



# THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

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## REPORT OF THE TENNESSEE BIRD RECORDS COMMITTEE

RICHARD L. KNIGHT

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This report describes actions taken by the Bird Records Committee (formerly Certification Committee) of the Tennessee Ornithological Society from 1987 into 1993. Committee members and alternates who served during this period were Dianne P. Bean, Don L. Davidson, Robert P. Ford, R. John Henderson, Richard L. Knight, George R. Payne, Jr., Stephen J. Stedman, James T. Tanner, David F. Vogt, and Martha G. Waldron. Most voting was conducted through the mail. Previous publications of the committee are the official state list (Nicholson 1983) and an addendum (Nicholson and Stedman 1988). Future reports of the committee should appear on an annual basis.

Acceptance criteria have remained the same. A species is placed on the confirmed list based upon either (a) extant, verified specimen, photograph, or sound recording, each accompanied by written details, or (b) satisfactory written documentation of three independent sight records. Lacking these levels of documentation, a species is placed on the provisional list based upon one or two sight records with satisfactory written documentation. Acceptance to either list requires a unanimous decision by the committee.

In this account, the committee reports 29 accepted records of 22 species (plus one subspecies) and seven records of five species that were not accepted. A couple of records from this coverage period are still pending. Full written accounts of over half of these records have not yet been published, as is the case for many other previous records. The committee encourages birders to write and publish accounts of their observations, as these will become significant historic notes.

As a result of committee action taken up to this point, the official Tennessee bird list consists of 355 confirmed species and 19 provisional species for a total of 374 species.

Observers who submitted documentation to the committee are Benton Basham, Donald W. Blunk, James Brooks, Carolyn H. Bullock, C. Kinian Cosner, Jr., William G. Criswell, Brian Cross, Jack Dodd, C. Gerald Drewry, Jr., Darryl Edmisson, Maurice E. Edwards, Victor Fazio, Kay Flowers, Joyce Haigh, Ellen Hammond, John Henderson, Michael Hughes, William N. Jernigan, Richard L. Knight, J. Anthony Koella, Howard P. Langridge, Madge Lawrence, Larry Masters, Virginia B. Reynolds, John C. Robinson, Damien J. Simbeck, Bobby Snow, Stephen J. Stedman, Martha

Waldron, and Terry Witt. The committee thanks these people for their cooperation.

Records mentioned only in seasonal summaries in *The Migrant* or *American Birds* (now *Audubon Field Notes*) are cited in the text.

#### ACCEPTED RECORDS

Pacific Loon (*Gavia pacifica*): Written documentation of a single bird seen at Percy Priest Lake, Davidson County, from 6-20 March 1988 (*Am. Birds* 42:445, 1988) was accepted on second reading. This becomes the first record for the state and the species is placed on the provisional list.

Magnificent Frigatebird (*Fregata magnificens*): Photographs and written documentation of a single bird seen soaring over Cherokee Lake, Jefferson County portion, on 24 September 1988 (*Migrant* 60:31, 1989) clearly indicate this species. Written documentation of a single bird seen flying over Columbia, Maury County, on 27 September 1988 (*Migrant* 60:28, 1989) was also accepted. These represent the first and second records for the state and the photographs place the species on the confirmed list.

Great White Heron (*Ardea herodias occidentalis*): Written documentation and marginal photographs of a single bird seen at South Holston Lake, Sullivan County (and across the border in Virginia), on 15-16 October 1990 (Knight *et al.* 1992) were accepted on second reading. This record was also accepted by the Virginia Records Committee (T. Kain, *pers. comm.*). This becomes the first state record of what is currently regarded as a race of the Great Blue Heron (*A. herodias*).

Glossy Ibis (*Plegadis falcinellus*): Written documentation of a single bird seen at the Barkley Waterfowl Management Area, Stewart County, on 10-11 May 1988 (*Migrant* 59:96, 1988) was accepted. This becomes the third accepted record (lacking photographs) in the state; thus, the species is moved up from the provisional list to the confirmed list.

White-faced Ibis (*Plegadis chihi*): Photographs and written documentation of a flock of 19+ birds seen at the T.E. Maxson Sewage Treatment Plant (a.k.a. Ensley Bottoms, now called The EARTH Complex), Shelby County, on 19 April 1990 (Waldron 1990) clearly indicate this species. This becomes the first unequivocal record for the state (see Robinson 1990). The photographs allow the species to be placed on the confirmed list.

Roseate Spoonbill (*Ajaia ajaja*): Written documentation of a single bird seen at Cross Creeks NWR, Stewart County, on 23 July 1989 (*Migrant* 60:105, 1989) was accepted. This becomes the second state record and the species remains on the provisional list.

Ross' Goose (*Chen rossii*): Written documentation of three birds seen at Britton Ford, part of the Big Sandy Unit of the Tennessee NWR, Henry County, on 25 February 1988 (*Migrant* 59:64, 1988) was accepted. This becomes the third state record, moving the species from the provisional list up to the confirmed list.

White-tailed Kite (*Elanus leucurus*): Written documentation of a single bird seen near Dyersburg, Dyer County, on 20 May 1991 (Criswell 1991b) was accepted. Photographs and written documentation of a single bird seen at Little Turkey Creek, Humphrey's County, on 22 June 1991 (*Am. Birds* 45:1125, 1991) clearly indicate this species. These become the first and second state records, with the photographs allowing placement of the species on the confirmed list. This species was formerly known as Black-shouldered Kite (*E. caeruleus*).

Snowy Plover (*Charadrius alexandrinus*): Written documentation of a single bird seen at Island 13, Lake County, on 9-18 September 1985 (*Migrant* 57:22, 1986) was accepted. Written documentation of a single bird seen near Lenox, Dyer County, on 27 March 1992 (*Migrant* 63:72, 1992) was accepted. These become the second and third records for the state, with the species already on the confirmed list.

Wilson's Plover (*Charadrius wilsonia*): Written documentation of a single bird seen at the T.E. Maxson Sewage Lagoons (a.k.a. Ensley Bottoms, now called The EARTH Complex), Shelby County, on 17 April 1988 (Waldron 1989b) was accepted. This becomes the first accepted record in the state and the species is placed on the provisional list. Two older reports (West 1957, *Migrant* 32:44, 1961) lacked details and were deemed unacceptable by the committee prior to publishing the official list in 1983.

Long-billed Curlew (*Numenius americanus*): Written documentation of a single bird seen near Tiptonville, Lake County, on 11 September 1991 was accepted. This becomes the second record for the state and the species remains on the provisional list.

Sharp-tailed Sandpiper (*Calidris acuminata*): A published photograph (*Am. Birds* 47:106, 1993) and written documentation of a single bird seen at The EARTH Complex, Shelby County, on 12-19 September 1992 were accepted. This becomes the first state record and the species is placed on the confirmed list.

Ruff (*Philomachus pugnax*): Written documentation of a single bird seen at the T.E. Maxson Sewage Lagoons (a.k.a. Ensley Bottoms, now called The EARTH Complex), Shelby County, on 21 August 1988 (Waldron 1989a) was accepted. Written documentation of a single bird seen at Austin Springs, Washington County, on 10-13 May 1989 (Knight 1990) was also accepted. These become the second and third state records and the species is moved up from the provisional list to the confirmed list.

Pomarine Jaeger (*Stercorarius pomarinus*): Written documentation of two birds seen at Watauga Lake, Carter and Johnson counties, on 22-23 September 1989 (Langridge and Cross 1991) was accepted. This becomes the second state record, with the species already on the confirmed list.

Parasitic Jaeger (*Stercorarius parasiticus*): Written documentation of a single bird seen at Watauga Lake, Johnson County portion, on 22-23 September 1989 (Langridge and Cross 1991) was accepted. This becomes the third record in the state, with the species already on the confirmed list.

Common Black-headed Gull (*Larus ridibundus*): Written documentation of a single bird seen at Kingston Steam Plant, Roane County, on 1 May 1988 (*Migrant* 59:101, 1988) was accepted. This becomes the second state record, with the species already on the confirmed list.

Lesser Black-backed Gull (*Larus fuscus*): Written documentation of two immature birds seen at Pickwick Dam, Hardin County, on 28-29 December 1990 (*Migrant* 62:31, 1991) was accepted. Written documentation and a marginal photograph of an adult gull seen at Chickamauga Lake, Hamilton County, on 13 February 1991 (Witt 1992) were accepted. These become the first and second accepted state records and the species is placed on the confirmed list.

Sabine's Gull (*Xema sabini*): Written documentation of a single bird seen at *Chickamauga Lake, Hamilton County, on 20 September 1988 was accepted. This becomes the first state record and the species is placed on the provisional list.*

Royal Tern (*Sterna maxima*): Written documentation of two birds seen at Watauga Lake, Johnson County portion, on 22 September 1989 (Langridge and Cross 1991) was accepted. This becomes the first state record and the species is placed on the provisional list.

Arctic Tern (*Sterna paradisaea*): Written documentation of a single bird seen at Island 13, Lake County, on 6 July 1990 (Criswell 1991a, Cardiff and Dittmann 1991) was accepted. This becomes the first state record and the species is placed on the provisional list.

Black-chinned Hummingbird (*Archilochus alexandri*): Photographs and written documentation of a single bird measured and banded at Chattanooga, Hamilton County, on 6 November 1990 (Sargent 1993) were accepted. This becomes the first state record and the species is placed on the confirmed list.

Varied Thrush (*Ixoreus naevius*): Photographs and written documentation of a single bird seen at Signal Mountain, Hamilton County, from 13 December 1990 to 12 March 1991 (Edwards 1991, *Am. Birds* 45:340 [photograph], 1991) clearly indicate this species. Written documentation of a single bird seen near Soddy, Hamilton County, on 11-12 February 1991 (*Migrant* 63:62, 1992) was accepted. These become the first and second state records and the species is placed on the confirmed list.

Pine Grosbeak (*Pinicola enucleator*): Written documentation of four birds seen at Eagle Creek, Tennessee NWR, Benton County, on 28 March 1992 (*Migrant* 63:73, 1992) was accepted. This becomes the first state record (not counting fossil evidence, see Parmalee and Klippel 1982) and the species is placed on the provisional list.

#### RECORDS NOT ACCEPTED

Storm-petrel sp.: Written documentation of a single bird seen at Watauga Lake, Carter County portion, on 22 September 1989 (Langridge and Cross 1991) was not accepted (1-2 vote) due to the extreme distance and poor weather conditions.

White-tailed Tropicbird (*Phaethon lepturus*): Written documentation of a single bird seen flying over Douglas Lake, Jefferson County, on 8 September 1990 was not accepted (1-2 vote) due to the brevity and great distance involved, as well as a lack of weather patterns sufficient to drive such a highly pelagic species so far inland.

Lesser Black-backed Gull: Written documentation of an adult gull seen at Watauga Lake, Johnson County portion, on 22 September 1989 (Langridge and Cross 1991) was not accepted (1-2 vote) due to the lack of size comparison and leg color determination, plus the distance involved. Written documentation of an immature gull seen at Pickwick Dam, Hardin County, on three dates from 10 February to 11 April 1990 (*Am. Birds* 44:441, 1990) was not accepted (2-1 vote) due to insufficient detail to eliminate all other possibilities.

Say's Phoebe (*Sayornis saya*): Written documentation of a single bird seen at Nashville, Davidson County, on 4 October 1987 was not accepted (2-1 vote) due to an incomplete description.

Kirtland's Warbler (*Dendroica kirtlandii*): Written documentation of a single bird seen at Jonesborough, Washington County, on 1 October 1989 (*Am. Birds* 44:91, 1990) was not accepted (1-2 vote). Written documentation of a single bird seen at Chattanooga, Hamilton County, on 8 October 1989 was not accepted (1-2 vote). Committee members felt that each record lacked enough detail to eliminate all other possibilities.

## LITERATURE CITED

- CARDIFF, S.W. AND D. DITTMANN. 1991. Comments on the first Arctic Tern record for Tennessee. *Migrant* 62:67-68.
- CRISWELL, W.G. 1991a. Arctic Tern at Island 13, Lake County, Tennessee: The first state record. *Migrant* 62:66.
- CRISWELL, W.G. 1991b. The first Tennessee record of a Black-shouldered Kite. *Migrant* 62:69.
- EDWARDS, M.E. 1991. First record of a Varied Thrush in Tennessee. *Migrant* 62:57-65.
- KNIGHT, R.L. 1990. Ruff in northeast Tennessee. *Migrant* 61:44.
- KNIGHT, R.L., H.P. LANGRIDGE AND B.L. CROSS. 1992. Great White Heron at South Holston Lake, Tennessee and Virginia. *Migrant* 63:1-3.
- LANGRIDGE, H.P. AND B. CROSS. 1991. Hurricane Hugo brings oceanic birds to Watauga Lake, Tennessee. *Migrant* 62:29-31.
- NICHOLSON, C.P. 1983. The official list of Tennessee birds. *Migrant* 54:2-5.
- NICHOLSON, C.P. AND S.J. STEDMAN. 1988. The official list of Tennessee birds: Addendum 1. *Migrant* 59:1-4.
- PARMALEE, P.W. AND W.E. KLIPPEL. 1982. Evidence of a boreal avifauna in middle Tennessee during the late Pleistocene. *Auk* 99:365-368.
- ROBINSON, J.C. 1990. An annotated checklist of the birds of Tennessee. University of Tennessee Press: Knoxville.
- SARGENT, R.M. 1993. A Black-chinned Hummingbird in Tennessee. *Migrant* 63:1-3.
- WALDRON, M. 1989a. Second record of Ruff in Tennessee. *Migrant* 60:51.
- WALDRON, M. 1989b. Wilson's Plover sighting in Shelby County, Tennessee. *Migrant* 61:65-66.
- WALDRON, M. 1990. First Tennessee record of White-faced Ibis. *Migrant* 61:65-66.
- WEST, MRS. E.M. 1957. Fall water birds at Chattanooga. *Migrant* 28:57-59.
- WITT, T.J. 1992. The Lesser Black-backed Gull in Tennessee. *Migrant* 63:89-90.
- Accepted 29 January 1995.

ANHINGA OVER AMNICOLA MARSH,  
HAMILTON COUNTY, TENNESSEE

LILLIAN H. DUBKE

8139 Roy Lane, Ooltewah, TN 37363

On an 11 October 1987 field trip to Amnicola Marsh, Hamilton County, Tennessee, a female Anhinga (*Anhinga anhinga*) was identified as it soared overhead. The individuals who saw and identified the bird were Lillian H. Dubke, Paul C. Harris, Elena S. Killian, Jonnie Sue Lyons and J. Thomas Patton.

At the time of the sighting (15:30 hrs) the sun was to the rear with extremely clear viewing conditions. The bird first appeared low over the nearby treetops gliding at approximately 7-8m (25 ft) above. It presented a feeling of leisurely movement — flapping only. Then it caught a thermal and soared gracefully, circling in wider rings and turning so that its silhouette and color were diagnostic: buffy neck and breast; silvery wing patches; a long thin outstretched neck; body thin; wings flat and pointed; tail same length as the head and neck, but fanned out. It soared higher and higher and then descended again near the treetops and finally headed out of sight toward the nearby Tennessee River.

Optical equipment used included 10x40 Leitz binoculars and two of the observers (Dubke and Killian) were able to track the bird with their 15-60x Bausch & Lomb and 20-45x Redfield telescopes. All of the observers were well acquainted with the species from frequent sightings in Florida.

These are details on the first East Tennessee sighting (*Migrant* 59:39, 1988).

Accepted 27 November 1992.

## MAJOR FALLOUT OF WATER BIRDS IN NORTHEAST TENNESSEE

RICHARD L. KNIGHT

804 North Hills Drive, Johnson City, TN 37604

Inclement weather associated with the passage of a cold front caused a fallout of many migrating water birds in the northeast corner of Tennessee on 9 November 1991. More than 6,000 birds of 32 species were involved (Table 1). Included were several rare species and unusually high numbers of others in a part of the state not known for spectacular flights of water birds. Following this same weather system, several noteworthy sightings were reported from western and central North Carolina (LeGrand 1992).

The cold front passed through northeast Tennessee during the night of 8-9 November 1991 with fog, light rain or snow, and temperatures of zero to -5°C. Ice formed in some mountainous areas, and at least 26 birds (mostly diving ducks) were killed by traffic on an icy road at Flag Pond in Unicoi County early on the 9th. Overcast conditions and cool temperatures (to 8°C) prevailed that day. As it was a Saturday, two groups and several individual observers were afield.

The compilation in Table 1 does not include the following: resident Canada Geese (over 500 seen that day), one Snow Goose present at Wilbur Lake since mid-September, resident Wood Ducks (over 250 seen, may have included some migrants), two lingering Blue-winged Teal in Washington County, and a few Greater Yellowlegs, Pectoral Sandpipers, and Dunlin present before the frontal passage. Further influx of migrants occurred on following days.

Comments on selected species:

Red-throated Loon: one on South Holston Lake on 12 November.

Common Loon: one grounded on a wet road at the base of Roan Mountain was the first record there; it was released on Watauga Lake by a Carter County wildlife officer.

Horned Grebe: the 550 on Boone Lake is a new high count for the state; the previous local high was 79.

Tundra Swan: two found on the Nolichucky River in Washington County remained until 1 March 1992, for the second overwintering record locally.

Ring-necked Duck: increased to 260 on 14 November at Wilbur Lake.

scaup sp.: mostly Lesser Scaup, but included at least one Greater.

Black Scoter: the three on Boone Lake were females; another female was found on South Holston Lake on 12 November; these represent the second and third local records.

Bufflehead: increased to 345 on 14 November at Wilbur Lake.

Ruddy Duck: the 81 on Boone Lake is a new high count locally.

Ring-billed Gull: a small flock at Burbank, Carter County, was the first Roan Mountain area record.

Observers: Phine Britton, Brian Cross, Susan Ford, Beth Hogan, Jim Holt, Danny Huffine, Richard Knight, Johnny & Pat Lynch, Robin Lynch, Tom McNeil, Charles Moore, Linda Northrop, Stan Strickland, Gary Wallace, Frank Ward, Jennifer Wilson, and Pete Wyatt.

### LITERATURE CITED

LEGRAND, H.E., JR. 1992. Briefs for the files. *Chat* 56:83-93.

Accepted 16 November 1993.

Table 1. Water Bird Fallout in Northeast Tennessee (9 November 1991)

species	NWS	NOR	BOL	WIL	WAT	SHL	other	total
Common Loon	5	-	11	10	78	10	1	115
Pied-billed Grebe	2	6	6	1	8	42	1	66
Horned Grebe	-	-	550	1	14	70	1	636
Double-crested Cormorant	54	1	-	-	-	1	-	56
Great Egret	1	-	-	-	-	-	-	1
Tundra Swan	1	3	-	-	-	-	-	4
Green-winged Teal	-	5	5	1	4	-	2	17
American Black Duck	50	-	-	12	2	-	-	64
Mallard	12	4	6	45	-	-	-	67
Northern Shoveler	-	-	-	1	-	-	-	1
Gadwall	-	8	-	5	6	-	22	41
American Wigeon	-	1	-	22	13	-	-	36
Canvasback	-	3	-	-	-	-	1	4
Redhead	-	8	20	2	-	5	5	40
Ring-necked Duck	-	35	100	108	3	1	35	282
scaup sp.	-	6	900	8	140	1500	1	2555
Surf Scoter	-	-	-	9	-	-	-	9
White-winged Scoter	-	-	-	-	-	2	-	2
Black Scoter	-	-	3	-	-	-	-	3
Common Goldeneye	-	20	-	-	-	2	-	22
Bufflehead	-	10	95	160	117	35	-	417
Hooded Merganser	-	34	1	6	14	4	11	70
Red-breasted Merganser	-	-	-	-	22	44	-	66
Ruddy Duck	-	2	81	-	18	57	-	158
American Coot	1	15	65	1	200	450	40	772
Dunlin	3	-	-	2	-	-	-	5
Bonaparte's Gull	-	200	42	-	50	125	-	417
Ring-billed Gull	8	120	30	76	20	10	60	324
Herring Gull	2	-	-	-	-	-	-	2
Common Tern	1	-	-	-	-	-	-	1
Forster's Tern	1	-	-	-	8	-	-	9
tern sp.	-	3	-	-	-	-	-	3
Grand Total								6265

key: NWS=Nolichucky Waterfowl Sanctuary, Greene Co.; NOR=Nolichucky River & nearby ponds, Washington & Unicoi Cos.; BOL=Boone Lake, Washington & Sullivan Cos.; WIL=Wilbur Lake & Watauga River, Carter Co.; WAT=Watauga Lake, Carter & Johnson Cos.; SHL=South Holston Lake, Sullivan Co.; other=other scattered locations (mostly farm ponds).

Accepted 16 November 93

## BOOK REVIEW

ROBERT M. HATCHER

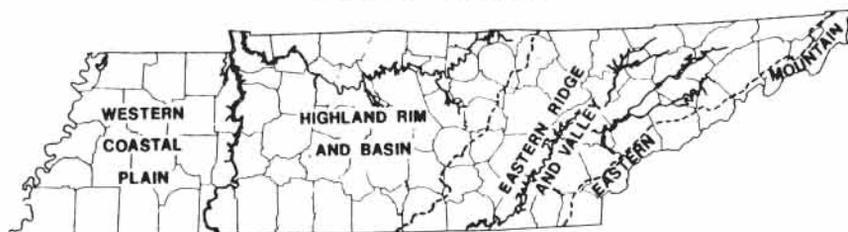
ENJOYING NATURE ABOUT US — A TENNESSEE FARMER'S LIFELONG OBSERVATIONS. Joe D. Allen. 1994. Austin Peay State University Center for Field Biology, Clarksville. 310 pp. \$4.00

The author is a keen observer and student of nature. For 38 years, he has written a weekly nature column for *The Leaf-Chronicle* of Clarksville, Tennessee. At the suggestion of Dr. David Snyder, biology professor and ornithologist at Austin Peay State University, a sampling of his more than 1,800 articles were compiled for this paperback book. Approximately half the book (Section I) is devoted to accounts of 60 bird species, including 27 residents, 26 warm season, and 7 cool season species and/or groups (e.g. vultures). Section II provides 24 pages of practical presentation, appropriate landscaping materials, and feeding. Sections III-V provide 96 pages of further species/group accounts about mammals, insects, herps, and plant species. Adaptations to nature and values to the farmer/environment are common threads of much of his accounts. His interesting write style helps people of all ages and education levels to better understand, appreciate, enjoy, and conserve birds and other nature around them. The book is provided at a bargain price as an education project of APSU, with no royalties going to the author. It is available from: Publications Manager, The Center of Field Biology, APSU, Clarksville, TN 37044 at \$4.00 per copy.

Received 20 May 1994.

## THE SEASON

ROBERT P. FORD, Editor



### SPRING 1993

Spring migration across the state seemed sporadic this season. Waves of birds traveled through Tennessee early, and later flights were apparently stalled south of Tennessee during severe weather. Once the weather cleared, many birds seemed to pass quickly through Tennessee. The weather was significant this season. After a warm winter in Tennessee, spring brought cooler temperatures. The weather event "of the century" was a snowstorm that covered much of the eastern United States during the second week of March (a detailed account is given in the Cumberland Plateau and Ridge and Valley report).

Each regional compiler offers detailed reports from across the state in this exceptionally long report. As a result, I will not go into significant detail here, but instead I will encourage you to find the significant observations in each region. To add incentive to your search, consider the new state record this season: a Clark's Grebe.

Abbreviations used in this report include ad-adult; b-banded; Co.-county; EOP-end of period; ers-earliest reported sighting; fide-reported by; im-immature; lrs-latest reported sighting; max-maximum one-day count in one county or location; m.ob.-many observers; \*-written details submitted.

**WESTERN COASTAL PLAIN REGION** — Spring migration was a little late, but some species managed to make new early and late dates for the region and the state. The spring season was marked with cool temperatures following a mild winter. The expected spring showers were as late as the spring arrivals. All species of warblers were accounted for this season. Warblers had special attention at Reelfoot Lake during the Spring meeting of the TOS.

Unexpected visitors were the Tricolored Heron, the Oldsquaw residing from two past seasons, a Golden Eagle, a Piping Plover, a Laughing Gull and a Painted Bunting in Lake County. A late state record was set by the Tundra Swan. Early state records were set by the Western Sandpiper, Long-billed Dowitcher, and a Blue Grosbeak. Many other early and late west Tennessee records set by other migrants are noted in the report.

*Loon-Merganser*: Common Loon: 5/7 May (1) Hardeman Co. (Robert Ilardi); 13 May (1) Dyer Co. (WGC). Horned Grebe: 9/27 Mar (2) Rift L S P, Lake Co. (WGC). American White Pelican: 21 Mar (6) TEC (DoM, VBR, MGW); 28 Mar-1 Apr (40) Dyer Co.; 10-20 Apr (37) Lake Co. (WGC); 17 Apr (140+) TEC (MLG, MGW); 4 May

(3) Lake Co. (WGC). Double-crested Cormorant: 9-29 Mar (400+) Long Pt, Rlft L NWR (WGC); 20 Mar (650-700) TEC (MLG). American Bittern: 20 Apr (1) Lake Co. (WGC); 2 May (1) Rlft L S P, Lake Co. (RLK). TRICOLORED HERON: 1-26 May (5 max) Lake Co. (WGC, m.ob.). Yellow-crowned Night-Heron: several small colonies reported in Memphis area (BBC, LCC), 31 Mar (4) courting behavior observed (Joyce North, Madge Lawrence); individual birds were reported in Dyer and Lake Cos. (WGC); 8 May (6) Haywood Co. (MAG, BLG). Black-crowned Night-Heron: 2 May (1) Black Slough/Phillippy Pits, Lake Co. (MAG, RLK); 4/18 May (1) Dyer Co., 26 May (2 ad) Lake Co. (WGC). Tundra Swan: 5 Mar (3) Hatchie NWR (USFWS); 27 Mar (2) Millington, Shelby Co. (Farris Myers), late state. Greater White-fronted Goose: 21 Mar (5) Dyer Co. (WGC). Northern Shoveler: 7 May (1) Lake Co. (MAG, BLG); 13 May (pair) Hwy 79W, Lake Co. (WGC), late west Tennessee. OLDSQUAW: 7-28 Mar (2) TEC (DoM, VBR, MGW). Hooded Merganser: 14/21 May (1 female) Shelby Farms (MLG), late for Shelby Co.

*Raptors:* Osprey: 5-29 Mar/8 May (1/2) O'Neal Lake, Hatchie NWR (USFWS, MLG, BLG); 14/23 Mar (1) Rlft L, Obion Co.; 27 Mar (1) Millington, Shelby Co. (Farris Myers); 27 Mar-10 Apr (1) Dyer Co., two locations; 6 Apr (1 on nest) Rlft L, Lake Co., 20 Apr (2) Is 13 (WGC). Mississippi Kite: 31 Mar (1) TEC (Joyce North, Madge Lawrence); 29 Apr-8/19 May (2) Shelby Farms (MTOS); 8 May (4) Hatchie NWR (MAG, BLG). Bald Eagle: 5-9 Mar (2 ad) O'Neal Lake, Hatchie NWR (USFWS); 9 Mar (2 ad on nest)- EOP (2 ad, 2 yg) new site on levee in Kentucky, north of Tenn. line (WGC); 30 May (1 ad) Decatur Co. (Bonnie White). Northern Harrier: 13 May (1) Shelby Farms (Gerald Papachristou), late Shelby Co. Sharp-shinned Hawk: 7 Mar (1) Gibson Co. (MAG, BLG); 10/27 Mar (1) Shelby Farms (SSL, VBR, MGW); 23 Mar (1) Rlft L S P, Lake Co. (WGC). Cooper's Hawk: 14 Mar (1) TEC (DoM, VBR, MGW); 29 Mar (1) Germantown, Shelby Co. (MLG); 4 Apr (1) Madison Co. (SNM). "Kriders" Red-tailed Hawk: 7 Mar (1) TEC (VBR, MGW). GOLDEN EAGLE: 17 Mar (1 im) Phillippy, Lake Co. (WGC), late west Tenn. Peregrine Falcon: 25 Apr (1) TEC (VBR); 29/30 (1) Dyer/Lake Cos. (WGC); 30 May (1 im) Memphis (OKM), late Shelby Co. and west Tenn.

*Sora-Phalarope:* Sora: 16 Apr (1) TEC (DoM, VBR, MGW); 10/24 Apr (2) Hwy 79 and Great River Road, Lake Co. (WGC); 2 May (1) Lake Co. (VBR). Common Moorhen: 26 Apr (4, heard others) Rlft L, Obion Co. (WGC); 2 May (1) Rlft L (WGC, WRP, Keith Kunkel, Peggy Kunkel); 20 May-EOP (3) TEC (VBR, MGW, m.ob.). American Coot: 29 Mar/6 Apr (225/390+) Rlft L S P, Lake Co. (WGC). Black-bellied Plover: 12/23 May (3/1) Dyer Co. (WGC). Observers submitting records for TEC (CHB, MLG, Aaron Gwin, DoM, WRP, VBR, DLW, MGW). American Golden-Plover: 8 Mar (24) Dyer Co., (32) Lake Co. (WGC); 15 Mar (22) Shelby Farms (MLG); 21 Mar/3 Apr (14/54) TEC (DoM, VBR, MGW); 26 Mar (2) Shelby Farms (VBR); 29 Mar (400) Lake Co.; 5 Apr (275) Dyer Co. (WGC). Semipalmated Plover: 7/26 May (57/13) Lake Co. (WGC). Piping Plover: 20 Apr (1) Lake Co. (WGC), very rare spring migrant, early west Tenn. Black-necked Stilt: 10 Apr (7) TEC; 24 Apr (2) Dyer Co. (WGC); 5 May-EOP (35+ ad, 7 nests) TEC; 10 May (2) Shelby Farms (JBP, GRP); 23 May (2) North Treatment Plant, Shelby Co. (Pat Keiran). Greater Yellowlegs: 17 Mar (1/4) Dyer/Lake Cos. (WGC); 25 Apr (10) TEC. Lesser Yellowlegs: 17 Mar (14) Phillippy, Lake Co.; 15 Apr (56+) Lake Co. (WGC); 21 Mar (1) Shelby Farms (MGW); 7 Mar-20 May (75 max) TEC (VBR, MGW); 26 Apr (275+) Long Point, Rlft L NWR

(WGC). Solitary Sandpiper: 3-17 Apr (9) TEC (MTOS). Willet: 13 Apr (1) TEC, early west Tenn; 24 Apr (14) Lake Co. (WGC). Upland Sandpiper: 17 Apr (10) TEC (MTOS); 13 May (1) Shelby Farms (GRP, JBP). Ruddy Turnstone: 23 May (1) North Treatment Plant, Shelby Co. (Pat Keiran). Semipalmated Sandpiper: 5-29 May (371 max) TEC. Western Sandpiper: 26 Mar/10 May (1) Shelby Farms (VBR, GRP, JBP), early state; 16 May (15+) TEC; 8 May (9) Hatchie NWR (MAG, BLG). Least Sandpiper: 6 Mar (3) Shelby Farms (VBR); 6 Mar-29 May (32) TEC; 8 Mar (8) Lake Co. (WGC). White-rumped Sandpiper: 4/26 May (16+) Lake Co. (WGC); 14 May (2) Shelby Farms (MLG); 16 May-29 May (14 max) TEC. Baird's Sandpiper: 4 Apr (1) Shelby Farms (VBR\*, DoM, MGW); 8/29 May (4 max) TEC; 13/14 May (1) Shelby Farms (GRP, JBP, MLG). Pectoral Sandpiper: 6/27 Mar (4/200+) Shelby Farms (VBR, MLG, MGW); 7 Mar-20 May (125 max) TEC (VBR, MGW); 23 Mar (40) Lake Co. (WGC). Dunlin: 31 Mar/29 May (6-8) TEC; 5 Apr (1) Dyer Co. (WGC); 26 May (12) Is 13 (WGC). Stilt Sandpiper: 8 May (31) Long Point, Rlft LNWR (WGC); 20 May (14) TEC. Buff-breasted Sandpiper: 4 Apr (1) Shelby Farms (VBR\*, DoM, MGW), early; 16 Apr (1) TEC. Dowitcher sp.: 18 May (15) Dyer Co. (WGC). Long-billed Dowitcher: 12 Apr (1) TEC (MLG), early state. Short-billed Dowitcher: 25 Apr (7) TEC (MLG, WRP). Wilson's Phalarope: 1 May (1) Lake Co. (TJW, CW); 5 May (1) TEC.

*Gull-Pipit*: Laughing Gull: 25 Apr (1) Shelby Farms (CHB\*), rare migrant. Franklin's Gull: 18 May (5) Dyer Co. (WGC). Bonaparte's Gull: 17 Mar (52) Rlft L S P, Lake Co. (WGC). Ring-billed Gull: 1 Mar (2) Trenton Wastewater Lagoon, Gibson Co. (MLG); 21 Mar (110) Shelby Farms (MGW); 10/30 Apr (1/6) Lake Co. (WGC). Herring Gull: 27 Mar (1) Dyer Co. (WGC). Caspian Tern: 10/17 May (4/1) Dyer Co. (WGC). Forster's Tern: 15/28 Apr (1/2) Dyer Co.; 26 Apr (1) Rlft L, Lake Co. (WGC); 1 May (3) Rlft L, Lake Co. (MAG, m.ob.). Olive-sided Flycatcher: 28 Apr (1) Shelby Farms (VBR). Yellow-bellied Flycatcher: 18/19 May (1) Shelby Farms (VBR\*, CHB, SNM, MGW). Alder Flycatcher: 18 May (1) Shelby Farms (VBR\*, CHB, SNM, MGW). Willow Flycatcher: 13 May (1) Shelby Farms (Gerald Papachristou). Least Flycatcher: 2-3 May (1) Rlft L S P, Lake Co. (George Mayfield, RLK). Scissor-tailed Flycatcher: 16 May (1) TEC (VBR, MGW). Barn Swallow: 14 Mar (1) TEC (DoM, VBR, MGW). Cliff Swallow: 10 Apr (1) Shelby For S P (WRP); 13 May (15) Eagle Creek, Decatur Co.; 14 May (300 nests, south side, 160 nests, north side) Tenn. River and US Hwy. 412, Decatur/Perry Cos.; (450) Tenn. Hwy. 100 and Duck River, Decatur Co. (BBC, LCC). Red-breasted Nuthatch: 13 Apr (1) Jackson, Madison Co. (Allen and Helen Hight), only report. Brown Creeper: 2 May (1) Rlft L S P, Lake Co. (RLK, David Haggard). House Wren: 10 Apr (1) Shelby For S P (WRP); 17 Apr (1) TEC (MLG); 1 May (3) Lake Co. (RLK). Sedge Wren: 22 Mar (1) Shelby Farms (VBR). Marsh Wren: 10 Apr (11) Iris Hill, northeast Shelby Co. (James and Sue Ferguson); 13 Apr (1) TEC (VBR). Ruby-crowned Kinglet: 15 May (1) Decatur Co. (CHB), late west Tenn. American Pipit: 14 Mar (3) TEC (DoM, VBR, MGW); 15 Mar (2) Shelby Farms (MLG); 17 Mar (24) Phillipy, Lake Co. (WGC).

*Vireo-Longspur*: Red-eyed Vireo: 24 Mar (1) Shelby Farms (VBR), early Shelby Co. and west Tenn. Cape May Warbler: 1 May (1) Burnt Woods, Rlft L, Lake Co. (MAG). Yellow-rumped Warbler: 31 May (1) Hardeman Co. (Linda Zempel, CHB), late west Tenn. Palm Warbler: 24 Mar (1) Shelby Farms (VBR). Prothonotary Warbler: 31 Mar (1) TEC (Joyce North, Madge Lawrence), early Shelby Co. Swainson's Warbler: 28/29 Apr (1) Shelby Farms (WRP, VBR); 8 May (8) Memphis (MTOS); 9 May (1) Shelby

Farms (John and Linda Zempel); 13 May (1) Shelby Farms (CHB, VBR); 22 May (1) Shelby For S P (Nature Conservancy). Connecticut Warbler: 12 May (1) Shelby Farms (VBR). Mourning Warbler: 1 May (1) Walnut Log, Rlft L, Obion Co. (CHB, Dianne Bean); 13 May (1) Shelby Farms (CHB, VBR); 17 May (1) Iris Hill Farm, northeast Shelby Co. (Sue Ferguson). Blue Grosbeak: 24 Mar (1) Shelby Farms (VBR), early state. Indigo Bunting: 3 Apr (1) T O Fuller S P (MTOS) early west Tenn. PAINTED BUNTING: 1 May (1 female) Levee, Lake Co. (RLK\*), first Lake Co. record. Vesper Sparrow: 22/29 Mar (2/9) Shelby Farms (VBR, MGW); 24 Mar (1) Fort Pillow State Park, Lauderdale Co. (HBD, SSL, VBR, Barbara Wilson); 27 Mar (6-8) Dyer Co. (WGC). Grasshopper Sparrow: 28 Apr (3) Shelby Farms (WRP); 2 May (1) Lake Co. (WGC); 8 May (2) Shelby Farms (MTOS). Song Sparrow: 2 May (2) Rlft L S P, Lake Co. (RLK); 29 May-EOP (2) TEC. Lincoln's Sparrow: 24 Mar (1) Shelby Farms (VBR); 17 Apr (1) Shelby Farms (VBR, CHB); 25 Apr (3) Memphis Spring Count ( MTOS); 2 May (2) Lake Co. (RLK); 8 May (1) Memphis (MTOS). Western Meadowlark: 20 Apr (2) Shelby Farms (VBR). Yellow-headed Blackbird: 13/16 Apr (2) TEC (VBR, MGW, DoM). Rusty Blackbird: 7 Mar (8) TEC (VBR, MGW). Lapland Longspur: 6 Mar (3) Shelby Farms (VBR).

*Locations:* Hatchie NWR-Hatchie National Wildlife Refuge, Haywood Co.; Is 13-Island 13, Lake Co.; Shelby Farms-Shelby Farms was Penal Farm, Shelby Co.; Rlft L S P-Reelfoot Lake State Park, Lake/Obion Cos.; Shelby For S P-Shelby Forest State Park, Shelby Co.; TEC-The EARTH COMPLEX, Ensley Bottoms, Shelby Co.; T O Fuller S P-T.O. Fuller State Park, Shelby Co.; Rlft L NWR-Reelfoot Lake National Wildlife Refuge, Lake Co.

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**HIGHLAND RIM AND BASIN** — The Spring migration in the region was felt to be "good" by the majority of observers. Most of the usual nesting and transient neotropical migrants were seen, some in above average numbers. Two strong cold fronts passed through on 4 April and 26 April, with notable "fallouts" following each front. Another late cold front on 31 May deposited at least one unusual bird which will be noted in the Summer Season report. While no outstanding rarities were reported, many uncommon species were observed.

Early Spring was highlighted by large numbers of Chipping Sparrows. In some residential areas, a drive through with windows rolled down yielded singing birds in nearly every yard. House Finches have continued to increase in the region and are nesting in Nashville, as well as other cities. Good numbers of Mourning Warblers were present at Radnor Lake in late May and at least two Connecticut Warblers were present at that time.

*Loon-Bobwhite:* Common Loon: 22 May (1) Woods Res (DLD). American Bittern: 5 May (1) Old Hick L (TJW), fly over. Snowy Egret: 21 Apr (1) Old Hick L (TJW). Cattle Egret: 21 Apr (2) Old Hick L (TJW); 5 May (8) Old Hick L (TJW, DMc), seen flying back and forth from an island near Walton Ferry Rd. to a large nesting colony of Black-crowned Night-Herons, nesting suspected but not confirmed; 8 May (2) Wilson Co. (KN). Black-crowned Night-Heron: 8 May (200) Old Hick L (LJK, Dick Newton), nesting colony on island near Walton Ferry Rd. Yellow-crowned Night-Heron: 19 Apr (1) Nash (MLM); 30 Apr (1) Burg Falls (SJS); 6 May (2) Putnam Co. (SJS, Graham S. Kash), at nest. Snow Goose: 24 Apr (1) Woods Res (DLD). Gadwall:

1 May (1) Mon Pond (SJS), present all May. American Wigeon: 8 May (9) Putnam Co. (MAS, Ann Sanders), new county late Spring date. Ring-necked Duck: 1 May (1) Mon Pond (SJS), present all May. Greater Scaup: 21 Apr (7) Old Hick L (TJW). Bufflehead: 13 Apr (2) Rad L (MLM), Irs. Ruddy Duck: 26 Apr (1) Putnam Co. (SJS), Irs. Turkey Vulture: 12 Apr (5) Wilson Co. (Mark S. Hackney) on nest. Osprey: 1 Apr (1) Nash (MLM); 10 Apr (1) Warren Co. (SNM). Bald Eagle: 17 Apr (1) Woods Res (DLD); 2 May (2) LBL (TJW), nesting pair; 8 May (1) Putnam Co. (SJS, CJB) an immature, 5th county record. Sharp-shinned Hawk: 8 May (1) Putnam Co. (BHS); (1) Putnam Co. (SJS, CJB); (1) Putnam Co (DLC). Cooper's Hawk: 10 Apr (1) Warren Co. (SNM); 29 May (1) Putnam Co. (SJS). Red-shouldered Hawk: 22 Mar (2) Putnam Co. (CS, Ramona Pennington) on nest; 4 and 25 Apr (1) Putnam Co. (BHS) on nest; 8 May (2) Wilson Co. (KN). Broad-winged Hawk: 5 May (1) Cheatham Co. (TJW, DMc); 8 May (1) Wilson Co. (KN). Red-tailed Hawk: (1) Lewis Co. (PGL), leucistic adult. Rough-legged Hawk: 20 Mar (1) Wilson Co. (CS), light morph. Merlin: 1 Apr (1) Putnam Co. (SJS). Ruffed Grouse: 8 May (1) Putnam Co. (BHS).

*Rail-Swallow*: Virginia Rail: 7 Apr (2) Mon Pond (TJW). Sora: 7 Apr (2) Mon Pond (TJW). Sandhill Crane: 1-25 Mar (5000+) Putnam Co., the first migrants were 65 seen on 1 Mar (SJS). On 6 Mar over 1000 cranes were sighted by different observers (SJS, BHS, RWS), some of these may have been the same birds, the last observation was 40 birds on 25 Mar (CS), over 5000 birds were reported which represents 20% of the Eastern population of Greater Sandhill Cranes. Solitary Sandpiper: 16 Apr (1) Rutherford Co. (TJW) ers. Upland Sandpiper: 17 Apr (2) Coffee Co. (DLD); 25 Apr (1) Warren Co. (SNM). American Woodcock: 1 Mar (1) Nash. (MLM); 26 May (2) Metro Ctr. (TJW). Caspian Tern: 21 Apr (2) Old Hick L (TJW). Black-billed Cuckoo: 7 May (1) Nash (PGL); (1) Nash (MLM); 16 May (1) Nash (MLM). Barn Owl: Apr-May (2) Warren Co. (SNM). Common Nighthawk: 28 Apr (1) Rutherford Co. (TJW) ers. Whip-poor-will: 8 May (2) Wilson Co. (KN); 29 May (1) Warren Co. (SNM). Chimney Swift: 1 Apr (1) Rutherford Co. (TJW), ers. Yellow-bellied Sapsucker: 11 Apr (1) Rad L (MLM) Irs. Northern Flicker: 3 Mar (52), seen on drive from Nashville to Savannah, probable migrants (PGL). Olive-sided Flycatcher: 7 May (1) Nash (PGL). Eastern Wood-Pewee: 10 Apr (1) Nash (MLM) ers. Willow Flycatcher: 26 May (1) Metro Ctr (TJW), singing on territory. Least Flycatcher: 21 Apr (2) Old Hick L (TJW); 29 Apr (1) Rad L (MLM); 7 May (1) Nash (PGL). Eastern Kingbird: 11 Apr (1) Metro Ctr (PGL), (1) Rutherford Co. (TJW), ers. Horned Lark: 8 May (4) Putnam Co. (BHS). Tree Swallow: May (8+) 4 sites in Putnam Co. and Mon Pond with nesting birds, numbers decreasing at Mon Pond as habitat declines. Cliff Swallow: 8 May (9) Putnam Co. (Winston and Catherine Walden).

*Creeper-Chat*: Brown Creeper: 27 Mar (1) Rad L (MLM), Irs. Bewick's Wren: Apr-May, Rutherford Co., Wilson Co., several birds found singing on territory, numbers seem to be average for the area (TJW). House Wren: 14 Apr (1) Nash (PGL) ers; 28 Apr (1) Coffee Co. (DLD). Golden-crowned Kinglet: 23 Apr (1) Rad L (PGL) Irs. Blue-gray Gnatcatcher: 24 Mar (1) Rad L (MLM) ers. Veery: 23 Apr (1) Nash (MLM) ers. Gray-cheeked Thrush: 22 Apr (1) Cheatham Co. (PGL) ers. Swainson's Thrush: 18 Apr (2) War Pk (PGL) ers. Hermit Thrush: 1 May (1) Overlk Dr. (PGL) Irs. American Pipit: 17 Apr (3) Coffee Co. (DLD). White-eyed Vireo: 14 Apr (1) Nash (PGL); (1) Cheatham Co. (TJW) ers. Yellow-throated Vireo: 10 Apr (1) Nash (PGL) ers.

Warbling Vireo: 11 Apr (1) Davidson Co. (MLM) ers. Philadelphia Vireo: 2 May (3) LBL (TJW). Red-eyed Vireo: 12 Apr (1) Rad L (MLM) ers. Blue-winged Warbler: 17 Apr (1) War Pk (PGL) ers. Tennessee Warbler: 11 Apr (1) War Pk (PGL), ers, new early date in Nash area. Orange-crowned Warbler: 18 Apr (1) War Pk (PGL). Nashville Warbler: 16 Apr (1) Rad L (PGL) ers. Northern Parula: 7 Apr (1) Rad L (PGL) ers; 10 Apr (1) Warren Co. (SNM). Yellow Warbler: 18 Apr (1) Davidson Co. (PGL) ers. Cape May Warbler: 27 Apr (3) Rutherford Co. (TJW); 2 May (1) Nash (PGL) Black-throated Green Warbler: 27 Mar (1) Putnam Co. (SJS, BHS), new early record there. Yellow-throated Warbler: 2 Apr (1) Rad L (MLM) ers; 10 Apr (1) Warren Co. (SNM). Pine Warbler: 25 Mar (1) Putnam Co. (CS, RWS). Palm Warbler: 10 Apr (1) Warren Co. (SNM); (1) War Pk (PGL) ers. Cerulean Warbler: 17 Apr (1) War Pk (PGL); 8 May (1) Putnam Co. (SJS); (1) Wilson Co. (KN). Black-and-white Warbler: 19 Mar (1) Nash (MLM) ers. Prothonotary Warbler: 10 Apr (2) Rad L (MLM) ers. Worm-eating Warbler: 18 Apr (1) War Pk (PGL) ers. Ovenbird: 13 Apr (1) Oaklands (TJW) ers. Connecticut Warbler: 5 May (1) Nash (MLM); 12 May (1) Rad L (TJW, Paul Harris, DMc); up to at least two birds present at Rad L over next week (m.ob.). Mourning Warbler: 12 May to 20 May (high count 7 on 19 May) Rad L (TJW, m.ob.). Hooded Warbler: 14 Apr (1) Nash (PGL) ers. Wilson's Warbler: 27 Apr (1) Rad L (MLM); 15 May (1) Nash (MLM). Yellow-breasted Chat: 13 Apr (1) Rad L (MLM) ers.

*Tanager-Siskin:* Summer Tanager: 10 Apr (1) War Pk (PGL) ers. Scarlet Tanager: 14 Apr (2) Nash (PGL) ers. Rose-breasted Grosbeak: 13 Apr (1) Rad L (MLM), earliest Nash area spring arrival (several winter records); 16-30 Apr (up to 25) Putnam Co. (RWS), many feeders reported birds this spring but a count of 25 males (RWS) on 30 Apr is exceptional. Indigo Bunting: 11 Apr (1) Rad L (MLM) ers; 13 Apr (1) Oaklands (TJW). Dickcissel: 8-22 May (1-4) Putnam Co. (DLC, SJS); 15 May-June (10-15), nesting in Rutherford Co. (TJW). Bachman's Sparrow; 15 May (1) Coffee Co. (DLD), singing on territory. Lark Sparrow: 11 Apr (1) Nash (LJK) found dead on lawn, migrant?; 15 May (3) found in suitable habitat, Wilson Co., numbers seem a bit down from prior years (TJW). Grasshopper Sparrow: 25 Apr-16 May (2) Warren Co. (SNM); Apr-May several populations located in Rutherford and Wilson Cos., numbers higher than usual for the region (TJW). Fox Sparrow: 21 Mar (2) War Pk (PGL); 27 Mar (1) Franklin Co. (PGL); 8 May (1) Putnam Co. (MAS), new county late date. Bobolink: 8 May (8) Putnam Co. (DLC). Rusty Blackbird: 4 Apr (40) Warren Co. (SNM). Orchard Oriole: 21 Apr (5) Putnam Co. (RWS), unusual on plateau. Northern Oriole: 25 Apr (1) Warren Co. (SNM). Purple Finch: 22 Mar (8) Putnam Co. (CS); 4-10 Apr (up to 6) Murfreesboro (TJW). Pine Siskin: 15-17 Apr (2) Murfreesboro (TJW); 8 May (1) Putnam Co. (BHS).

*Locations:* Burg Falls-Burgess Falls State Natural Area, Putnam Co.; Dav. Co.-Davidson Co.; Metro Ctr-Metro Center, Davidson Co.; Mon Pond-Monsanto Ponds, Maury Co.; Nash-Nashville, Davidson Co.; Oaklands-Oaklands Mansion, Murfreesboro, Rutherford Co.; Old Hick L-Old Hickory Lake, Sumner Co.; Rad L-Radnor Lake State Natural Area, Davidson Co.; War Pk-Warner Parks, Davidson Co.; Woods Res-Woods Reservoir, Franklin Co.

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CUMBERLAND PLATEAU / RIDGE AND VALLEY REGION — A single weather event dominated the season. The "Blizzard of '93" struck on 12-13 March with heavy snow and high winds. The Johnson City area received 15 inches and Chattanooga got about 20 inches. Deep drifts were common. While many spring snowfalls in this region are short-lived, this one was an exception. Significant snow cover remained in the Johnson City area until 19 March due to the lingering cold, where 1°F on 15 March was the coldest temperature ever recorded that late into the season. The deep snow paralyzed human activity for several days. The most visible impact of the storm was heavy damage to cedar and pine trees; broken limbs and treetops, plus uprooted conifers, were widespread. Some whole stands were devastated. Deciduous trees suffered surprisingly little damage. The immediate impact on birdlife must have been considerable, but was difficult to assess because of the impassable conditions. Most terrestrial food supplies were covered. Fox Sparrows and Red-winged Blackbirds swarmed to feeders, but other species continued in generally low numbers. In the Tri-Cities region, Carolina Wren and bluebird numbers dropped from the high figures of the last few years, but not below long-term averages. Early breeders (i.e., Killdeer, Woodcock, Mourning Dove, Horned Lark) surely lost all nests in progress. Fortunately, few migrants had arrived.

Late March through early April was cool and wet, delaying migration. A warming trend at Easter (11 April) allowed migrants to proceed. The latter half of the season was warmer and drier. Deciduous trees seemed to leaf-out suddenly then.

Overall, this was a sub-par birding season, except for two rarities, Clark's Grebe and Lesser Black-backed Gull. The grebe was possibly blown in by the blizzard. Most migrants were late and in low numbers. As the weather conditions improved, many transients apparently passed over without needing to stop.

*Loon-Heron:* Common Loon: 10 Apr (22) Chick L (RJH), max; 11 May (1) Aus Spr (FJA), lrs. Pied-billed Grebe: 20 Mar (pair building nest) Bra Lev (RJH). Horned Grebe: 20 Mar (11) Chick L (KHD, LHD), max; 29 Mar (10) Boone L (RLK). CLARK'S GREBE: 18-23 Mar (1) Nick L (Elizabeth Wolfe\*, MLB, m.ob.), first state record. Double-crested Cormorant: 29 Mar/19 Apr (9/4) Kpt (RLK); 8 Apr (18) Nick L (KHD, LHD); 10 Apr (28) Chick L (RJH). Great Blue Heron: aerial survey (12 Apr) of colonies along the Tenn. River reservoirs from Knoxville to South Pittsburg produced the following counts of active nests: Fort Loudoun L (146 nests/2 colonies), Watts Bar L (380/10), Chick L (725/15), Nick L (176/7), and 90 nests on Burns Is. below Nickajack Dam (Burline Pullin). Great Egret: 7 Apr (2) Boone L (JWN); 12 Apr (1) Bra Lev (Barbara McMahan); 15-20 Apr (2-3) Sav Bay (KHD, LHD); 21 Apr (1) Gray, Wash Co. (FJA). Snowy Egret: 26 Apr (1) Bra Lev (KC, DFV). Cattle Egret: 10 Apr (1) Hmtl Co. (RJH); 14 Apr (1) Chat (MLB); 14 May (1) Aus Spr (RLK, BLC, Glenn Swofford). Green Heron: 8 Apr (2) Sav Bay (KHD, LHD), lrs. Black-crowned Night-Heron: 30 Apr (20) Kpt (SMS), max there. Yellow-crowned Night-Heron: 14 Apr (2) Bra Lev (MLB); 11 May (1) Aus Spr (FJA).

*Duck-Rail:* Redhead: 15 Mar (10) Clear Creek L, Bristol (RM). Greater Scaup: 20 Mar (21) Chick L (KHD, LHD), max; 29 Mar (5) Kpt (RLK). Red-breasted Merganser: 29 Mar (190) Boone L (RLK), max; 15 May (3) Chick L (MLB), lrs. Ruddy Duck: 18 Mar (30) Nick L (MLB), max. Osprey: 29 Mar (nest begun) Long Is., Kpt (RLK), on

transmission line tower, nest destroyed 2 weeks later (RLK), pair rebuilt nearby, success unknown (Kristin Zimet). Red-tailed Hawk: 30 Mar (kettle of 8) Laurel Run Park, Hawkins Co. (Arthur Smith), part of poorly known spring hawk flight. Peregrine Falcon: 31 Mar (1 im) Sullivan Co. (Jane Fleenor). Virginia Rail: 11 May (1) Meadowview Marsh, Kpt (RLK); 11 May (2 pairs) Phipp's Bend, Hawkins Co. (RLK). Sora: 27 Mar (1) Chat (Chat TOS); 25 Apr (1) Bowmantown, Wash. Co. (PW, RLK), in newly acquired state wetland; 7 May (1) Amn Marsh (KC, DFV).

*Plover-Woodpecker:* Black-bellied Plover: 17 May (1) Ktn Stm P (TJW, CW). American Golden-Plover: 30 Mar (1) Ktn Stm P (MLB). Upland Sandpiper: 12 Apr (1) Chat (RJH); 9 May (1) UT Plant Science Farm, Blount Co. (James Brooks, Audrey Hoff). Sanderling: 17 May (3) Ktn Stm P (TJW, CW). Western Sandpiper: 9 May (1) Lst (TSM). White-rumped Sandpiper: 25 Apr (1) Telford, Wash. Co. (RLK); 14/17 May (3/6) Ktn Stm P (TJW, CW). Dunlin: 21-22 Mar (27-30) Sav Bay (KHD, LHD). American Woodcock: 11 May (1) Meadowview Marsh, Kpt (RLK). Bonaparte's Gull: 7-8 Mar (400) Chick L (RJH), max. Ring-billed Gull: 24 Mar (420) Boone L (RLK), max there. LESSER BLACK-BACKED GULL: 27 Feb-22 Mar (1 ad) Nick L (m.ob.), reported last season. Forster's Tern: 16 May (1) Boone L (RLK). Black-billed Cuckoo: 25 Apr (1) Lst (RLK, PW); 6 May (1) Jhn City (FJA); 6 May (1) Raccoon Mountain, Marion Co. (KC, DFV); 11 May (1) Phipp's Bend, Hawkins Co. (RLK). Barn Owl: 15 Mar (1) Sav Bay (KHD, LHD); 9 May (1) Hmlt Co. (KHD, LHD). Chimney Swift: 9 Apr (4) Kpt (SMS), ers. Ruby-throated Hummingbird: 2 Apr (1) Bra Lev (MLB), ers. Red-headed Woodpecker: 7 May (1) Jhn City (FJA); 11 May (1) Kpt (SMS), migrants.

*Flycatcher-Siskin:* Least Flycatcher: 14 May (1 b) Amn Marsh (DFV). Horned Lark: 17 Apr (3 singing males, plus 1 bird carrying nesting material) 6-7 miles east of Monterey, Putnam Co. (SJS). Tree Swallow: 1-2 pairs nesting at Aus Spr and apparently also at Phipp's Bend, Hawkins Co. (RLK). Common Raven: 7 Mar (1) Fall Branch, Wash. Co. (RLK). Ruby-crowned Kinglet: 12 May (1) Jhn City (RLK), lrs. Cedar Waxwing: 20 Mar (200) Hmlt Co. (RJH); winter scarcity in Tri-Cities area continued until early May (fide RLK). Warbling Vireo: 25 Apr (1) Lst (RLK); 30 Apr (1) Kpt (SMS); arrivals at breeding sites. Orange-crowned Warbler: 8 Apr (1) Chat (RJH); 26 Apr (1) Amn Marsh (KC, DFV). Yellow Warbler: 9 Apr (1) Kpt (SMS), ers. Cape May Warbler: 16 Apr (1) Chat (MLB), ers. Palm Warbler: 10 Mar (1) Hiwas R, Meigs Co. (KHD, LHD). Black-and-white Warbler: 2 Apr (1/1) Bra Lev/Jhn City (MLB/RLK), ers. Prothonotary Warbler: 15 Apr (1) Bowmantown, Wash. Co. (FJA), ers. Blue Grosbeak: 17 Apr (1) Marion Co. (MLB), ers. Vesper Sparrow: 5 Apr (15) Aus Spr (BLC), max. SHARP-TAILED SPARROW: 14 May (1) Aus Spr (RLK, BLC, Glenn Swofford), second local spring record. Fox Sparrow: mid-winter to 30 Mar (1 at feeder) Jhn City (RLK); during & shortly after the blizzard of 12-13 Mar, this species swarmed to regional feeders, with reports of 1-4 birds widespread around Tri-Cities, Knoxville, Chattanooga and elsewhere (m.ob.). Lincoln's Sparrow: 7 May (1) Amn Marsh (DFV). Purple Finch: after winter scarcity, influx during Mar-Apr, max 6 Apr (43) Kpt (SMS). Pine Siskin: 31 Mar (1) Chat (Barbara McMahan), only report.

*Locations:* Amn Marsh-Amnicola Marsh, Hamilton Co.; Aus Spr-Austin Springs, Washington Co.; Boone L-Boone Lake, Sullivan & Washington Cos.; Bra Lev-Brainerd Levee, Hamilton Co.; Chat-Chattanooga, Hamilton Co.; Chick L-Chicka-

mauga Lake, Hamilton Co. portion; Hmlt Co.-Hamilton Co.; Hiwas R-Hiwassee River area, primarily Meigs Co.; Jhn City-Johnson City, Washington Co.; Kpt-Kingsport, Sullivan Co.; Ktn Stm P-Kingston Steam Plant, Roane Co.; Lst-Limestone, Washington Co.; Nick L-Nickajack Lake, Marion Co.; Sav Bay-Savannah Bay, Hamilton Co.; Wash. Co.-Washington Co.

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EASTERN MOUNTAIN REGION — Precipitation was over an inch below normal for the period. A good amount of the precipitation came on one day in what the media referred to as the "blizzard of the century." On March 13, this blizzard brought 1.5 to 3 feet of snow throughout the mountain region.

*Loon-Woodcock*: Common Loon: 22 Mar-25 Apr (1-2) Wat L (RLK, TSM). Horned Grebe: 22 Mar (5) Wat L (RLK); 9 Apr (1) S Hol L (JWC). Double-crested Cormorant: 8/25 Apr (6/4) S Hol L (JWC). American Bittern: 25 Apr (1) Shady Valley, Johnson Co. (JWC, JS). Great Egret: 24 Mar-5 Apr (1) Elizabethton, Carter Co. (GOW); 4 Apr (1) Wat L (RLK); 26 Apr (1) Roan Mountain village, Carter Co. (Cathi Sullins); early May (1) S Hol L (RPL). Black-crowned Night-Heron: 30 Apr (1) Buffalo Valley, Unicoi Co. (FJA, RM); 25 Apr (1) Mountain City, Johnson Co. (TSM). Yellow-crowned Night-Heron: 21 Mar (2) Sycamore Shoals State Park, Carter Co. (David Blatchly), ers; 2 pairs nesting at this site, 1 pair nesting at Hunter Swamp, Carter Co. Snow Goose: 2 Apr (7 white) S Hol L (BLC). Greater Scaup: 7 Mar (2) Wilbur L, Carter Co. (TSM). Red-breasted Merganser: 8 May (1) Wat L (James Brooks). Black Vulture: 1 Apr (2) Erwin, Unicoi Co. (RLK); 10 Apr (2) Elizabethton (GOW); 9 May (1) Nolichucky River, Unicoi Co. (RLK). Osprey: 4 Apr (1) S Hol L (JWC), ers; 30 May (1) Wat L (PW), Irs. Sharp-shinned Hawk: 7 reports. Cooper's Hawk: 7 reports. Red-shouldered Hawk: 7-8 Mar (1) Unicoi Co. (PW). Golden Eagle: 6 Mar (1 ad) Shady Valley, Johnson Co. (JS). Peregrine Falcon: 4 Mar (1 im) Erwin, Unicoi Co. (FJA, RM). Greater Yellowlegs: 21 Apr/2 May (1) Wat R (TSM, FJA). Lesser Yellowlegs: 7 May (1) Wat R (TSM). Common Snipe: 2 Apr (14) Wat R (Frank Ward), max. American Woodcock: 9 Mar (1 calling) Mil Col (RM); 16 May (1 seen) Mil Col (RLK).

*Gull-Waxwing*: Ring-billed Gull: 4 Apr (24) Wat L (RLK), max. Caspian Tern: 25 Apr (1) S Hol L (JWC). Barn Owl: 3 Mar (1 dead) S Hol L (RPL); 9 Mar (1) Mil Col (GOW). Northern Saw-whet Owl: 6 May (4) Roan Mtn (Mark Barb); 6 May (4) Unaka Mtn (RM); ers and max. Ruby-throated Hummingbird: 16 Apr (1) Mil Col (FJA), ers. Red-headed Woodpecker: 2 May (1) Simmerly Creek, Carter Co. (TSM); 5 May (1) Erwin, Unicoi Co. (PW). Yellow-bellied Sapsucker: 7 May (1) Roan Mtn (TSM), Irs. Willow Flycatcher: 8 May (1) Hampton, Carter Co. (TSM), ers. Alder Flycatcher: 14 May (1) Hampton Creek, near Roan Mtn (FJA, JWN), low elevation. Least Flycatcher: 7 May (16) Roan Mtn (TSM), max. Eastern Kingbird: 12 Apr (1) Elizabethton (TSM), ers. Bank Swallow: 2 Apr (6) S Hol L (BLC), early. Cliff Swallow: 2 Apr (1) S Hol L (BLC), early. Common Raven: 14 Mar (1) Hampton, Carter Co. (TSM); 7 Apr (2) Doe River Gorge, Carter Co. (RLK); 8/12 Apr (1) Unicoi, Unicoi Co. (FJA/RLK). Red-breasted Nuthatch: small numbers on Unaka Mtn (RM). Brown Creeper: 4 Apr (7 in one tree) Buffalo Mtn, Wash. Co. (TSM). Gray-cheeked Thrush: 13 May (1) Unaka Mtn (JWN), only report. Swainson's Thrush: very few reports. Cedar Waxwing: scattered pairs in May after complete absence since late Dec.

*Warbler-Grosbeak:* Golden-winged Warbler: 7 May (5) Roan Mtn (TSM), max. Magnolia Warbler: by 10 May (7-10 on territory) Unaka Mtn (RM). Pine Warbler: 11 Apr/22 May (1) Buffalo Mtn (JWN). Prothonotary Warbler: 25 Apr (1) Fishery Park, Unicoi Co. (BLC, Shirley Wayland). Worm-eating Warbler: 8 Apr (1) Unicoi Co. (GOW), ers. Swainson's Warbler: 26 May (1) Unaka Mtn (JWN). Chipping Sparrow: 13 Mar (3) Hampton, Carter Co. (TSM), at feeder during blizzard. Field Sparrow: 7 May (1) Carver's Gap, Roan Mtn (TSM), high elev. Grasshopper Sparrow: 18 Apr (1) Unicoi Co. (JWN), ers. Fox Sparrow: 13 Mar (5 at feeder) Hampton, Carter Co. (TSM), during blizzard; 3 Apr (1) Unaka Mtn (RM), lrs. Swamp Sparrow: 9 May (2) Butler, Johnson Co. (TSM), lrs. Bobolink: 9 May (7) Siam Valley, Carter Co. (FJA). Rusty Blackbird: 22 Mar (3) Wat R (RLK), only report. Orchard Oriole: 12 Apr (1) Hampton, Carter Co. (TSM), ers. Red Crossbill: 7 May (5) Unaka Mtn (RM). Pine Siskin: 14 Mar (1) Elizabethton (GOW); 31 Mar (2) Hampton, Carter Co. (TSM); 24-28 Apr (10-12) Hampton, Carter Co. (TSM); only reports. Evening Grosbeak: none.

*Locations:* Mil Col-Milligan College, Carter Co.; Roan Mtn-Roan Mountain, Carter Co.; SHol L-South Holston Lake, Sullivan Co.; Unaka Mtn-Unaka Mountain, Unicoi Co.; Wat L-Watauga Lake, Carter and Johnson Cos.; Wat R-Watauga River, Carter Co.

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*Observers*

FJA	- Fred J. Alsop	RM	- Rad Mayfield
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CJB	- Carol J. Brown	OKM	- O. Knox Martin
MLB	- Mary Lynn Buttram	SNM	- Susan N. McWhirter
KC	- Kevin Calhoon	DoM	- Dollyann Myers
BBC	- Ben B. Coffey, Jr.	KN	- Kay Norris
BLC	- Brian L. Cross	JWN	- Jerry W. Nagel
DLC	- Daniel L. Combs	GRP	- George R. Payne
JWC	- J. Wallace Coffey	JBP	- Jeanne B. Payne
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HBD	- Helen B. Dinkelspiel	CS	- Candy Swan
KHD	- Kenneth H. Dubke	JS	- John Shumate
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MAG	- Mark A. Greene	SJS	- Stephen W. Stedman
MLG	- Murray L. Gardler	SMS	- Stan M. Strickland
RDH	- Ron D. Hoff	DFV	- David F. Vogt
RJH	- R. John Henderson	CW	- Caryl Witt
LJK	- Lee J. Kramer	GOW	- Gary O. Wallace
RLK	- Richard L. Knight	DLW	- Dick L. Whittington
PGL	- P. Galen Lenhert	MGW	- Martha G. Waldron
RPL	- Richard P. Lewis	PW	- Pete Wyatt
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TSM	- Tom S. McNeil		

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

**SUBMISSIONS:** The original and, if feasible, two copies of the manuscript should be sent to the Editor: J. Wallace Coffey, 100 Bellebrook Dr., Bristol, TN 37620. Manuscripts that have been published in other journals should not be submitted.

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

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### NOTICE TO RESEARCHERS

Several references in this issue include dates later than the cover date of September 1993. The journal is behind schedule and it has been necessary to use material which, in some cases, was submitted and accepted later in the year.