

Autumn and Winter Breeding Records for the American Robin, *Turdus migratorius*

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We report autumn and winter breeding records for the American Robin (*Turdus migratorius*). We located a nest on the campus of the University of Columbia at Missouri, USA, active 12 to 15 October 1999. This late nesting record prompted us to consult the Cornell Lab of Ornithology's Nest Record Program and Bird Studies Canada's Project NestWatch. Of the 11 113 American Robin nest records in Cornell's database, 15 were active in September and three were active later than September. Of the over 23 000 nest records available from Bird Studies Canada one was active in September and one in October. All four of the latest nests contained nestlings and were active on 3 October 1964 in Massachusetts, 13 October 1932 in Manitoba, 18 November 1964 in West Virginia, and 8 January 1966 in Ohio. Eight of the ten nests monitored until outcome could be determined fledged young successfully.

Key Words: American Robin, *Turdus migratorius*, autumn nesting, winter nesting, Manitoba, Missouri, West Virginia, Ohio.

Recently, the breeding season of the American Robin (*Turdus migratorius*) was defined as going from approximately early April to mid-August with no mention of breeding activity occurring later than August (Sallabanks and James 1999).

On 12 October 1999 we located an active American Robin nest on the campus of the University of Missouri-Columbia, Boone County, Missouri, USA (38° 56' N, 092° 19' W). The nest was placed in a *Magnolia* approximately 2 m from a building. One young fledged on 12 October and a second fledged on 15 October when the nest contained one young. The young robins were being fed the berries of hawthorn shrubs (*Crataegus* sp.), a species commonly cultivated at the University. On 16 October there was no activity at the nest and we found one fledgling dead approximately 20 m from the nest. We believe this late nesting event was not anomalous, because on 12 September 1999 we found two freshly dead robin nestlings (basal 50% of rectrices still ensheathed) under a nest in a residential neighborhood approximately 600 m from the campus.

These observations prompted us to consult the Cornell Lab of Ornithology's Nest Record Program and Bird Studies Canada's Project NestWatch. The Cornell Lab's Nest Record Program contains over 20 000 records for the American Robin of which 11 113 (most before 1984) have been computerized. A search of the computerized records for late dates found 15 September records and three later than September. Nests active in September were from Nebraska (1; 1969), Tennessee (1; 1969), Ohio (1; 1966), Michigan (1; 1971), Illinois (3; 1969, 1970, 1973), Maryland (3; 1965, 1965, 1968), and Alaska (5; all from 1968). Most records in September were of nests apparently late in the nesting cycle with young near fledgling age. However, 3 of the 5 from Alaska were at the egg stage. Three nests from the Cornell database were

observed active later than September, 3 October 1964 in Massachusetts, 18 November 1964 in West Virginia, and 8 January 1966 in Ohio; all contained young. A search of approximately 23 000 records available from Québec, Ontario, Manitoba, Saskatchewan, Yukon and Alberta yielded one nest with young active in September (Québec; date not provided) and one nest with young on 13 October 1932 in Manitoba.

Ten nests, including ours, were monitored until outcome could be determined. Of these, eight fledged young, one failed, and one had an uncertain outcome.

Reproductive flexibility in birds is complex and may be influenced by an interaction of environmental factors such as predictive cues (e.g., photoperiod) and supplementary cues (e.g., food supply, temperature; see Hahn et al. 1997 for review). For example, fall breeding has been documented in the Western Scrub-Jay (*Aphelocoma californica*) and Acorn Woodpecker (*Melanerpes formicivorus*) in response to a late acorn crop (Cully 1987; Stanback 1991; Koenig et al. 1995). Fall breeding of the Tricolored Blackbird (*Agelaius tricolor*) has been attributed to an appropriate stimulus, flooding, that occurred out of season (Orians 1960). Fall and winter nesting records for Killdeer (*Charadrius vociferus*) in the southern U.S. were attributed to unusually warm weather over the last decade (Smith et al. 1999).

We have no way of knowing whether the fall and winter breeding records were simply a result of a prolonged breeding season or if breeding had been resumed after completing molt (or both). Additionally, we do not know what factors contributed to the fall and winter breeding records reported here. Conditions with the potential to prolong breeding in the American Robin include mild temperatures and abundant food crops. Urban areas or even individual buildings can produce mild microclimates because concrete streets and buildings may retain or create heat prolonging

warmer temperatures into fall and winter. American Robins are common breeders in urban and suburban areas and all but five of the records described here were classified as either urban or suburban (the five may have been associated with a human setting but location information was insufficient). All of the late records from Alaska, for example, were of nests constructed on or in buildings. Unusually late or abundant food crops may also have the potential to induce or prolong breeding as reported for other taxa. Although we observed robins feeding their young hawthorn berries at the Missouri nest, we do not know if this crop was atypically late or abundant. These data suggest that fall breeding by the American Robin may be regular in some years. Indeed, in Missouri, nests under construction have been observed as late as 18 August (Jacobs and Wilson 1997). Assuming a 13-day incubation period and a 13-day nestling period (Sallabanks and James 1999), a nest under construction on 18 August would fledge around mid-September. Additionally, breeding bird atlases from the Maritime Provinces and Québec report robin nests with young until mid-September (Erskine 1992; Gauthier and Aubry 1996). More study is needed to assess the relationship between breeding season length and reproductive fitness of the American Robin.

American Robins usually complete their prebasic molt by September (Pyle 1997) and in British Columbia gonads of both male and female robins are inactive in July (Kemper and Taylor 1981). It would be interesting to know if the fall and winter breeding robins had completed their prebasic molt and resumed breeding, arrested molt in order to breed, or had not yet initiated molt.

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