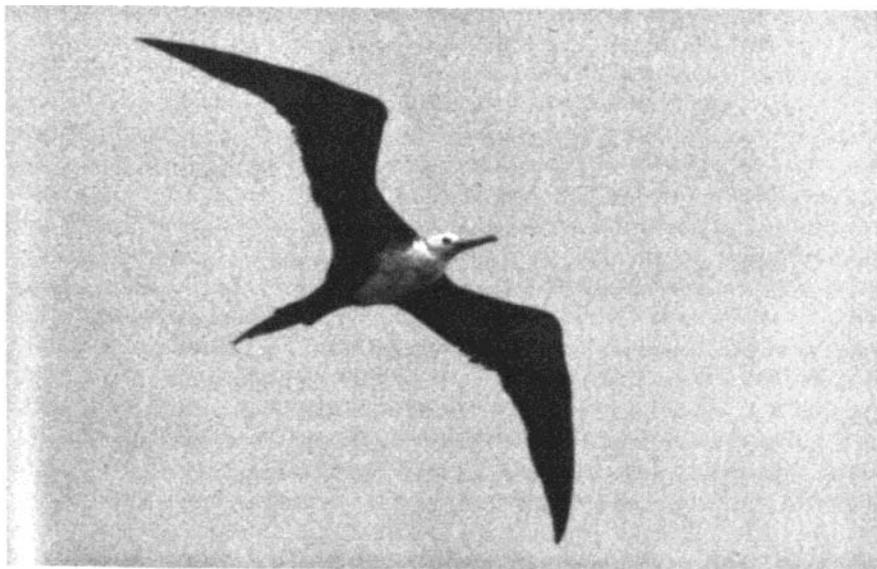


A FRIGATEBIRD AT THE GREAT SALT PLAINS

BY HOWARD W. GOARD AND DOTTY M. GOARD

The Magnificent Frigatebird (*Fregata magnificens*), a species found on the "Atlantic and Pacific coasts of America . . . breeding on the Pacific side from the Gulf of Guayaquil, Ecuador, to Central America . . . and on the Atlantic side from the vicinity of Rio de Janeiro, Brazil to Florida and the Bahamas . . ." (Murphy, 1936, *Oceanic birds of South America*, Am. Mus. Nat. Hist., New York 2:928), is known to occur regularly along the coast of southern Florida the year round, though it has never been found nesting there, and irregularly along the United States coast of the Gulf of Mexico in summer and fall (Palmer, 1962, *Handb. North American birds*, Yale Univ. Press, New Haven, Connecticut 1:371). It is sometimes seen far inland, particularly after storms. It has heretofore been reported from Oklahoma four times: on 12 August 1933, one taken in Woods County near Alva; on 18 April 1936, one found crippled near Anadarko, Caddo County;



FRIGATEBIRD

Photographed on 31 August 1980 by Howard W. Goard at the Salt Plains National Wildlife Refuge in north-central Oklahoma. The bird was probably an immature female Magnificent Frigatebird, a species known to visit the Gulf of Mexico from time to time.

on 29 September 1956, one seen on Lake Murray presumably near Ardmore; on 6 June 1965, one seen on Lake Texoma near Willis, Marshall County (Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 23). The 12 August 1933 and 18 April 1936 specimens were too large for the Giant Frigatebird (*F. minor*), a species similar to *F. magnificens* but smaller, that has, in the opinion of George M. Sutton, been taken once in Oklahoma — an adult male found exhausted in Perry, Noble County, on 3 November 1975 (see Heller and Barclay, 1977, Bull. Oklahoma Orn. Soc. 10:9-10). *Minor* and *magnificens* both breed on the Galápagos Archipelago off the coast of Ecuador. Whether the birds seen in Oklahoma on 29 September 1956 and 6 June 1965 were *magnificens* or *minor* can never be settled finally, but the chances are good that they were *magnificens* since that species is known to visit the Gulf of Mexico occasionally whereas *minor* is not, and the Gulf of Mexico is less than half as far removed from Oklahoma as the closest point to ocean on the Pacific side.

The sixth frigatebird for the state, one seen on 30 and 31 August 1980 at the main reservoir (impounded Salt Fork of the Arkansas River) on the Salt Plains National Wildlife Refuge in Alfalfa County, north-central Oklahoma, was reported by J. L. Norman and D. Vannoy (1981, Amer. Birds 35:198), though several other persons, including us, saw it. Quite possibly it was blown inland from the Gulf of Mexico coast by Hurricane Allen, which struck southern Texas on 10 August. Certain important details, given below, should be part of the record.

At about 0900 on 30 August, as we were walking near Cottonwood Point just west of the big reservoir's dam, the shadow of a large bird suddenly passed over us. Looking up, we were startled to see a frigatebird, a bird familiar to us from our visits to southern Florida, soaring directly overhead. It was obviously not an adult male for its head, neck, breast, and belly were largely white. Dusky markings on the white of the underparts suggested that its plumage was in a state of transition (Bent, 1922, U.S. Natl. Mus. Bull. 121, p. 310; Palmer, *op. cit.*, p. 368). That it was molting was obvious because the tail was not deeply furcate, its outer rectrices being short. Its long, hooked bill was light grayish blue. We could not see its feet, which always seemed to be drawn up into the belly plumage.

We watched the bird cruise the reservoir's shoreline for two days. Most of the time it was about 100 feet above the water, but occasionally it was much higher than that and over land rather than water. Never did we see it flap its wings, nor did we see it eating anything. Seeing fish in the reservoir's turbid water would have been difficult, if not impossible. Food might, we thought, be obtainable through harassing the many Ring-billed Gulls (*Larus delawarensis*), Franklin's Gulls (*L. pipixcan*), Forster's Terns (*Sterna forsteri*) or Black Terns (*Chlidonias niger*) that were present, but we never saw it near any of these birds.

Temperatures that Labor Day weekend ranged from about 70° F. at

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	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

sticks carried in their bills. On 3 June I again observed that the herons avoided the canopy, centering their activities below it. The grackles, on the other hand, stayed in the upper parts of the trees where their nests were.

High southerly winds, with gusts in excess of 20 miles per hour, prevailed during the first half of June. When I entered the locust grove on 14 June the wind was very strong. On seeing me, the grackles sounded their alarm and the herons that were on nests left hurriedly. All of the heron nests were well down from the treetops. In several trees that held both heron and grackle nests, the grackle nests were invariably higher than those of the herons. The trees were so slender that they did not afford much support for the nests when the wind was high. The shallow stick platforms that the herons had built were especially vulnerable. When my coming caused the herons to leave, I realized that the wind was bending the trees over so violently that the eggs were rolling from the nests and falling to the ground. I left the grove immediately when I saw what was happening.

By 23 June the wind had subsided. Once again the grackles' alarm cries made it impossible for me to enter the grove without disturbing the herons. When two of the herons that were on nests saw me they flew off. I counted 24 shallow platform nests that day, all well below the canopy. I did not climb to any of them, but four whose contents I could see from the ground held a total of nine nestlings, all recently hatched. I could not, of course, be sure which nests were those of the Little Blue and which of the Cattle Egret. Three thin-bottomed nests that I could see through held eggs, though I could not count the eggs from where I stood. The ground under the nests was virtually carpeted with broken pale blue eggs.

I returned to the rookery on 27 June. I was alarmed when I realized that the nests that had held young on the 23rd were now empty. I climbed to one nest (about 12 feet up) and found three eggs in it but saw no sign of an incubating bird. In the trees were many young grackles out of nests but none quite capable of flight. The parent grackles were noisy and aggressive.

I returned on 28 June and again on 30 June, but saw no sign of young herons in any of the nests. On 30 June I climbed again to the nest that had held three eggs on the 27th. The eggs were gone. From 25 June to the end of the month, fewer and fewer herons frequented the locust grove. On 1 July no heron of either species flew in to the stand of locust trees.

ROUTE 4, BOX 453, TECUMSEH, OKLAHOMA 74873, 15 MARCH 1982.

GENERAL NOTES

Eight Mallard broods in Cimarron County, Oklahoma, one date, one locality. — On 13 June 1980, on the largest of several sewage ponds 1 mile northeast of Boise City, Cimarron County, far western Oklahoma, I saw eight hen Mallards (*Anas platyrhynchos*) and carefully counted their chicks. Broods of 1, 2, 2, 4, 5, 6, 9, and 11, a total of 40 chicks, all of them quite small, were in sight at one time from one position. At the ponds I saw

also several adult Ruddy Ducks (*Oxyura jamaicensis*), Redheads (*Aythya americana*), and Blue-winged Teal (*Anas discors*), none of them with chicks.

The above paragraph suggests that ponds of this sort, where the water-level fluctuates only a little and where animal food for the chicks is abundant, are valuable as breeding areas for waterfowl even with a minimum of "game management." — John S. Shackford, Rt. 1, Box 125, Oklahoma City, Oklahoma 73111, 23 June 1980.

First nest of Whip-poor-will for Oklahoma.—On 21 May 1980, while conducting a census of the birds present on a long-abandoned strip-mine 3.2 kilometers (2 miles) east of Henryetta, Okmulgee County, east-central Oklahoma, I flushed a female Whip-poor-will (*Caprimulgus vociferus*) from her nest. The nest, a mere depression in dead oak leaves, was directly under a sapling about 2 meters (6 feet) high and contained two eggs. I collected the bird, whose skeleton and spread wing (UOMZ 16381) are preserved at the University of Oklahoma. The eggs were "quite fresh," according to George M. Sutton, who prepared them as specimens. During my brief stay (about 24 hours) in the area I neither saw nor heard another Whip-poor-will.

The strip-mine was abandoned more than 50 years ago, but the long spoil-banks are clearly visible. Some of these are heavily wooded, but the Whip-poor-will nest was in a comparatively open area throughout which small trees are scattered on the ridges and in the depressions. Some parts of the mine have almost no woody vegetation today. The ridges in the vicinity of the nest-site rise only 2 to 4 meters (6 to 12 feet) above the depressions although in other parts of the mine the relief is much greater.

According to Sutton (1974, A check-list of Oklahoma Birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 22) neither eggs nor young of the Whip-poor-will have heretofore been found in Oklahoma despite considerable search in areas where the species has been known to occur in summer.—D. Scott Wood, Carnegie Museum of Natural History, Pittsburgh, Pennsylvania 15213, 1 May 1982.

FROM THE EDITOR: Our thanks to Warren D. Harden for the time he took searching through the literature for a discussion of the plumages of the Giant Frigatebird (*Fregata minor*) and to Lawrence Curtis, Director of the Oklahoma City Zoo, for ascertaining through correspondence with thirty-some zoo directors and wildfowl breeders of the area that the Garganey (*Anas querquedula*) reported in the June issue of the Bulletin was not an "escape".—Jack D. Tyler.

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