

night to near 100° F. during the afternoon. A prairie storm with strong north winds blew in about dusk on 31 August and the frigatebird disappeared. Several Tulsa birders searched thoroughly for it during the next few days, but without success.

We have recently come upon a line drawing in Murphy (*op. cit.*, p. 923) of a "young female" *magnificens* that the bird in our photograph resembles so closely that we would be tempted to say that the Salt Plains bird was surely of that species but for the fact that no one seems to have made clear how young female *minor* of the same age and plumage stage look.

2117 S. DEWEY, BARTLESVILLE, OKLAHOMA 74003, 7 APRIL 1982.

THE COWETA TV TOWER KILL

BY JAMES L. NORMAN

During five consecutive fall seasons (1974-78), my wife Marion and I made a point of collecting the birds that killed themselves flying into the TV tower 2 miles north of Coweta, Wagoner County, northeastern Oklahoma. Personnel at the tower helped greatly with the project by notifying us whenever birds had struck the tower. Predators, most of them probably nocturnal, consumed some carcasses on the spot or carried them off. Ants badly mutilated some of them. Most remains were, however, quite identifiable. The most valuable specimens — e.g., one of the Yellow Rails (*Coturnicops noveboracensis*), ten of the Philadelphia Vireos (*Vireo philadelphicus*), the one Golden-winged Warbler (*Vermivora chrysoptera*), and the one Sharp-tailed Sparrow (*Ammospiza caudacuta*) — were preserved as skins, and most of the others as skeletons. The 41 species found in 1974 were reported on formally the following year (Norman, 1975, Bull. Oklahoma Orn. Soc. 8:25-27). The 27 species found in 1975 were reported on in 1976 (Norman, 1976, Bull. Oklahoma Orn. Soc. 9:20). The 47 species found in 1976 were reported on in 1977 (Norman, 1977, Bull. Oklahoma Orn. Soc. 10:6-8). The 29 species found in 1977 and the 41 species found in 1978 have not heretofore been reported on anywhere. For the numbers of all species found during the five-year period, see Table I.

Virtually all of the birds found dead or crippled had hit the tower at night. A very few, however, may not have. The Carolina Wren (*Thryothorus ludovicianus*) is believed to be strictly non-migratory, hence the two individuals of that species found may well have struck the tower during territorial chasing. The Common Flicker (*Colaptes auratus*) is known to migrate by day, sometimes in spectacular numbers (see Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, pp. 299-300). The fact that four Red-headed Woodpeckers (*Melanerpes erythrocephalus*) were picked up on one morning in 1976 strongly suggests, however, that some woodpecker migration takes place at night, while the fact that no resident species such as the Red-bellied Woodpecker (*M. carolinus*), Hairy Woodpecker (*Picoides villosus*), or Downy Woodpecker (*P. pubescens*) were found supports the sus-

TABLE I

Birds Found Dead in Fall under TV Tower near Coweta, Oklahoma 1974-1978

Species	1974	1975	1976	1977	1978	Total
Pied-billed Grebe (<i>Podilymbus podiceps</i>)	1	2	2	1	1	7
Ring-necked Duck (<i>Aythya collaris</i>)			1			1
Virginia Rail (<i>Rallus limicola</i>)	1				1	2
Sora (<i>Porzana carolina</i>)	1		7		4	12
Yellow Rail (<i>Coturnicops noveboracensis</i>)			2			2
American Coot (<i>Fulica americana</i>)			2	3		5
Common Snipe (<i>Capella gallinago</i>)		1				1
Mourning Dove (<i>Zenaidura macroura</i>)			2	1		3
Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)		1	3	4	3	11
Black-billed Cuckoo (<i>Coccyzus erythrophthalmus</i>)		1				1
Common Nighthawk (<i>Chordeiles minor</i>)				1		1
Chimney Swift (<i>Chaetura pelagica</i>)				1		1
Common Flicker (<i>Colaptes auratus</i>)	1		2		1	4
Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>)			4		1	5
Yellow-bellied Sapsucker (<i>Sphyrapicus varius</i>)	1			1		2
Eastern Kingbird (<i>Tyrannus tyrannus</i>)		1			6	7
Yellow-bellied Flycatcher (<i>Empidonax flaviventris</i>)		1				1
Alder Flycatcher (<i>Empidonax alnorum</i>)					1	1
Least Flycatcher (<i>Empidonax minimus</i>)				1		1
Eastern Wood Pewee (<i>Contopus virens</i>)			1			1
Brown Creeper (<i>Certhia familiaris</i>)	5		3	1		9
House Wren (<i>Troglodytes aedon</i>)	20	2	3		2	27
Winter Wren (<i>Troglodytes troglodytes</i>)	5		2	1		8
Carolina Wren (<i>Thryothorus ludovicianus</i>)			2			2
Long-billed Marsh Wren (<i>Cistothorus palustris</i>)	3		3		1	7
Short-billed Marsh Wren (<i>Cistothorus platensis</i>)	7		1	3		11
Mockingbird (<i>Mimus polyglottos</i>)					2	2
Gray Catbird (<i>Dumetella carolinensis</i>)	1	7	14	5	5	32
Brown Thrasher (<i>Toxostoma rufum</i>)			6		2	8
Swainson's Thrush (<i>Catharus usulatus</i>)	1	2	3		3	9
Golden-crowned Kinglet (<i>Regulus satrapa</i>)	1		4	5		10
Ruby-crowned Kinglet (<i>Regulus calendula</i>)	15	3	16	4	2	40
White-eyed Vireo (<i>Vireo griseus</i>)			1			1
Solitary Vireo (<i>Vireo solitarius</i>)	11		2		3	16
Red-eyed Vireo (<i>Vireo olivaceus</i>)	17	9	12	3	31	72
Philadelphia Vireo (<i>Vireo philadelphicus</i>)	6	2	7		9	24
Warbling Vireo (<i>Vireo gilvus</i>)	3	2			7	12
Black-and-white Warbler (<i>Mniotilta varia</i>)	1	13	4	1	15	34
Golden-winged Warbler (<i>Vermivora chrysoptera</i>)	1					1
Tennessee Warbler (<i>Vermivora peregrina</i>)	1					1
Orange-crowned Warbler (<i>Vermivora celata</i>)	14		4		2	20
Nashville Warbler (<i>Vermivora ruficapilla</i>)	64	1	7		31	103
Northern Parula Warbler (<i>Parula americana</i>)	1				1	2
Yellow Warbler (<i>Dendroica petechia</i>)	5	2			2	9
Magnolia Warbler (<i>Dendroica magnolia</i>)	1				3	4
Yellow-rumped Warbler (<i>Dendroica coronata</i>)			9	3		12
Black-throated Green Warbler (<i>Dendroica virens</i>)	4			1	2	7
Blackburnian Warbler (<i>Dendroica fusca</i>)	1					1
Chestnut-sided Warbler (<i>Dendroica pensylvanica</i>)	1		1		2	4
Bay-breasted Warbler (<i>Dendroica castanea</i>)			1		10	11
Ovenbird (<i>Seiurus aurocapillus</i>)	4	1	1	1	8	15
Northern Waterthrush (<i>Seiurus noveboracensis</i>)		3			1	4
Kentucky Warbler (<i>Oporornis formosus</i>)					1	1
Mourning Warbler (<i>Oporornis philadelphia</i>)	4	10	1		6	21

Common Yellowthroat (<i>Geothlypis trichas</i>)	8	1	5	14
Yellow-breasted Chat (<i>Icteria virens</i>)			1	1
Wilson's Warbler (<i>Wilsonia pusilla</i>)	5	3	2	6
Canada Warbler (<i>Wilsonia canadensis</i>)	1	3		1
American Redstart (<i>Setophaga ruticilla</i>)		1	1	2
Bobolink (<i>Dolichonyx oryzivorus</i>)		3	1	4
Eastern Meadowlark (<i>Sturnella magna</i>)	1		5	6
Western Meadowlark (<i>Sturnella neglecta</i>)			1	1
Northern Oriole (<i>Icterus galbula</i>)		6	1	8
Common Grackle (<i>Quiscalus quiscula</i>)			2	2
Brown-headed Cowbird (<i>Molothrus ater</i>)			1	1
Indigo Bunting (<i>Passerina cyanea</i>)	4			4
Dickcissel (<i>Spiza americana</i>)	1	7		1
Pine Siskin (<i>Spinus pinus</i>)			1	1
Savannah Sparrow (<i>Passerculus sandwichensis</i>)			7	15
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)		1	1	2
Sharp-tailed Sparrow (<i>Ammospiza caudacuta</i>)	1			1
Le Conte's Sparrow (<i>Ammospiza leconteii</i>)			10	6
Dark-eyed Junco (<i>Junco hyemalis</i>)			4	26
Clay-colored Sparrow (<i>Spizella pallida</i>)	2			2
Field Sparrow (<i>Spizella pusilla</i>)				1
White-crowned Sparrow (<i>Zonotrichia leucophrys</i>)			1	1
White-throated Sparrow (<i>Zonotrichia albicollis</i>)			3	2
Fox Sparrow (<i>Passerella iliaca</i>)				1
Lincoln's Sparrow (<i>Melospiza lincolni</i>)	4		1	3
Swamp Sparrow (<i>Melospiza georgiana</i>)	1		5	3
Song Sparrow (<i>Melospiza melodia</i>)			1	4

picion that the flicker was, indeed, killed at night.

Only five species — the Gray Catbird (*Dumetella carolinensis*), Ruby-crowned Kinglet (*Regulus calendula*), Red-eyed Vireo (*Vireo olivaceus*), Black-and-white Warbler (*Mniotilta varia*) and Ovenbird (*Seiurus aurocapillus*) — were picked up during all five seasons. Found during four seasons of the five were the Yellow-billed Cuckoo (*Coccyzus americanus*), House Wren (*Troglodytes aedon*), Swainson's Thrush (*Catharus ustulatus*), Philadelphia Vireo, Nashville Warbler (*Vermivora ruficapilla*), Mourning Warbler (*Oporornis philadelphia*) and Wilson's Warbler (*Wilsonia pusilla*). One of these seven "repeaters" was the Philadelphia Vireo, a species considered very rare in Oklahoma, especially in the fall, before my co-workers and I started finding specimens under the tower (see Sutton, 1974, Checklist of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, p. 34, and Williams, 1968, Audubon Field Notes 22:59).

Of special interest are the two Yellow Rails (one now a skin, the other a skeleton) found in 1976. The only other specimen for the state is one taken in 1842 at Old Fort Wayne in Delaware County, about 70 miles northeast of Coweta (see Tomer, 1959, Auk 76:94-95). The Golden-winged Warbler found in 1974 was the first specimen of its species for the state. The Bay-breasted Warblers (*Dendroica castanea*) found in 1976 and 1978 were the first fall specimens for the state. The Sharp-tailed Sparrow found in 1974 was the fifth specimen for the state.

The species found in greatest numbers was the Nashville Warbler, as-

surely one of the commonest of Oklahoma's transient parulids. No other species found during the period was killed in such numbers, though the Red-eyed Vireo (72 specimens) and Ruby-crowned Kinglet (40 specimens) were well represented.

Why some species were *not* found is puzzling. Harris's Sparrow (*Zonotrichia querula*) is an abundant winter visitant in central Oklahoma and it is not really rare at that season anywhere in Oklahoma except in the Panhandle. The Prairie Warbler (*Dendroica discolor*), Scarlet Tanager (*Piranga olivacea*), Summer Tanager (*P. rubra*), Blue Grosbeak (*Guiraca caerulea*), and Painted Bunting (*Passerina ciris*) all nest in eastern Oklahoma, yet not one specimen representing these species was found. One is tempted to guess that some of the above-named birds move southward by day more than has previously been believed. Careful work at other TV towers in the state needs to be done.

502 N. 14th STREET, MUSKOGEE, OKLAHOMA 74401. 22 MARCH 1980.

LIFE AND DEATH OF A HERONRY

BY ROBERT A. CARL

In the summer of 1981 I witnessed the beginning and the end of a small colony of Little Blue Herons (*Florida caerulea*) and Cattle Egrets (*Bubulcus ibis*) that bred in a stand of young black locust trees about 100 yards from the house in which I live near Tecumseh, Pottawatomie County, central Oklahoma. The attempt of the colony to rear young was 100% unsuccessful.

The colony started as a roost. On the evening of 8 May I saw a small flock of adult Little Blue Herons flying into the trees. They spent the night there. From 8 to 15 May the flock, which came each evening, became gradually larger, eventually including a few piebald immature birds. On 17 May a company of Cattle Egrets joined the Little Blues. On 25 May I counted about 125 Little Blues, most of them adult, and 45 Cattle Egrets at the roost. The two species arrived in separate groups, each group of about 15 birds, but mingled once they had alighted.

The coming of the herons surprised me, for about 350 Great-tailed Grackles (*Quiscalus mexicanus*) were nesting in the locusts and masses of Starlings (*Sturnus vulgaris*) and Brown-headed Cowbirds (*Molothrus ater*) were roosting in trees close by. While obtaining permission from the landowner to watch the herons, I learned that great numbers of "blackbirds" had been roosting there for years, but that the herons were newcomers. After receiving permission, I was able to observe the herons at a distance of about 60 feet from my vehicle. The vehicle's presence did not seem to alarm them.

While the Great-tailed Grackles were in the locust grove they spent all of their time in the very tops of the trees. They occasionally chased the herons and egrets as the larger birds were attempting to alight. On 27 May I observed that the heron and egret activity was all below the canopy. The birds visited neighboring trees (oaks, green ash, pecans) that day, returning with dead