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NEW NEST RECORDS FOR THE VIRGINIA RAIL (*RALLUS LIMICOLA*) IN OKLAHOMA

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Abstract—The Virginia Rail (*Rallus limicola)* is a transient and rare summer resident of Oklahoma. There are few accounts that provide proof of breeding in the state, and during the Oklahoma Breeding Bird Atlas, no breeding evidence was reported. This is largely the result of the secretive nature of this species and the sparseness of appropriate habitat within the state. I provide 2 new nesting records for the species from summer 2007. One of these nest records represents the first confirmed Virginia Rail nest with eggs in Oklahoma since 1860.

The Virginia Rail (*Rallus limicola*) is a secretive species that inhabits freshwater marshes with robust stands of emergent vegetation such as sedges (*Scirpus*), cattails (*Typha*), and tall grasses; additionally, they can be found in swampy grassland, wet meadows, irrigated hayfields, brackish marshes and occasionally salt marshes. Freshwater marshes in early stages of succession are favored (Taylor and van Perlo 1998).

Fig. 1. Virginia Rail nest with 3 eggs at Hackberry WMA, Tillman County, Oklahoma 28 May 2007.

Virginia Rail is considered a transient (Sutton 1967) and a "rare" visitor in Oklahoma from 10 September through 15 May (Oklahoma Birds Record Committee 2004). There are few breeding records for Oklahoma and only 1 record of an active nest with eggs (Sutton 1967; Reinking 2004; Tyler 2005). The species is an uncommon summer resident throughout Kansas (Busby and Zimmerman 2001), uncommon to fairly common resident of the Texas Panhandle (Seyffert 2001), and uncommon elsewhere in Texas (Lockwood and Freeman 2004), with scattered breeding records mainly in central Texas. I provide details of 2 Virginia Rail nests that I found during spring and summer 2007 in Oklahoma.

Table 1: Breeding Records of the Virginia Rail in Oklahoma previous to 2007

Date	County	Notes	Citation
13 June 1860	Washita	Nest w/ 6 eggs	Nice 1931
27 April 1930	Tulsa	Female holding eggs	Nice 1931
no specific date	Beaver	Half grown birds	Lewis 1930
27 April 1956	Beaver	Female holding eggs	Sutton 1967
12 July 1961	Alfalfa	Adults and brood	Sutton 1967
25 July 1961	Alfalfa[a]	Adults and brood	Sutton 1967
28 May 1993	Cimarron	Associating Adults	Shackford and Tyler 1994
9 May 2005	Tulsa	6 chicks	Loyd,et.al. 2006
27 June–8 July 2005	Cimarron	4 juveniles	McConnell et.al.2006

[a]Exact location of last count

Past nest and breeding accounts in Oklahoma—The Virginia Rail was first confirmed breeding in Oklahoma in June 1860. Discovered during an expedition to survey the northern boundary of Texas, Charles S. Mcarthy and John H. Clark collected specimens of species they encountered, some of which were found west of Fort Cobb in Washita County (Tyler 2005). These specimens were deposited at the National Museum of Natural History. One specimen (USNM B4014) was of 3 eggs from a Virginia Rail nest. The nest initially contained 6 eggs and was found at Cobb Creek, Washita County, initially reported as "Pond Creek" (Sutton 1967; Tyler 2005) which flows from the northwest into Fort Cobb Reservoir.

There has not been a confirmed nest with eggs of this species in Oklahoma for 147 years, although there are scattered breeding records. These breeding records (Table 1) are of adults with young, or of collected specimens that contained eggs. In total, there were 5 Oklahoma counties with breeding evidence for the Virginia Rail.

New nesting account—In spring 2007, while surveying for marsh birds in western Oklahoma using call broadcast surveys (Conway 2005), I located 2 Virginia Rail nests. The first nest was found below the spillway at Optima National Wildlife Refuge (NWR); the second was at Hackberry Flat Wildlife

Management Area (WMA). Both records described here are from counties with no prior breeding records for this species.

I visited the spillway of the Optima Reservoir at the Optima NWR in Texas County on 20 May 2007. The area just below the spillway had a small cattail (*Typha latifolia)* marsh about 115 m in length and 12–20 m in width. Cattails were dense, and the water depth was 10–100 cm. Because Virginia Rails had been located there in previous years (George Kamp pers. comm.), I chose to scour this small marsh for any potential birds or nests. Upon entering the marsh, 2 Virginia Rails instantly announced their presence with a grunt-like call (*Rrnnt-Rrnnt-rrnnt-rrnnt*); both birds were within a meter of one another, hinting at the potential presence of a nest. Virginia Rail pair bonds are only maintained during the breeding season (Taylor and van Perlo 1998). After 25 min of searching, I found a small platform nest about 5 cm above the water. The fact that this nest was empty with no evidence of eggs led me to believe that I had located the birds during the nest preparation period or that this was a brood nest which Virginia Rails often make near their breeding nest (Taylor and van Perlo 1998; Conway 1995). The Optima NWR was not part of my initial list of survey routes, and thus I did not return for a follow up investigation of the nest.

On 12 May 2007, I surveyed Hackberry Flat WMA in Tillman County. No Virginia Rails were detected at that time. I returned on 28 May 2007 and during this second survey, 2 Virginia Rails responded to broadcasted calls. Those responses were noted, and the route was continued until 0753 h, when additional observers (Lou Truex, Mary Truex and Kurt Meisenzahl) reached the WMA. Due to the rarity of Virginia Rails in the region and the late date of observation, I informed these observers about the pair of rails.

The particular unit that the birds were located in (Rail Unit) had a thick carpet of rushes and scattered smaller patches of taller (1.5 m) sedges (*Scirpus*) and cattails; the water level was 2.5 cm in most places. The nest was located within 10 min, after having pursued the adults for photo documentation. The nest was a small cup built on a raised platform, which kept the cup up and away from the water. Both the cup and platform consisted predominately of the dead, dry plant materials from *Scirpus* species that were present and dominant in the Rail Unit. Measurements of the nest were: inside width, 9.14 cm; inside height of the cup from base to rim, 4.72 cm; and height of the platform from base to rim, 13.08 cm. To provide cover for the 3 eggs, live sedges were bent over the nest cup to form a dome that concealed the entire platform, except for a single small opening (Fig. 1); the adults presumably entered and exited through. The 3 eggs were colored buff-white and had scattered specks of brown and purple.

I returned to the same location the following day to check the nest; it contained an additional egg or a total of 4. I did not return again until 15 June 2007, at which time the nest was empty. The nest appeared undisturbed, and there were no signs of a mammal tracks or scat. This area does have an abundance of water snakes, which could be a possible source of nest predation, if that was in fact the cause of the nest failure. The nest was

subsequently collected and deposited at the Cameron University Museum of Zoology.

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