

- Gray, M.V., and J.M. Greaves. 1984. Riparian forest as habitat for the Least Bell's Vireo. Pp. 605-611 in *California riparian systems: ecology, conservation and productive management* (R. Warner and K. Hendrix, Eds.). Univ. California Press, Davis.
- Grinnell, J. 1914. An account of the mammals and birds of the lower Colorado valley with especial reference to the distributional problems presented. *Univ. Calif. Publ. Zool.* 12: 51-294.
- Mayfield, H. 1965. The Brown-headed Cowbird with old and new hosts. *The Living Bird* 4: 13-28.
- Nice, M.M. 1929. The fortunes of a pair of Bell Vireos. *Condor* 31: 13-20.
- Overmire, T.G. 1962. Nesting of the Bell's Vireo in Oklahoma. *Condor* 64: 75.
- Overmire, T.G. 1963. The effects of grazing upon habitat utilization of the Dickcissel (*Spiza americana*) and Bell's Vireo (*Vireo bellii*) in north-central Oklahoma. Ph.D. Diss., Oklahoma State Univ., Stillwater.
- Pitelka, F.A., and E.J. Koestner. 1942. Breeding behavior of Bell's Vireo in Illinois. *Wilson Bull.* 54: 97-106.
- Ralph C.J., G.R. Geupel, P. Pyle, T.E. Martin, and D.F. DeSante. 1993. Handbook of field methods for monitoring landbirds. Gen. Tech. Rept. PSW-GTR-144. Albany, CA: Pacific Southwest Res. Sta., Forest Serv., U.S. Dept. Agric.
- Robbins, C.S., D. Bystrak, and P.H. Geissler. 1986. The breeding bird survey: its first fifteen years, 1965-1979. Resource Publ. 157, U.S. Fish & Wildl. Serv., Washington, D.C.
- Rosenberg, K.V., R.D. Ohmart, W.C. Hunter, and B.W. Anderson. 1991. Birds of the Lower Colorado River Valley. Univ. Arizona Press, Tucson.
- Sutton, G.M. 1967. Oklahoma birds. Univ. Oklahoma Press, Norman.
- Title 50 CFR 17.11 & 17.12. 1994. Endangered and threatened wildlife and plants. U.S. Fish & Wildl. Serv., Washington, D.C.

<sup>1</sup>Oklahoma Museum of Natural History, University of Oklahoma, 1335 Asp Ave., Norman, Oklahoma 73019 and <sup>2</sup>Graduate School of Civil Engineering and Environmental Science, 202 West Boyd Street, University of Oklahoma, Norman, Oklahoma 73019.

#### GENERAL NOTE

**Brown-headed Cowbirds fledged from a Louisiana Waterthrush nest.**—Although Friedmann (1929; 1963; Friedmann et al, 1977) considered Louisiana Waterthrushes (*Seiurus motacilla*) to be frequent hosts of Brown-headed Cowbirds (*Molothrus ater*), no record of parasitism has been reported in Oklahoma. On 6 July 1995, I located a Louisiana Waterthrush nest under a root tangle along a small drainage in Clear Creek Canyon near Pawhuska Lake, 3 miles west and 1 1/2 south of Pawhuska, in Osage County, Oklahoma. Upon examination, I noticed that at least one of the three young contained in the nest was a Brown-headed Cowbird. As I attempted to move the cowbird young so that I could more closely examine the other two nestlings, all three jumped from the nest. They were all fully feathered cowbird nestlings, capable of flying two to three meters. I placed them back into the nest. The following day, I examined the now empty nest, and no adult waterthrushes or fledgling cowbirds were

seen. On three or four occasions over the next couple of weeks, an adult waterthrush was in the area of the nest, and chipped as if annoyed at my presence.

Friedmann (1929; 1963) suggested that Louisiana Waterthrushes are multiply parasitized more frequently than most species, noting that ten (18.2%) of 55 nests on which he had data contained three or four cowbird eggs each. Eaton (1958) reported that three (18.8%) of 16 Louisiana Waterthrush nests he monitored in New York from 1947 through 1949 held three or four cowbird eggs each, although these nests were not included in Friedmann's aforementioned computations. A waterthrush nest in Iowa contained six cowbird eggs together with two waterthrush eggs (Lowther, 1985). Bent (1953) stated that "Three or four eggs of the cowbird are likely to cause the waterthrush to desert the nest." Eaton (1958), however, reported that of two waterthrush nests containing three cowbird eggs each, one fledged two cowbirds and no host young, and another nest containing four cowbird eggs fledged three cowbirds and one host young. Apparently, Bent's statement does not always hold true, as at least two (67%) of Eaton's multiply parasitized nests were not abandoned; the female waterthrush was killed at the third nest.

Also of interest is the late date of this nest. The latest dates given by Sutton (1967) were 28 June for a fledgling waterthrush seen with an adult, and 25 June for young still in the nest. The above observation took place more than a week later than these dates. Perhaps many earlier nests were destroyed by floods due to higher than average rainfall in April and May of 1995.

#### LITERATURE CITED

- Bent, A.C. 1953. Life histories of North American wood warblers. *Bull. U.S. Natl. Mus.* 203
- Eaton, S.W. 1958. A life history of the Louisiana Waterthrush. *Wilson Bull.* 70:211-236.
- Friedmann, H. 1929. The Cowbirds: A study in the biology of social parasitism. Charles C. Thomas, Springfield, Illinois & Baltimore, Maryland.
- Friedmann, H. 1963. Host relations of the parasitic cowbirds. *Bull. U.S. Natl. Mus.* 233:1-276
- Friedmann, H., L.F. Kiff, and S.I. Rothstein. 1977. A further contribution to knowledge of the host relations of the parasitic cowbirds. *Smithson. Contrib. Zool.* 235:1-75.
- Lowther, P.E. 1985. Catalog of Brown-headed Cowbird hosts from Iowa. *Proc. Iowa Acad. Sci.* 92:95-99.
- Sutton, G.M. 1967. Oklahoma birds. Univ. Oklahoma Press, Norman.

Donald H. Wolfe, *George M. Sutton Avian Research Center, P.O. Box 2007, Bartlesville, Oklahoma 74005, 5 March 1996.*