

THE RED-SHOULDERED HAWK IN SOUTHWESTERN OKLAHOMA

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The Red-shouldered Hawk, *Buteo lineatus*, is resident in moist lowland forests throughout much of eastern Oklahoma, but probably is to some extent migratory. Records are sparse for western sections of the state, but the species has nested as far west as Cleveland, Love and possibly Alfalfa counties and has been seen in Canadian, Caddo, Grady and Stephens counties (Sutton, G.M., 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 107; 1974, A check-list of Oklahoma birds, Contrib. Stovall Mus. Sci. & Hist. No. 1, p. 10; and [1982], Species summaries of Oklahoma bird records, Oklahoma Mus. Nat. Hist., Univ. Oklahoma, Norman).

Since December 1980, there have been 46 separate observations of the Red-shoulder in Comanche County and 12 others in Stephens County and northern Jefferson County (Tyler field notes). These are summarized in Table 1. All these individuals were associated with dense woodlands, primarily along streamcourses. Of these 54 records, 22 occurred during the winter months (27 December–18 March), 17 in spring (3 April–24 June) 9 in summer (2 July–1 September) and 6 in fall (3–13 October). Only about 40 percent of these dates fall into normal migratory periods.



RED-SHOULDERED HAWKS

Figure 1 shows the two young birds banded on 2 June 1989 at Fort Sill by Sam Orr (photo by Wallie Breden). An adult captured by Orr and Jay Banta at Fort Sill on 9 October 1988 appears in Figure 2 (photo by Orr).

Single subadult birds have been seen on 14 March (1988), 4 June (1986), 19 August (1984), 1 September (1986) and 10 October (1988). Most other records were of adults, two of which were reported together on 5 March 1985, 2 October 1986, 27 December 1986 (1987, Amer. Birds 41:1067) and 30 December 1987, when three were counted on the Stephens County Christmas Bird Count (1988, Amer. Birds 42:967).

Leonard Russell, Daryl Nobis and Brian Gardner observed a pair of Red-shoulders each summer, 1980–1984, along Cow Creek just north of Addington in Jefferson County, but never found an active nest. The hawks appeared in spring but were gone by mid-September or early in October (pers. comm., Leonard Russell). On 3 April 1983, Jon Andrew and Charles Boydston saw a Red-shoulder fly from a tree containing a raptor nest under construction, but they were not certain that it was a Red-shoulder nest. The location was in heavy timber along Post Oak Creek 2 miles northeast of Indianola in Comanche County. At this same location on 5 March 1985, Orr, Tyler and Allen Ratzlaff clearly heard the typical *peeee-o* scream as two adults circled several times overhead. They managed to obtain recognizable photographs (Tyler files), but were unsuccessful in locating a nest, if indeed, there was one.

The first documentation of nesting occurred in the spring of 1989. On 10 April, Banta and Orr, during a helicopter reconnaissance, flushed a bird from a new nest 40 feet up in the uppermost crotch of a spindly pecan tree (*Carya illinoensis*) near Post Oak Creek. The exact location was 2 miles north and 1 east of Indianola. In the nest were two eggs. Two days later, the eggs were still being incubated, as was also true on 24 April and 5 May. At various times during incubation, green boughs of cottonwood (*Populus deltoides*), red cedar (*Juniperus virginiana*), black locust (*Robinia pseudoacacia*) and box elder (*Acer negundo*) had been placed in the nest. On 15 May, Orr could see two hatchlings moving about in the nest and an adult perched only a few feet away. The two young hawks were photographed (Fig. 1) and banded by Orr (Nos. 816-69703 and —04) on 2 June. They were still in the nest with both adults not far away on 16 June. On 24 June, an adult was $\frac{3}{4}$ mile from the nest as a single young Red-shoulder flew over an open field near the nest.

More than half the known sightings since 1982 took place in the proximity of the Post Oak Creek site mentioned above, including the first Comanche County record: on 27 December 1982, Charles Boydston and Banta watched one that was perched in the same tree as a Great Horned Owl (*Bubo virginianus*) for approximately 30 seconds. Several observers, principally Boydston, found probably the same Red-shoulder there on eight other occasions between this initial sighting and 20 May 1983.

On 9 October 1988, Orr and Banta caught an adult Red-shoulder (Fig. 2) in a bal-chatri trap not far from the old Hoyle Bridge that spans East Cache Creek 2 miles east of the Fort Sill Post Office. Orr photographed, weighed (797g) and banded this bird (No. 816-69701).

From the foregoing, it is evident that the Red-shouldered Hawk is infrequently encountered in southwest Oklahoma. However, numbers appear to be increasing in proper floodplain habitat along this western periphery of its range, for it has been recorded each of the past 10 years. Westward movement probably retracts or expands from year to year depending on precipitation, land-use patterns, prey availability, reproductive success and perhaps other

factors. Preston *et al.* (1989, *Southwest. Nat.*, 34:72–78) suggested that availability of nest sites may influence distribution of this species. They found that Arkansas nests were consistently located *near water* in vegetation with tall canopy subtended by dense understory. During normal to dry years in southwestern Oklahoma, despite the presence of suitable habitat in a few select sites, water may not be plentiful enough to provide the associated prey upon which the birds largely depend over most of their range (amphibians, crayfish, meadow voles, etc.). The spring of 1989 was one of well above average rainfall, with 6.15 in. of precipitation through the first three months, compared to an average of 4.40 in. (Fort Sill, Oklahoma, Weather Service).

Table 1. Records for Red-shouldered Hawks in southwestern Oklahoma, 1952–89 (SS = Sutton Summary; JDT-FN = Tyler field notes; CUMZ = Cameron University Museum of Zoology; WMWR = Wichita Mtns. Wildlife Refuge).

Date	County	Location	No./Age	Observ.	Source
10/3/52	Stephens	10 mi. E Duncan	Ad.	G.M. Sutton, R.R. Graber & J.W. Graber	SS
4/19/62	Grady	2 mi. NW Alex	"	L.W. Oring	SS
3/3/74	Caddo	3 mi. NE Cyril	"	W.G. Voelker	SS
4/15–16/74	Caddo	Near Cement	1 bird	W.G. Voelker	W.G. Voelker
9/–/78	Jackson	2 mi. S Warren	Ad. (killed by dove hunter)	W. Webb	W. Webb
1980–84	Jefferson	2¼ mi. N Addington	2 ads. & inactive nest	L. Russell, D. Nobis, B. Gardner	L. Russell
12/27/82	Comanche	2 mi. NE Indiahoma	1 bird	C. Boydston, J. Banta	J. Banta
1/3/83	Comanche	2 mi. NE Indiahoma	1 bird	C. Boydston	J. Banta
1/15/83	Comanche	" " " "	" "	C. Boydston, J. Andrew	" "
1/23/83	"	" " " "	" "	C. Boydston	" "
3/18/83	"	" " " "	" "	J. Andrew	" "
4/3/83	"	" " " "	" "	C. Boydston, J. Andrew	" "
4/12/83	"	" " " "	" "	J. Andrew	" "
5/20/83	"	" " " "	" "	C. Boydston, M. England	" "
6/3/83	"	4 mi. N, 2 E Indiahoma	" "	M. England	" "
1/23/84	"	1½ mi. NW Cache	" "	C. Boydston, A. Pfister	" "
1/30/84	"	" " " "	" "	C. Boydston	" "
8/19/84	"	4 mi. SE Fort Sill PO.	Subad.	S. Orr	S. Orr

3/3/85	Comanche	2 mi. NE Indianoma	Ad. (?)	J. Banta, A. Ratzlaff	J. Banta
3/5/85	"	" " " "	2 ads.	J.D. Tyler, S. Orr & A. Ratzlaff	JDT-FN
5/11/85	"	2½ mi. E Meers	1 bird	J.D. Tyler	JDT-FN
10/13/85	"	2 mi. NE Indianoma	" "	J. Banta	J. Banta
10/13/85	"	2½ mi. N, 3 W Indianoma	" "	" "	" "
6/4/86	"	WMWR	Subad.	J.A. Grzybowski	<i>Am. Birds</i> 41:1456, 1987.
7/2/86	"	2 mi. NE Indianoma	1 bird	M. Granger	J. Banta
7/27/86	"	" " " "	1 bird	" " , W. Bartush	" "
9/1/86	"	1½ mi. NE Ft. Sill P.O.	Subad.	S. Orr, S. Petrie	" "
10/2/86	"	2½ mi. NE Indianoma	2 birds	W. Bartush	" "
12/27/86	"	2¼ mi. E Indianoma	Ad.	A. Breaden, W. Breaden	S. Orr
12/27/86	Stephens	8 mi. E Duncan	1 bird	Roma Lenehan, Lena Ferguson	C. Ferguson letter to JDT of 8/11/89
12/27/86	"	8 mi. NE Duncan	1 bird	C. Ferguson, <i>et al.</i>	<i>Am. Birds</i> 41:1067, 1987
5/9, 12/87	Comanche	WMWR-Rush L.	Subad.	J.A. Grzybowski, P. Ashman, <i>et al.</i>	J.A. Grzybowski
6/15/87	"	" "	"	J.A. Grzybowski, P. Ashman	" "
12/30/87	"	8 mi. E Duncan	3 birds	R. Lenehan, <i>et al.</i>	<i>Am. Birds</i> 42:967, 1988
1/10/88	"	1½ mi. NE Ft. Sill P.O.	Ad.	S. Orr, J. Banta	J. Banta
2/5/88	"	" " " "	Ad.	K. McCurdy	J. Banta
2/7/88	"	1½ mi. NE Cache	Ad.	S. Orr, W. Breaden	S. Orr
2/28/88	"	2½ mi. NNE Indianoma	Ad.	S. Orr, J. Banta	" "
3/14/88	"	1½ mi. NE Cache	Subad.	W. Bartush	J. Banta
4/11/88	"	1½ mi. N Indianoma	Ad.	" "	" "
8/14/88	"	" " " "	2 ads.	J. Banta, S. Orr	" "
10/3/88	"	1½ mi. N Indianoma	Ad.	S. Orr, K. McCurdy	S. Orr

10/9/88	Comanche	1¼ mi. E Ft. Sill P.O.	*Ad.	S. Orr, J. Banta	" "
10/10/88	"	2 mi. NE Indianhoma	Subad.	S. Orr, J. Banta	" "
12/28/88	Stephens	8 mi. E Duncan	2 birds	C. Ferguson, R. Lenehan, <i>et al.</i>	F. Neeld
1/21/89	"	3½ mi. S, 2½ W. Marlow	Ad.	J.D. Tyler, Jeff Tyler	JDT-FN
2/21/89	Jefferson	3 mi. E Hastings	Ad.	S. Gaines, G. Jackson, V. Pickren, <i>et al.</i>	Gaines letter of 4/13/89 to JDT; Jackson letter of of 4/25/89 to JDT; Photos at CUMZ
2/25/89	"	" " " "	Ad.	" " " "	" "
4/8/89	"	" " " "	Ad.	" " " "	" "
3/12/89	Comanche	2 mi. NE Indianhoma	2 ads.	S. Orr, W. Whitworth	S. Orr
4/1/89	"	1½ mi. NE Ft. Sill P.O.	Ad.	S. Orr	" "
4/10/89	"	2 mi. N, 1 E Indianhoma	Ad. on nest, 2 eggs	J. Banta, S. Orr	J. Banta
4/10/89	"	2½ mi. NW Cache	2 ads.	S. Orr	S. Orr
4/12/89	"	2 mi. N, 1 E Indianhoma	Ad. on nest	J. Banta, S. Orr, J. Tyler	JDT-FN
4/14/89	"	½ mi. N, 1 W Cache	Subad.	W. Bartush	W. Bartush
5/15/89	"	2 mi. N, 1 E Indianhoma	2 yng. in nest	S. Orr	S. Orr
6/2/89	"	" " " "	2 yng. banded	S. Orr, J. Banta	" "
6/16/89	"	" " " "	2 yng. in nest; both ads. near	S. Orr	S. Orr
6/19/89	"	2½ mi. NE Cache	Ad. courting	J.A. Grzybowski, D. Ladd	J.A. Grzybowski
6/24/89	"	2 mi. N, 1 E Indianhoma	Nest empty; 1 fledgling & 1 ad. in area	S. Orr	S. Orr

* Banded and photographed

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