

**BREEDING BURROWING OWLS IN NORTH CENTRAL OKLAHOMA**

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*Abstract*—On 6 June 2007, we located a Burrowing Owl (*Athene cunicularia*) nest southeast of Nash in Grant County, Oklahoma. This is the first record of breeding Burrowing Owls in this county since the 1960s. Additional documentation of breeding activity in Oklahoma will provide valuable information to enhance conservation of Burrowing Owls.

Historically, Burrowing Owls (*Athene cunicularia*) were widespread breeders throughout western and central Oklahoma, and they probably bred in at least 15 counties (Sheffield and Howery 2001). Following nearly range-wide population declines, however, the species is now confined to extensive tracts of short-grass prairie in western Oklahoma where prairie dog colonies remain (Baumgartner and Baumgartner 1992, Haug et al. 1993, Sheffield and Howery 2001, Reinking 2004). While scattered records exist across western Oklahoma, few document successful breeding east of the Panhandle. The decline of Burrowing Owls has been attributed primarily to habitat destruction or alteration, especially through conversion of native grasslands to croplands and destruction of prairie dog towns. Intensive cultivation of native grasslands was identified as a major factor contributing to Burrowing Owl declines as early as the 1930s (Bent 1938).



**Fig. 1.** Juvenile Burrowing Owls in Grant Co., Oklahoma, 2 August 2007. Photograph by Vince Cavalieri.

Populations of black-tailed prairie dogs (*Cynomys ludovicianus*), with which burrowing owls are strongly associated, have been reduced by as much as 98% in some areas through eradication by humans and sylvatic plague (*Yersinia pestis*) (Miller et al. 1990, Miller et al. 1994, Pauli et al. 2006). Other reasons for declines include vehicle collisions, shootings, and exposure to pesticides (Butts 1973, Fox et al. 1989, Haug et al. 1993, James et al. 1997, Sheffield 1997).

On 6 June 2007, while surveying grassland birds in Grant County, 8.6 km southeast of Nash, Oklahoma, AG flushed an adult Burrowing Owl. As the owl flew, it gave a series of rasping “chucks” (Sibley 2000) before landing on a nearby fence post. It was small and brown with white spots on the dorsum and bars across the breast. It was tuftless and had bright yellow eyes and long legs. AG returned to the same location weekly for the next 6 weeks and noted 1–2 owls on every occasion (Fig. 1). In early August 2007, we observed at least 2 juvenile owls; both had unmarked, buffy underparts, and pale shoulder patches (Haug et al. 1993).

The owls were using a burrow presumably made by prairie dogs; a single black-tailed prairie dog was observed at a nearby burrow entrance in late July 2007. The burrow with the owl was located at the edge of a heavily grazed field planted with Old World bluestem (*Bothriochloa ischaemum*). Vegetation was absent from the area immediately surrounding the burrow entrance. A cattle trough and fence located within 50 m of the burrow may have served as perches for the owls. Site characteristics were similar to those described by Green (1983) and Plumpton (1992).

Historical records of Burrowing Owls in Grant County are few. Jack Tyler provided 3 June 1967 as an early date for observation of juvenile owls in Grant County (Tyler 1968), and he collected 2 juveniles in August 1969 (Oklahoma Biological Survey 2008). In a survey of 7 Grant County prairie dog towns from 1986–1989, a lone adult was observed on 24 March 1988 (J. S. Shackford, unpubl. data).

Our observation represents the first confirmed breeding for Burrowing Owls in north-central Oklahoma since the late 1960s (Tyler 1968, Baumgartner and Baumgartner 1992, Oklahoma Biological Survey 2008). It is unclear whether this record reflects a paucity of research in the area in recent years, is an isolated case of extralimital breeding, or is indicative of Burrowing Owl recolonization of former breeding range; additional sightings in 2008 in nearby counties point toward the latter. On 15 May 2008, AG observed 2 Burrowing Owls at 1 location in Grant County. On 30 May 2008, AG observed 2 Burrowing Owls in Woods County, 20 km west of Cherokee in the edge of an alfalfa field. On 29 March 2008, AG observed a single Burrowing Owl in Alfalfa County, 12 km west of Cherokee. This owl may have been a migratory transient because it could not be relocated on later visits. Prairie dogs were not observed at the above locations.

Burrowing Owls are listed as threatened, endangered, or as a “species of special concern” in almost every state or province within their North American range. The Oklahoma Department of Wildlife Conservation has listed the Burrowing Owl as a “Species of Greatest Conservation Need” (Oklahoma Department of Wildlife Conservation 2005). If conservation efforts are directed toward the prairie dog-grassland ecosystem, it is likely that Burrowing Owls also will benefit. Additional documentation of breeding activity in Oklahoma, especially beyond the known breeding range, will provide valuable information contributing to conservation of



## Burrowing Owls.

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**Second Black Phoebe Record for Oklahoma.**—On 29 December 2004 at 1100 h, John Sterling observed a juvenile Black Phoebe (*Sayornis nigricans*) on the backside of the spillway at Broken Bow Lake, 15 km N of Broken Bow, McCurtain County, Oklahoma. This sighting was during the Broken Bow Christmas Bird Count (CBC), so when alerted at noon, 16 other CBC participants came and observed this phoebe. I monitored the phoebe about 2 times per week for the duration of its 55-day stay. On 15 February 2005 at 1050 h, I observed the phoebe fly straight up about 20 m several times, then glide down to grooves in the concrete wall of the spillway, where it hung and spread its wings and tail. That display was consistent with the mating display of male Black Phoebes (Wolfe, B. O. 1997. Black Phoebe [*Sayornis nigricans*]. The Birds of North America, No. 268 [A. Poole and F. Gill, eds.]. The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D. C.). The Black Phoebe record was accepted by the Oklahoma Bird Records Committee (OBRC) on 4 March 2005 (J. Arterburn, 2005, pers. comm.), and I last observed the phoebe on 25 March 2005 at 1400 h.

The first Oklahoma record of the Black Phoebe was by Jeri A. McMahon on 27 October 1999 south of Braggs, Muskogee County. This bird was last seen 8 December 1999 (McMahon, J. A. 2000. First record of the Black Phoebe for Oklahoma. Bulletin of the Oklahoma Ornithological Society 33:3.).

Max Parker, Chair, Arkansas Bird Records Committee (pers. comm. 2005) has no records of Black Phoebe. Max Thompson, Chair, Kansas Bird Records Committee (2005, pers. comm.) has 1 record for the Black Phoebe "8 mi. N. Elkhart, Morton Co., Kansas, Tom Shane."

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