

NOTES

HISTORICAL REVIEW OF ARIZONA'S NESTING NORTHERN HARRIERS, INCLUDING THE MOST RECENT CONFIRMED NESTING IN 1998

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The Northern Harrier (*Circus cyaneus*) is a widespread but locally distributed breeder in North America, ranging from Alaska across Canada to central Quebec and southern Newfoundland, south to Baja California, northern Texas, and Virginia (excluding many eastern states; MacWhirter and Bildstein 1996). It nests primarily in grassy marshes, both salt and fresh, wet prairie with tall grasses, in areas intermixed with woody growth, and also in agricultural areas (MacWhirter and Bildstein 1996, American Ornithologists' Union 1998). In the southwestern USA the species' breeding range includes the southern portions of Nevada, Utah, and Colorado and portions of California, New Mexico, and Texas. In northern Arizona its breeding is occasional or localized (MacWhirter and Bildstein 1996, AOU 1998). Here we summarize the few historical nesting records of Northern Harriers in Arizona since 1872 and report the first known nesting by the species in the state in more than a decade.

To determine the extent of Northern Harrier observations in Arizona, we reviewed museum records, historical accounts, and other publications, including the reports of the Arizona Bird Committee (Speich and Parker 1973, Speich and Witzeman 1975, Rosenberg and Witzeman 1998) and the seasonal summaries in *American Birds* and its permutations *Audubon Field Notes*, *Field Notes*, and *North American Birds* from 1947 to 1999. We contacted professional and competent lay persons with knowledge of the species in Arizona, especially those who may have reported harriers in the state during the breeding season. Nesting has yet to be confirmed for the Arizona Game and Fish Department's breeding-bird atlas survey efforts initiated in 1993 (T. Corman pers. comm.), and there are no harrier nesting records in the department's database. All Arizona harrier specimens on deposit in museums were collected during migration or wintering periods.

Northern Harriers are fairly common transients and winter visitants in Arizona; however, nesting records are rare (Phillips et al. 1964, Phillips 1968, Monson and Phillips 1981, Snyder 1998). The majority of the confirmed or suspected nestings we report correspond with the distribution map generated from breeding-bird survey results (Sauer et al. 1997). These include the northeast part of the state in the Little Colorado River valley of Navajo and Apache counties, southwest in the lower Colorado River valley of La Paz County, and in the extreme southeast in Cochise County. Rosenberg and Terrill (1986) listed the harrier as a possible nesting species for Apache County but made no specific references. Rosenberg et al. (1991) reported only two individuals in the breeding season along the lower Colorado River, near Topock, Mohave County, and near Blythe, Riverside County, California. Snyder (1998) suggested that harriers may nest "regularly but rarely" in northern and southeastern Arizona, but confirmation is difficult because of their ground-nesting habits. Although individual harriers have been observed during the breeding season, we have located only the following records of actual nesting.

The first reported Northern Harrier nest in Arizona (Bendire 1892) was near Laguna, 9 miles north of Tucson (Figure 1, locality 1), and contained two newly