

## Average Arrival and Departure Dates for Some Breeding Birds in Southwestern Oklahoma 1938-92

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Long-term records from specific localities can yield accurate average arrival and departure dates for migratory birds. More difficult to determine are those in Fall, because of postnuptial quiescence. These dates are subject to slight variation annually, being influenced by frontal movements, winds, precipitation, and other atmospheric phenomena. Information of this type is rarely available except on a state-wide or regional basis. Most natural areas, parks, and wildlife refuges maintain avian species lists that designate seasonal and numerical status, but these do not include actual dates of arrival and departure, and are seldom based on records spanning more than a few years. For Oklahoma species, Sutton (1) recorded arrival and departure dates for migrants throughout Oklahoma between 1952 and 1982. Most of this information, plus that available in the literature, was incorporated into his book *Oklahoma Birds* (2), in which he gave the earliest date a species had been recorded in Spring and the latest during Fall. In 1974, Sutton updated this information (3). For southwestern Oklahoma, the same type of data were made available by the author in *Birds of Southwestern Oklahoma*, published in 1979 (4). These data, however, include periods of time when the species may be present and do not indicate average arrival or departure dates for specific regions or even localities of the state.

Since 1967, I have recorded arrival and departure dates for the 23 species listed in Table 1 (5). In addition, I obtained dates from members of the Stephens County Audubon Society, personnel at the Wichita Mountains Wildlife Refuge (including field notes of biologist Authur F. Halloran from 1954 to 1968 and a few others as early as 1938), area amateur ornithologists, Sutton (1), and published literature.

Average dates of arrival and departure were calculated by assigning consecutive numbers to each day of every month for which there were records. For example, if arrival dates ranged from March 20 to April 5, consecutive numbers for the April dates would be 32 through 36 (31 days in March plus five next higher numbers in April). First dates for all years were totalled and divided by the number of years to obtain averages. Standard deviations were then calculated.

Data are presented for five species of herons, four flycatchers, four emberizids, three falconiforms, three swallows, two goatsuckers, one cuckoo, and one swift. The greatest span of arrival records, 41 years, is for the Turkey Vulture, followed by 39 for the Scissor-tailed Flycatcher, 28 for the Great Crested Flycatcher, and at least 17 years for 13 other species. The largest number of Fall dates [24] is for the Scissortail, with 21 for the Chimney Swift and 20 each for the Common Nighthawk and Purple Martin. For six species, fewer than five reliable records were available; therefore, average departure dates were omitted.

### REFERENCES

1. Sutton, G. M., Species Summaries of Oklahoma Bird Records. Oklahoma Mus. Nat. Hist., Univ. Oklahoma, Norman [1982].
2. Sutton, G. M., *Oklahoma Birds*. Univ. Oklahoma Press, Norman (1967).
3. Sutton, G. M., A Check-list of Oklahoma Birds. Contrib. Stovall Mus. Sci. & Hist. No. 1, Univ. Oklahoma, Norman (1974).
4. Tyler, J. D., *Birds of Southwestern Oklahoma*. Contrib. Stovall Mus. Sci. & Hist. No. 2, Univ. Oklahoma, Norman (1979).
5. Tyler, J. D., Personal field records (1967-92)

TABLE 1. Average arrival/departure dates for some breeding birds in southwestern Oklahoma, 1938-1992

Species <sup>a</sup>	Arrival			Departure		
	No. of yrs	Av. Date(sd)	Extremes	No. of yrs	Av. Date(sd)	Extremes
Great Egret	19(1969-92)	4/05(8)	3/23-4/18	11(1970-92)	10/16(11)	09/30-11/04
Snowy Egret	07(1974-92)	4/13(9)	4/01-4/24	05(1972-89)	10/05(8)	09/29-10/19
Little Blue Heron	16(1970-92)	4/07(8)	3/25-4/22	06(1972-91)	10/16(14)	10/08-11/13
Cattle Egret	14(1974-92)	4/02(11)	3/03-4/15	05(1971-91)	10/22(14)	10/06-11/09
Green Heron	15(1970-92)	4/13(5)	4/06-4/21	05(1972-82)	10/17(25)	09/25-11/25
Turkey Vulture	41(1938-92)	2/24(16)	1/12-3/11	14(1968-91)	10/26(12)	10/08-11/21
Mississippi Kite	23(1970-92)	4/23(12)	3/15-5/08	13(1970-91)	09/25(10)	09/11-10/17
Swainson's Hawk	26(1967-92)	4/04(9)	3/21-4/23	12(1972-92)	10/13(15)	09/29-11/14
Yellow-billed Cuc	12(1971-92)	5/03(5)	4/26-5/16			
Common N-hawk	24(1967-92)	4/21(11)	3/26-5/07	20(1970-92)	10/11(9)	09/24-10/28
Chuck-will's Wdw	31(1956-92)	4/17(6)	3/30-4/28			
Chimney Swift	25(1968-92)	4/08(4)	4/01-4/15	21(1970-91)	10/12(3)	10/08-10/18
Great Crested Fc	28(1956-92)	4/21(6)	4/04-4/28	05(1973-89)	09/08(3)	09/04-09/11
Western Kingbird	25(1968-92)	4/16(8)	3/19-4/25	10(1970-91)	09/17(17)	08/29-10/16
Eastern Kingbird	22(1968-92)	4/17(10)	3/22-4/28	05(1973-91)	09/19(7)	09/11-09/30
Scissor-tailed Fc	39(1938-92)	4/01(7)	3/07-4/21	24(1967-92)	10/23(8)	10/08-11/21
Purple Martin	23(1970-92)	2/09(8)	2/12-3/12	20(1970-92)	08/14(13)	07/24-09/03
Cliff Swallow	15(1971-90)	4/08(7)	3/24-4/18			
Barn Swallow	24(1969-92)	3/21(11)	2/25-4/09	14(1970-91)	10/12(10)	09/26-10/28
Dickcissel	17(1971-92)	4/28(6)	4/12-5/09			
Lark Sparrow	17(1967-92)	3/26(10)	3/02-4/11			
Grasshopper Sp	17(1963-92)	4/15(12)	3/24-4/28			
Northern Oriole	24(1967-92)	4/22(5)	4/11-4/29	07(1973-91)	09/16(5)	09/09-09/23

<sup>a</sup> Abbreviations: Cuc=Cuckoo; N-hawk=Nighthawk; Wdw=Widow; Fc=Flycatcher; Sp=Sparrow.