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815 S. JAMESTOWN AVE., TULSA, OK. 74112. Received 25 October 1997, accepted 20 November 1999.

## NOTES

*Bull. Oklahoma Ornithol. Soc.* 32:29–31, 1999

**Common Nighthawk nesting on an exposed alkaline flat.**—Documented nesting habitat for Common Nighthawks (*Chordeiles minor*) consists of coastal habitat, forest clearings, sagebrush (*Artemisia* spp.), grasslands, agricultural fields, rocky outcrops, and gravel roofs (Poulin et al., Common Nighthawk (*Chordeiles minor*), in *The Birds of North America* (A. Poole and F. Gill, eds.), no. 213, Acad. Nat. Sci., Philadelphia, and Am. Ornithol. Union, Washington, DC., 1996). In Oklahoma, Common Nighthawks typically nest in well-drained, treeless, barren areas (Sutton, Oklahoma birds, Univ. Oklahoma Press, Norman, 1967).

At the Salt Plains National Wildlife Refuge (SPNWR) in Alfalfa County, Oklahoma, Common Nighthawks usually nest in grassland habitat (pers. obs.). However, three Common Nighthawk nests at SPNWR were found in atypical habitat in 1995–1997. A pair of unmarked nighthawks nested on sparsely vegetated sandy knolls within an alkaline flat in both 1995 and 1996, and another pair nested on an alkaline flat away from vegetation in 1997. To our knowledge, this represents the first report of Common Nighthawks nesting on an alkaline flat. Although nighthawks are known to nest in barren habitats, the typical substrate is cryptic (that is, covered with gravel or against a background similar in color to the eggs; pers. obs.). Alkaline flats do not provide any camouflage for Common Nighthawks or their eggs and no vegetative cover for protection from heat or cover from predators.

The nighthawk nests were found during systematic searches of a study site on the salt flats. Nests were marked with a dowel placed 10 m from the nest. Nests were monitored at least once a week until the nest was destroyed or the chicks could not be located.

In the 1995 and 1996 nestings, a Common Nighthawk nest was found in transitional herbaceous grassland and alkaline-flat habitat along the western boundary of SPNWR (Winton, M. S. thesis, Oklahoma State Univ., Stillwater, 1997). The nest in 1995 was on a sparsely vegetated sand hillock (about 10% vegetative cover) along an edge of the alkaline flat. The nest was monitored for 18 days until both eggs apparently hatched in early July. Eggshell fragments and no yolk stains indicated hatching, but no chicks were observed. The nest in 1996 was in similar habitat (about 8% vegetative cover) north of the 1995 nest site. Only one egg was laid in a bare patch within a vegetated sand hillock. We found eggshell fragments and no yolk stains in early July, but no chicks were seen (Winton 1997).

On 4 June 1997, a Common Nighthawk nest was found on the alkaline flat (0% vegetative cover) at the edge of a Least Tern (*Sterna antillarum*) colony. Two eggs were found about 0.5 m apart among driftwood on the alkaline flat; only one egg was being incubated. The other appeared to have rolled or washed off the nest scrape. The nest was monitored until hatching on about 16 June. The juvenile was resighted on three occasions over the 13 days following hatching. Fifteen days after hatching, an adult Common Nighthawk was flushed from the nest area, but we could not find the juvenile. No nighthawks were observed in this area after 7 July.

During the period of incubation and brooding of the nighthawk nest in 1997, maximum daytime temperatures on the salt flats ranged from 22° to 40° C. In addition, 1997 was a year of high rainfall that resulted in the destruction of 41% of Least Tern nests and 44% of Snowy Plover (*Charadrius alexandrinus*) nests in that area. Each time the juvenile nighthawk was seen, it displayed evidence of heat stress through continuous gular fluttering. The defensive behavior of the adult 15 days after the chick hatched appeared to indicate that the chick survived at least that

long. Common Nighthawks fledge at about 18 days of age (Rust, *Condor* 49:177–188, 1947; Poulin et al. 1996), so this juvenile presumably fledged despite flooding, high predation, and extreme heat characteristic of SPNWR (Koenen et al., *J. Field Ornithol.* 67:281–291, 1996).

We thank Rod Krey for providing equipment and allowing access to the alkaline flat at SPNWR. Support was provided by the U. S. Fish and Wildlife Service, U. S. National Biological Service, and the Oklahoma Cooperative Fish and Wildlife Research Unit (Oklahoma State University, Oklahoma Department of Wildlife Conservation, U. S. G. S. Biological Resources Division, and Wildlife Management Institute, cooperating).—JOANNA B. WHITTIER, BRYAN R. WINTON, AND DAVID M. LESLIE, JR., *U. S. Geological Survey, Biological Resources Division, Oklahoma Cooperative Fish and Wildlife Research Unit, Department of Zoology, Oklahoma State University, Stillwater, OK. 74078 (JBW, DML); U. S. Fish and Wildlife Service, Lower Rio Grande Valley National Wildlife Refuge, Route 2, Box 202A, Alamo, TX. 78516 (BRW)*. Received 14 December 1998, accepted 26 October 1999.

*Bull. Oklahoma Ornithol. Soc.* 32:31, 1999

**Ruby-throated Hummingbird banded in Vinita, Oklahoma, recovered in Kerrville, Texas.**—On 3 August 1998 at a site 9.5 km south of Vinita, Craig County, Oklahoma, I banded an immature male Ruby-throated Hummingbird (*Archilochus colubris*). That bird in full adult plumage entered a trap operated by Hanna Richard in Kerrville, Texas, on 30 August 1999. It was examined and released. A similar recovery was reported by Baumgartner (*Bull. Oklahoma Ornithol. Soc.* 19:21–23, 1986), in which a Ruby-throated Hummingbird she banded 8 km south of Jay, Delaware County, Oklahoma, on 8 July 1983 was encountered in Kerrville on 16 September 1985. The Baumgartner bird had been caught several times near the Jay banding site, suggesting it was a local breeder. The immature bird in Vinita may have hatched elsewhere, because it was caught only once and fall migration was well underway when it was banded. Vinita and Jay are separated by approximately 40 km, and it is interesting that at least two Ruby-throated Hummingbirds from the same part of northeastern Oklahoma were encountered more than 800 km to the southwest in Kerrville, Texas.—ELLIE WOMACK, *1022 S. Sycamore Dr., Grove, OK. 74344*. Received 27 September 1999, accepted 22 November 1999.

*Bull. Oklahoma Ornithol. Soc.* 32:31-32, 1999

**Praying mantis preys on hummingbird.**—On 19 September 1998 at approximately 13:00, we observed a male Ruby-throated Hummingbird (*Archilocus colubris*) in an abnormal position on a sugar-water feeder at our house in Broken Bow, McCurtain County, Oklahoma. On closer

examination we observed a green-colored praying mantis, approximately 10 cm in length, standing on the feeder while it held and fed on the hummingbird. We destroyed the mantis and observed that it had eaten a deep hole, approximately 1 cm in diameter, in the back of the hummingbird's neck. We had observed a mantis on the feeder on prior days, at which time hummingbirds seemed reluctant to approach, but we did not realize that it could capture such large prey. A large brown-colored praying mantis was found on the feeder the next day. The feeder hangs amid an arch of trumpet creeper (*Campsis radicans*) vines which could attract mantises.—OWEN J. KESTERSON AND CHRISTINE A. KESTERSON, *Route 4, Box 29, Broken Bow, OK. 74728*. Received 15 September 1999, accepted 22 November 1999.

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