch: 1 Oct (1) Davidson Co (Dee Thompson), ers.

Locations: Gallatin Steam Plant-in Sumner Co; Old Hickory L-in Davidson &

Sumner Cos; Pennington Bend-in Davidson Co; Radnor L-in Davidson Co; Shelby Park /Bottoms-in Davidson Co.

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CUMBERLAND PLATEAU/RIDGE & VALLEY REGION — Temperatures from mid September through early October were considerably cooler than average, whereas the rest of October into November was warmer than normal. Seasonal rainfall totals varied from a half inch above average at Chattanooga to nearly 4 inches deficient in the Tri-cities. The latter area experienced its driest October on record, with just 0.02 inch of precipitation.

Both the variety and number of migrants were regarded as good by most observers. Twenty-six species of shorebirds were reported, with the largest tallies coming from Rankin Bottoms. Several rarities boosted the excitement level among birders. Particularly notable were Yellow-billed Loon, Wood Stork, Ross's Goose, Whooping Crane, Calliope Hummingbird, and Snow Bunting.

Loon-Vulture: Common Loon: 7 Nov (301) Chickamauga L (KAC), max. YEL-LOW-BILLED LOON: 6 Nov (1) Chickamauga L (LAW, KAC, John Henderson, [aC), pending acceptance of TBRC. Pied-billed Grebe: 9 Aug (2) Campbell Co (NeM), reportedly there all summer (Tim Pruitt). Horned Grebe: 6 Nov (201) Chickamauga L (KAC, LAW et al.), max. Double-crested Cormorant: 19 Aug (56) Rankin Bottoms (RLK, LCM), max. Least Bittern: 1 Oct (1) Amnicola Marsh, Hamilton Co (KAC et al.). Great Egret: 25 Aug (220) Rankin Bottoms (RLK, ABS), max there; 10 Sep (10) Greene Co (DHM, ACL); 10 Oct (75) Sugar Cr., Meigs Co (DJT); 1-2 scattered elsewhere. Snowy Egret: 17-19 Aug (1) Rankin Bottoms (RLK et al.). Little Blue Heron: 10 Aug (1 im) Douglas L, Jefferson Co (LP); 10 Sep (1 im) Greene Co (DHM, ACL). Cattle Egret: 5-25 Aug (10-12) Rankin Bottoms (KDE, RLK), max. Black-crowned Night-Heron: 13 Sep (100) Rankin Bottoms (KDE, ABS), max; 24 Sep (8) Austin Springs (RLK). White Ibis: 20 Aug (1 im) Austin Springs (LCM). WOOD STORK: 5 Sep (1 im) w. Greene Co (Steve Satterfield fide ABS/DHM, ACL, Linda Northrop), first Co record. Black Vulture: 23 Aug (78) Jefferson Co (Howard Chitwood).

Goose-Falcon: Snow Goose: 25 Oct-28 Nov (1-6) Hiwassee Refuge, Meigs Co (Wally Akins, KAC, Dennis Harris); 6 Nov (5) Chickamauga L (LAW); 21-22 Nov (1) Steele Cr. Park, Sullivan Co (Kevin Hamed); 27 Nov (16) Soddy Mtn (WGH). Ross's Goose: 1-8 Nov (1) Pellissippi State campus, Knox Co (David Howell et al., photo by KDE). Gadwall: 27 Aug (1) Rankin Bottoms (RLK, DHM et al.), ers. American Black Duck: 4 Aug (1) Eagle Bend (NeM), ers. Northern Pintail: 30 Sep (1) Brainerd Levee (KAC), ers. Greater Scaup: 29 Nov (1) Eagle Bend (RDH, DMy). Black Scoter: 5-30 Nov (1 f) Chickamauga L (KAC et al.). Long-tailed Duck: 21 Nov (4) Boone L, Sullivan & Washington Cos (HPL, BKS). Hooded Merganser: 26 Nov (271) Middlebrook L, Bristol (JWC), max. Osprey: 29 Nov (1) Eagle Bend (RDH, DMy), Irs. Rough-legged Hawk: 15 Nov (1 dark morph) Soddy Mtn (WGH), see table. Golden Eagle: 7 Oct

(2) Soddy Mtn (WGH), see table. Merlin: 30 Sep (1) Greene Co (DHM, ACL). Peregrine Falcon: 27 Aug (1) Rankin Bottoms (DHM, Jim Holt); 2 Sep (1) Washington Co (RLK); 8 Sep (1) Rankin Bottoms (LP); thru season (1-2) near Chattanooga area nest site (m.ob.); Oct into winter (1) downtown Knoxville (CPN et al.).

2000 Fall	Hawkwatch, Soddy Mtn. (WGH et al.)
	9 Sep-9 Dec, (56 days)

Black Vulture	11	Broad-winged Hawk	1669
Turkey Vulture	309	Red-tailed Hawk	160
Osprey	11	Rough-legged Hawk	1
Bald Eagle	23	Golden Eagle	2
Northern Harrier	23	American Kestrel	16
Sharp-shinned Hawk	203	Merlin	8
Cooper's Hawk	34	Peregrine Falcon	5
Red-shouldered Hawk	20	unidentified	2

320 vultures & 2177 hawks = 2497

Grouse-Crane: Ruffed Grouse: 28 Nov (1) Collegedale, Hamilton Co (Gloria Patterson). Virginia Rail: 26 Oct (1) Brainerd Levee (KAC, BJ, JaC, Judy Newsome). Sora: 28 Sep, 20 Oct, 4 Nov (1) Greene Co (DHM, ACL); 30 Sep-26 Oct (1-3) Brainerd Levee (KAC et al.). Sandhill Crane: 26 Sep (16) Soddy Mtn (WGH), ers; 20 Nov (1155) Hiwassee Refuge, Meigs Co (Wally Akins), max; 26 Nov (1) Greene Co (DHM et al.), east of usual migration corridor. WHOOPING CRANE: 24-27 Nov (1) Chuckey, Greene Co (fide DHM, ACL, Linda Northrop, Jim Holt, m.ob., photo by RLK), a radio-tracked individual from the introduced, experimental population in Florida, it had migrated on its own to Michigan for the summer and was now returning to Florida.

Shorebirds: Black-bellied Plover: 18-27 Aug (1-2) Rankin Bottoms (KDE, ABS, DHM et al.); 30 Sep (1) Brainerd Levee (KAC et al.); 22 Oct (1) Kingston Steam Plant (KTOS). American Golden-Plover: 23-26 Aug (1) Rankin Bottoms (DJT, ARH, KDE et al.). Semipalmated Plover: 3 Aug (1) Bledsoe Co (BJ); 8 Sep (14) Rankin Bottoms (LP), max; 12 Sep (4) Austin Springs (HPL, BKS). American Avocet: 6 Nov (3) Brainerd Levee (Betty Wampler). Greater Yellowlegs: 19 Nov (1) Greene Co (DHM, ACL), Irs. Willet: 19-29 Aug (1-2) Rankin Bottoms (RLK, LCM et al.). Upland Sandpiper: 4 Aug (1) Eagle Bend (NeM). Sanderling: 19 Aug- 1 Sep (1-3) Rankin Bottoms (RLK, LCM et al.); 23 Aug (1) Eagle Bend (JDJ); 15 Sep (1) Kingston Steam Plant (ABS). Semipalmated Sandpiper: 31 Aug (50) Rankin Bottoms (RLK), max. Western Sandpiper: 1 Aug (1) Bledsoe Co (BJ); 19 Aug- 8 Sep (1-10) Rankin Bottoms (RLK, LCM et al.). Least Sandpiper: 22 Aug (60) Rankin Bottoms (KDE, ABS),

max. White-rumped Sandpiper: 12 Aug (1) Kingston Steam Plant (John Henderson et al.); 31 Aug-8 Sep (1-4) Rankin Bottoms (RLK et al.); 22 Oct (1) Kingston Steam Plant (KTOS). Baird's Sandpiper: 26-27 Aug (1) Rankin Bottoms (KDE, DJT et al.); 27 Aug (1) Kingston Steam Plant (KDE). Pectoral Sandpiper: 27 Aug (140) Rankin Bottoms (RLK), max. Dunlin: 12 Oct-11 Nov (1-5) Kingston Steam Plant (KTOS). Stilt Sandpiper: 2 Aug (1) Eagle Bend (NeM); 23 Aug-2 Sep (1-5) Rankin Bottoms (DJT, ARH et al.). Buff-breasted Sandpiper: 25 Aug-2 Sep (4-11) Rankin Bottoms (RLK et al.); 9-16 Sep (1) Greene Co (DHM, ACL); 15 Sep (1) Kingston Steam Plant (ABS). Short-billed Dowitcher: 22 Aug-2 Sep (1-9) Rankin Bottoms (KDE, ABS et al.); 21 Oct (4) Kingston Steam Plant (JDJ). Long-billed Dowitcher: 4 Aug (2) Eagle Bend (NeM), ID by voice. American Woodcock: 4 Nov (1) Greene Co (DHM, ACL). Red-necked Phalarope: 7 Sep (1) Tennessee R., Chattanooga (Dan Williams et al.).

Gull-Sapsucker: Ring-billed Gull: 13 Sep (2) Rankin Bottoms (KDE, ABS), ers. Caspian Tern: 17-25 Aug (1-2) Rankin Bottoms (RLK et al.); 20/31 Aug, 13 Sep (1-3) Austin Springs (RLK); 19-26 Aug, 15 Sep (1-4) Kingston Steam Plant (KDE, ABS). Common Tern: 26 Aug (1) Kingston Steam Plant (KDE). Forster's Tern: 28 Aug (1) Austin Springs (RLK); 18 Sep (3) Chickamauga L (KAC); 16 Oct (2) Bennett L., Marion Co (Johnny Parks). Eurasian Collared-Dove: 8 Oct (1) Rhea Co (DJT), first Co record. Barn Owl: 14 -31 Aug (1-4) Greene Co (DHM, ACL); thru mid Sep (1-2 ad, 4 yg) Jefferson Co (KDE); 8 Oct (2) Bledsoe Co (BJ et al.). Common Nighthawk: 28 Nov (12) Knoxville (AW). CALLIOPE HUMMINGBIRD: 25 Nov (1 im m) Monterey, Putnam Co (b-CAS), second state record, present for some time. Red-headed Woodpecker: 16 Sep (1) Greene Co (DHM, ACL); 18/22 Nov (1 im/1 ad) Sullivan Co (JWC, BKS/RLK). Yellow-bellied Sapsucker: 28 Sep (1) Greene Co (DHM, ACL), ers.

Flycatcher-Wren: Willow Flycatcher: 5 Aug (1) Rankin Bottoms (KDE); 26 Aug (1) Kingston Steam Plant (KDE). Scissor-tailed Flycatcher: 2 Aug (1) Charleston, Bradley Co (Jimmy Wilkerson); 7 Oct (1) Brainerd Levee (CPN, RLK et al.). Eastern Kingbird: 27 Aug (60+) Rankin Bottoms (RLK et al.), max. Blue-headed Vireo: 11 Nov (1) Hamilton Co (Jonnie Sue Lyons), Irs. Warbling Vireo: 13 Sep (1) Jefferson Co (KDE, ABS). Philadelphia Vireo: 4 Sep (1) Knoxville (Dan & Laurie Mooney); 8 Sep-1 Oct (1-4) Hamilton Co (KAC, David Aborn); 10 Oct (1) Campbell Co (NeM). Common Raven: 19 Aug (4) n. Greene Co (DHM, ACL); 22 Aug (2) Rankin Bottoms (KDE). Tree Swallow: 9 Oct (500) Chickamauga L (KAC), max. Red-breasted Nuthatch: 7/12 Oct (1) Greeneville (DHM, ACL), only report. Brown-headed Nuthatch: 26 Aug (2)/11 Nov (2-4) Kingston Steam Plant (KDE/DJT); 2 Nov (6) Oak Ridge Reservation, Roane Co (JDJ). Sedge Wren: 18 Sep- 26 Oct (2-10) Brainerd Levee (KAC et al.). Marsh Wren: 18 Sep- 21 Oct (2-5) Brainerd Levee (KAC et al.); 25 Sep (5+) U.T. Plant Science Farm, Knox Co (KDE, DJT); 27 Sep/28 Oct (1) Greene Co (DHM, ACL); 30 Sep (2) Austin Springs (RLK).

Warblers: Golden-winged Warbler: 9/18 Sep (1/2) Hamilton Co (KAC). Tennessee Warbler: 21 Oct (2) Greene Co (DHM, ACL), Irs. Orange-crowned Warbler: 21 Oct (1) Sequatchie Co (BJ); 24 Oct (1) Washington Co (RLK); 25 Oct (1) Hamilton Co

(KAC). Yellow Warbler: 13 Sep (2) Rankin Bottoms (KDE, ABS), Irs. Magnolia Warbler: 26 Oct (2) Hamilton Co (JaC), Irs. Blackburnian Warbler: 23 Oct (2) Greene Co (DHM, ACL), Irs. Cerulean Warbler: 17-30 Aug (1-3) Hamilton Co (KAC, LAW et al.); 30 Aug- 1 Sep (2) Roane Co (JDJ). Prothonotary Warbler: 25 Aug (2) Rankin Bottoms (RLK, ABS), Irs. Connecticut Warbler: 18 Aug (1) Craven's House, Hamilton Co (JaC). Mourning Warbler: 15 Oct (1) Norris Dam SP, Anderson Co (NeM). Wilson's Warbler: 6-30 Sep (7 sightings of 1-3 birds) Hamilton Co (KAC, LAW, BJ et al.), more than usual there; 1 Oct (2) Anderson Co (NeM).

Sparrow-Siskin: Lark Sparrow: 19 Oct (1) Kingston Steam Plant (Tom Thomas). Grasshopper Sparrow: 30 Sep (1) Austin Springs (RLK); 22 Oct (1) Greene Co (DHM, ACL); Irs. Henslow's Sparrow: 18 Sep (1) Amnicola Marsh, Hamilton Co (KAC); 7 Oct (1) Brainerd Levee (DJT); 2 Nov (1) Oak Ridge Reservation, Roane Co (JDJ). LeConte's Sparrow: 28 Oct (2) Kyker Bottoms, Blount Co (KTOS); 6 Nov (1) Kingston Steam Plant (ARH). Lincoln's Sparrow: 30 Sep- 26 Oct (1-2) Brainerd Levee (KAC et al.); 17-19 Oct (1) Greene Co (DHM, ACL); 21 Oct (1) Kingston Steam Plant (JDJ); 21 Oct (2) Kyker Bottoms, Blount Co (KDE). Swamp Sparrow: 28 Sep (1) Greene Co (DHM, ACL), ers. Lapland Longspur: 5 Nov (3) Kingston Steam Plant (ABS, Tony Headrick). SNOW BUNTING: 1 Nov (1) Windrock Mtn, Anderson Co (CPN, Roger Tankersley, Bryan Sunderland); 6-18 Nov (1) Kingston Steam Plant (ARH, m.ob.); possibly the same bird. Rose-breasted Grosbeak: 1 Nov (1) Hamilton Co (Jack Colcolough), Irs. Bobolink: 6 Nov (1) Kingston Steam Plant (ARH), Irs. Purple Finch: very few reports. Pine Siskin: 11/19 Nov (1) Hamilton Co (Jonnie Sue Lyons/KAC), only reports.

Locations: Austin Springs-in Washington Co; Brainerd Levee-in Hamilton Co; Chickamauga L-in Hamilton Co; Eagle Bend-fish hatchery in Anderson Co; Kingston Steam Plant-in Roane Co; Rankin Bottoms-in Cocke Co; Soddy Mtn-in Hamilton Co.

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EASTERN MOUNTAIN REGION — Precipitation was below normal for the period, with October being the driest on record for the area. November was much cooler than normal. An immature Blue-winged Warbler banded on 5 August in Sullivan County provides circumstantial breeding evidence for this species. The bird had very fresh first-basic plumage and there was no pneumaticization of the skull. It was also captured at the same location that a Blue-winged Warbler territory was recorded in 1986. This was a great season for sparrows, with Nelson's Sharp-tailed, Henslow's, and LeConte's being found at both Shady Valley and Townsend.

Many of the records for this report came from four banding operations. At Big Bald Mountain, in Unicoi County, 1256 birds of 54 species were banded. Most common species banded here were Tennessee Warbler (623), Black-throated Blue Warbler (147), Swainson's Thrush (79), and Dark-eyed Junco (49). At Whigg Meadows, in Monroe County, 940 birds of 42 species were banded. Most common species here

were Tennessee Warbler (385), Dark-eyed Junco (210), Black-throated Blue Warbler (59), and Swainson's Thrush (50). At Carver's Gap on Roan Mountain, in Carter County, 435 birds of 46 species were banded. Swainson's Thrush (84), Tennessee Warbler (66), Black-throated Blue Warbler (66), and Dark-eyed Junco (46) were the most common species banded there. At Holston Valley, in Sullivan County, 187 birds of 42 species were banded. The most common species banded here were Northern Cardinal (26), Magnolia Warbler (23), White-throated Sparrow (19), and Tennessee Warbler (11). The first three sites are at high elevation (4500-5500 ft.).

Grebe-Dove: Pied-billed Grebe: 20 Aug (1) Wilbur L (BKS), ers. Eared Grebe: 10 Sep thru season (1-10) S Holston L (JWC et al.), 7th consecutive year present! Doublecrested Cormorant: 16 Sep (59) Chota (DJT). American Bittern: 30 Sep / 20-24 Oct (1) Quarry Bog (HPL, BKS et al.). Great Egret: mid Aug (1) Doe R. in Roan Mtn. village, Carter Co (Jennifer Laughlin), 1st Roan Mtn area record; 16 Sep (2) Chota (DJT). Yellow-crowned Night-Heron: thru 25 Sep (1 ad) Sycamore Shoals S.P., Carter Co (GOW), Irs. Snow Goose: 11 Nov (1) S Holston L (HPL, AW, AJT, JWC et al.). Hooded Merganser: 26 Nov (271) Middlebrook L., Sullivan Co (JWC, LCM, Don Holt), new high count in NE Tenn. Common Merganser: 24 Nov (2) S Holston L (JWC, Andy Jones). Swallow-tailed Kite: 6 Aug (1) Pitman Center, Sevier Co (John Stokes fide J.B. Owen). Bald Eagle: 13/18 Aug (1 ad) S Holston L (JWC, Dave Worley / HPL, BKS); 16 Sep (1 ad, 1 im) Chota (DJT); 30 Sep (1 im) Watauga L, Carter Co (GOW, HPL, BKS); 8 Oct thru season (1-2) S Holston L (HPL, JWC et al.). Northern Goshawk: 16 Sep (1) Hampton (FJA, AJT). Merlin: 21 Aug (1) Erwin, Unicoi Co (BKS); 27 Sep (1) Elizabethton (HPL); 12 Nov (1) Carver's Gap (RLK et al.). Peregrine Falcon: 30 Sep (1) Carter Co (GOW, HPL, BKS); 8 Oct (2) Holston Valley (HPL, BKS); 29 Oct (1) Quarry Bog (LCM, HPL, JLS, Don Holt). Northern Bobwhite: 10 Sep (2) Whigg Meadow (DFV), at 4500 ft. elevation. Sora: 30 Aug (1) Wilbur L (HPL, BKS); 27-30 Sep (1) Quarry Bog (HPL, BKS, GOW). Sandhill Crane: 11-12 Nov (2) S Holston L (AW, AJT, JWC, HPL et al.). American Avocet: 10 Aug (8) S Holston L (HPL et al.). Sanderling: 27-30 Aug (1) S Holston L (JWC). Semipalmated Sandpiper: 5 Aug (1) S Holston L (JWC et al.), ers. Western Sandpiper: 8 Aug (1) S Holston L (HPL, BKS), ers. Least Sandpiper: 5 Aug (1) S Holston L (JWC et al.), ers. White-rumped Sandpiper: 20 Aug (1) S Holston L (HPL). Dunlin: 17 Oct (1) S Holston L (HPL, BKS). American Woodcock: 16 Sep (2) Ripshin L, Carter Co (FJA, AJT); 2-16 Oct (1) Carver's Gap (RLK). Ring-billed Gull: 10 Aug (2) S Holston L (HPL), ers. Forster's Tern: 1-27 Aug (1-2) S Holston L (JWC, HPL, RLK). Black Tern: 27 Aug-3 Sep (3) S Holston L (JWC, RLK). Mourning Dove: 17-30 Aug (1-4) Carver's Gap (RLK), unusually high elevation.

Cuckoo-Pipit: Yellow-billed Cuckoo: 9 Oct (1) Holston Mtn, Sullivan Co (KK, LCM, RLK), Irs. Belted Kingfisher: 30 Aug (1) Carver's Gap (RLK), unusually high elevation. Yellow-bellied Flycatcher: 15 Sep (1 b) Big Bald Mtn (GRM). Alder Flycatcher: 17 Aug (1 calling) Carver's Gap (RLK), Irs. Tree Swallow: 9 Oct (130+) S Holston L (KK, LCM, JWC et al.). Yellow-throated Vireo: 18 Sep (1 b) Whigg Meadow (DFV). Warbling Vireo: 16 Sep (1) Elizabethton (GOW, HPL, BKS). Philadelphia Vireo: 14-17 Sep (3 b) Whigg Meadow (DFV); 27 Sep (1 b) Big Bald Mtn

(GRM). Black-capped Chickadee: 9 Sep (2 b) Whigg Meadow (DFV); 23 Sep (4) Cherohala Skyway, Monroe Co (DJT). Carolina Chickadee: 17 Aug-12 Oct (11 sightings of 1-2) Carver's Gap (RLK); 3 Sep (1 b) Big Bald Mtn (GRM); 9-13 Sep (6 b) Whigg Meadows (DFV); unusual at all 3 sites because of elevation. Tufted Titmouse: 8 Sep-16 Oct (5 sightings of 1) Carver's Gap (RLK). Red-breasted Nuthatch: 20/30 Sep (2 b) Big Bald Mtn (GRM). Brown Creeper: 31 Aug (1) Hampton (BKS), ers at low elevation. Carolina Wren: 19 Aug (1 b) Carver's Gap (RLK); 4 Sep (1 b) Big Bald Mtn (GRM); unusual at high elevation. Sedge Wren: 16 Sep/9-25 Oct (1) Quarry Bog (HPL, GOW, BKS/RLK, KK, LCM et al.). Marsh Wren: 10 Oct (1) Elizabethton (BKS, HPL); 21 Oct (1) Laurel L. Refuge, Monroe Co (DJT); 25-27 Oct (1-2) Quarry Bog (RLK, HPL, BKS). Swainson's Thrush: 28 Sep (100+, 28 b) Carver's Gap (RLK), max. Hermit Thrush: 17 Aug (1 singing) Carver's Gap (RLK). American Pipit: 25 Nov (120+) Holston Valley (JWC, RLK), max.

Warbler-Siskin: Blue-winged Warbler: 5 Aug (1 im, b) Holston Valley (RPL), see intro.; 14 Sep (1 b) Big Bald Mtn (GRM); 27 Sep (1) Elizabethton (HPL). Goldenwinged Warbler: 10 Sep (1 b) Carver's Gap (RLK); 16-29 Sep (3 b) Big Bald Mtn (GRM). Tennessee Warbler: 9 Sep (300+) Carver's Gap (RLK), max; 22 Oct (1) Quarry Bog (BKS, Tess Cumbie), Irs. Orange-crowned Warbler: 10 Sep (1 b) Big Bald Mtn (GRM); 10 & 29 Sep/4 Nov (3 b) Holston Valley (RPL). Black-throated Blue Warbler: 9 Sep (100+) Carver's Gap (RLK), max. Yellow-rumped Warbler: 7 Sep (1 b) Big Bald Mtn (GRM), ers. "Yellow" Palm Warbler: 17 Oct (1) S Holston L (BKS); 24 Oct (2 b) Holston Valley (RPL). Blackpoll Warbler: 29 Sep (1 b) Big Bald Mtn (GRM). Mourning Warbler: 8 Sep (1 b) Carver's Gap (RLK). Wilson's Warbler: 6 Sep (1 b) Carver's Gap (RLK); 8/14 Sep (2 b) Big Bald Mtn (GRM); 16 Sep (3) Carter Co (GOW, FJA, RLK); 27 Sep (1) Elizabethton (BKS); 30 Sep (3) Elizabethton Fall Count; good showing. Summer Tanager: 10 Sep (1) Carver's Gap (RLK); 12 Sep (1 b) Whigg Meadows (DFV). Rose-breasted Grosbeak: 17 Sep (40) Carver's Gap (RLK), max. Vesper Sparrow: 22 Oct (4) Quarry Bog (BKS, Tess Cumbie); 1 Nov (1) Townsend (LAW). Savannah Sparrow: 31 Oct (50+) Quarry Bog (HPL, RLK), max. Grasshopper Sparrow: 17 Oct (1) S Holston L (HPL, BKS); 21 Oct (1) Townsend (DJT). Henslow's Sparrow: 29 Oct (1) Quarry Bog (JLS, HPL, LCM); 1 Nov (1) Townsend (LAW et al.). LeConte's Sparrow: 20-31 Oct (1-2) Quarry Bog (HPL, AW, BKS, RLK et al.), only second record in NE Tenn.; 29 Oct-5 Nov (1) Townsend (DJT et al.). Nelson's Sharp-tailed Sparrow: 15-29 Oct (1) Quarry Bog (HPL, BKS); 15 Oct-5 Nov (1-4) Townsend (CM, DJT, AJT, LAW et al.). Lincoln's Sparrow: 27 Sep (1) Elizabethton (HPL); 12 Oct (1) Wilbur L (HPL); 17 Oct (1) Hampton (BKS); 21 Oct Quarry Bog (RLK, AW, AJT); 5 Nov (1) Townsend (CM). Bobolink: 16 Sep (18) Chota (DJT); 15 Oct (2) Townsend (CM). Rusty Blackbird: 21 Oct (2) Quarry Bog (RLK, AJT, AW), ers. Baltimore Oriole: 6 Sep (1) Hampton (BKS), Irs. Red Crossbill: 13 Aug (4) Shady Valley, Johnson Co (JWC, Dave Worley, JLS), 1st record there; 30 Aug/8 Sep (1) Carver's Gap (RLK). Pine Siskin: 17 Aug thru season (1-12) Carver's Gap (RLK).

Locations: Big Bald Mtn-in Unicoi Co; Carver's Gap-on Roan Mtn in Carter Co; Chota-in Monroe Co; Elizabethton-in Carter Co; Hampton-in Carter Co; Holston

Valley-in Sullivan Co; Quarry Bog-in Shady Valley in Johnson Co; S Holston L-in Sullivan Co; Townsend-in Blount Co; Whigg Meadows-in Monroe Co; Wilbur L-in Carter Co.

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