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# BLACK-CHINNED HUMMINGBIRDS BREED IN GRADY COUNTY

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*Abstract.*—Black-chinned Hummingbirds are confirmed breeders in the Panhandle and southwestern Oklahoma. Since at least 1985, they have been present during the summer in Chickasha (Grady County) in central Oklahoma. In April 2006, 4 gravid female Black-chinned Hummingbirds were banded in Chickasha, which suggested that they bred in the area. During summer 2007, 4 nests were discovered in Chickasha. Two of the nests fledged young. Birders in central Oklahoma should be alert for the possibility of other Black-chinned Hummingbird nests.

Black-chinned Hummingbirds (*Archilochus alexandri*) are widespread breeders from southern British Columbia through much of western North America and into northern Mexico (Baltosser and Russell 2000). In Oklahoma, they were first reported in 1940 in the Wichita Mountains National Wildlife Refuge in Comanche County (Tyler 2005). They are now migrants and summer residents in the Panhandle (Cimarron County) and southwestern Oklahoma (Oklahoma Bird Records Committee [OBRC] 2004). They are confirmed breeders in Cimarron and Comanche counties (Reinking 2005).

Confirmed breeding records from elsewhere in the state are lacking, which may be due to the difficulty in identifying female Black-chinned Hummingbirds. Male Black-chinned Hummingbirds do not incubate eggs or feed nestlings (Baltosser and Russell 2000). Separating female and immature Black-chinned Hummingbird from Ruby-throated Hummingbirds (*Archilochus colubris*) is difficult (Tyler 2005) and depends on a detailed study of individual primaries and rectrices (Pyle 1997).

Although the OBRC (2004) does not show Black-chinned Hummingbirds occurring in central Oklahoma, they have been present at feeders in Chickasha (Grady County) since at least 1985 (D. Ledbetter, pers. obs.). Tyler (2005) suggested that the average arrival date for Black-chinned Hummingbirds in southwestern Oklahoma and north-central Texas was 10 April, and the OBRC (2004) suggested that they usually arrive on 12 April. During 2006, male Black-chinned Hummingbirds were first noticed at a feeder in Chickasha on 10 April. Hummingbird banding was conducted in 3 locations near Chickasha (35° 02' 30" N x 97° 56' 30" W, 34° 59' 29" N x 97 59' 31" W, and 35° 03' 50" N x 97° 58' 38" W) during 21–30 April 2006 and 36 Black-chinned Hummingbirds were captured (Table 1). Four of the female Black-chinned Hummingbirds captured (2 on 21 April and 2 on 22 April) were gravid, which indicated that they were nesting nearby.

**Table 1**. A summary of hummingbirds banded during spring 2006 and 2007. The hybrids appeared to be crosses between Black-chinned Hummingbirds and Ruby-throated Hummingbirds.

| | 2006 | | 2007 | |
|---|---|---|---|---|
| Species | Male | Female | Male | Female |
| Black-chinned Hummingbird | 24 | 12 | 3 | 10 |
| Hybrid | 3 | 0 | 3 | 0 |
| Ruby-throated Hummingbird | 14 | 3 | 7 | 2 |

During 2007, the first male Black-chinned Hummingbird was noticed on 25 March, an unusually early date according to Tyler (2005) and OBRC (2004). Banding was conducted 4 times at 2 locations between 25 April and 1 May 2007 (Table 1); 13 Black-chinned Hummingbirds were captured, including 4 gravid females on 28 April. Five of the Black-chinned Hummingbirds (4 males and 1 female) were recaptures that had been banded initially in the same location in Chickasha during 2006.

On 27 May 2007, a Black-chinned Hummingbird nest was discovered in an Austrian pine (*Pinus nigra*) approximately 2.5 m above the ground (Fig. 1). The nest appeared to have been constructed with the "cotton" from a cottonwood (*Populus deltoides*), spider webs, and pieces of lichen. At the time of the discovery, the nest contained 2 eggs. This nest was checked daily. On 8 June 2007, 1 egg hatched and by 9 June 2007, both of the eggs had hatched (Fig. 1). The first fledgling left the nest on 29 June and the second fledgling left the nest on 30 June.

On 2 July 2007, a female Black-chinned Hummingbird began building a nest (nest #2) approximately 8 m up in the same Austrian pine where the first nest was discovered. The female gathered the "cotton" from a nearby cottonwood and used spider webs to secure it to the branch. She continued constructing this nest on 3-4 July but was not observed at the nest thereafter.

On 6 July 2007, 2 more Black-chinned Hummingbird nest were located in Austrian pines. One nest (nest #3) was approximately 2.5 m above the ground and was located only 5 m from nest #1. The female Black-chinned Hummingbird was

**Fig 1**. Black-chinned Hummingbird nests with 2 eggs in Grady County, Oklahoma, July 2008 (left) and with near fledglings (right); note relatively broad primary 10 and relatively pointed rectrix 5.

actively constructing the nest at the time of discovery, and the nest was checked on a daily basis. On 12 July, the first egg was noted and on 14 July, there were 2 eggs in the nest. However, on 25 July, the 2 eggs disappeared and the nest failed. Despite an hour of searching, no sign of egg shells were located in the vicinity. Potential predators observed in the area include fox squirrels (*Sciurus niger*), Common Grackle (*Quiscalus quiscula*), and several species of snake, but we were unable to ascertain which species depredated the nest.

Nest #4 was located approximately 7.5 m above the ground and approximately 10 m from nest #1. Because of its height, it was not possible to check the contents of this nest using a mirror, although observations through a spotting scope were made daily. On 11 July, the female was observed feeding 2 nestlings and both nestlings fledged on 27 July. The first young fledged before 1200 h, and the second fledged between 1200 h and 1800 h.

Nests #3 and #4 were occupied at the same time; therefore, at least 2 female Black-chinned females were confirmed as breeders. All 4 nests were within 18 m of each other, which was a denser concentration than was typically noted. In southeastern Arizona and southwestern New Mexico, for example, nests were typically spaced approximately 100 m from the nearest neighbor (Baltosser and Russell 2000). However, it should be noted that the nest spacing reported by Baltosser and Russell (2000) was in an area without hummingbird feeders. It is possible that the numerous hummingbird feeders in D. Ledbetter's yard may have induced the Black-chinned Hummingbird females to breed in closer proximity to each other than had been previously reported in the literature.

After the young fledged, we measured 2 nests that could be easily reached. The external diameter of the nest #1 was 4.3 cm, and the external diameter of nest #3 was 4.1 cm. The internal diameter of nest #1 was 3.1 cm, and the internal diameter of the nest #3 was 1.8 cm. Nest #1 fledged 2 young, while nest #3 was depredated; the larger internal diameter of nest #1 was likely due to the young birds gradually stretching the nest. The internal depth of nest #1 was 1.3 cm, and the internal depth of nest #3 was 2.1 cm. Those measurements were very similar to those reported by Baltosser and Russell (2000). We also measured the diameter of the branch immediately before the nest; it was 1.6 cm for nest #1 and 1.0 cm for nest #3.

Nest productivity was relatively high. Of the 3 nests with eggs or young, 2 managed to successfully fledge young. This fledging success rate was higher than the 35-45% fledging success reported by Baltosser (1986), although it should be noted that the sample size in our study ($n = 3$) was very small.

This breeding record is notable because it extends the breeding range of the Black-chinned Hummingbird into central Oklahoma. Several observers have noted an increase in Back-chinned Hummingbirds in the western U.S. and Canada (Baltosser and Russell 2000), and it has been suggested that Black-chinned Hummingbirds are expanding their range (Reinking 2004). Birders in central Oklahoma should be alert for the possibility of locating additional nests of this species.

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## Literature Cited

Baltosser, W. H. 1986. Nesting success and productivity of hummingbirds in southwestern New Mexico and southeastern Arizona. Wilson Bulletin 98:353–367.

Baltosser, W. H., and S. M. Russell. 2000. ~~Black-chinned~~ ~~Hu~~mmingbird (*Archilochus alexandri*). *In* The Birds of North America, No. 495 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Oklahoma Bird Records Committee. 2004. Date guide to the occurrences of birds in Oklahoma. Fourth Edition. Oklahoma Ornithological Society, Tulsa.

Pyle, P. 1997. Identification guide to North American birds, Part 1: Columbidae to Ploceidae. Stone Creek Press, Bolinas, California.

Reinking, D. L., Ed. 2004. Oklahoma breeding bird atlas. University of Oklahoma Press, Norman.

Tyler, J. D. 2005. Birds of Southwestern Oklahoma and North Central Texas. Transcript Press, Norman.

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