

lems would certainly be exacerbated if the gulls began to nest as well. Several large colonies (>10,000 nests) exist on the lower Great Lakes and there is little suitable nesting habitat left. This makes a change to roof-nesting even more likely.

Acknowledgements

We thank D. Armchuck, R.M. Bollengier, R. Jackson and T. Moulton for providing unpublished information and H. Boyd and S.G. Curtis for commenting on an earlier draft.

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Early Nesting by House Finches in Ontario

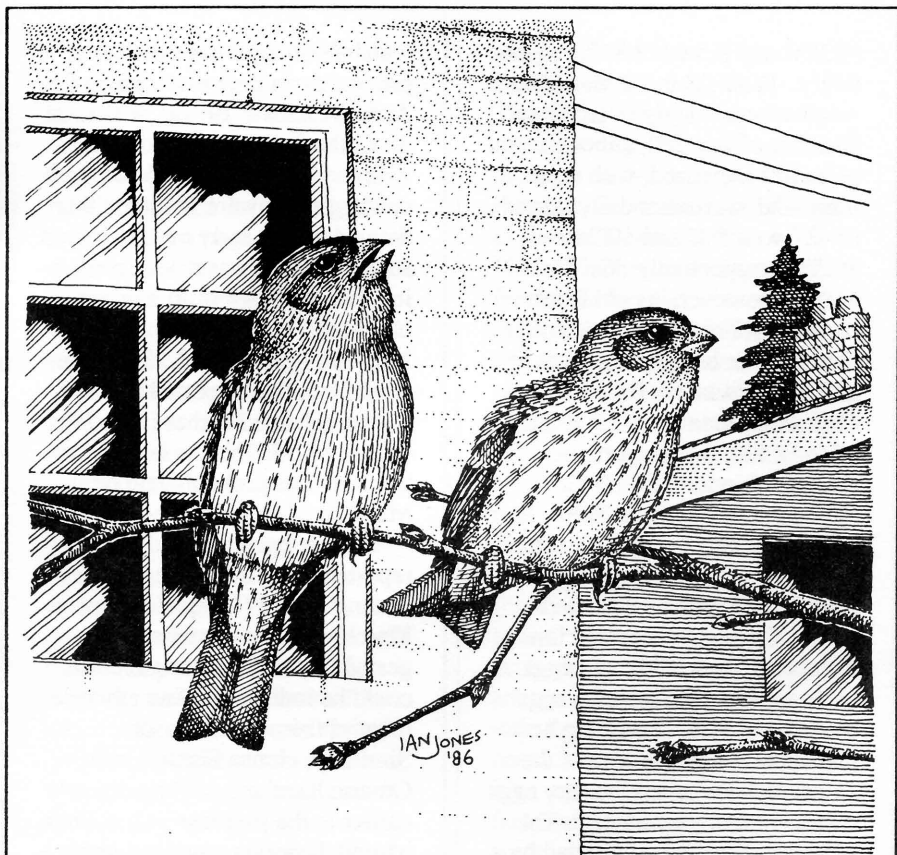
by
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The breeding season of the House Finch (*Carpodacus mexicanus*) commences in late February to late April from the southern to the northern extreme of the species' range (Harrison 1978). In Ontario, the majority of nesting activities take place in May and June. Here, I report on early nesting, in March, by Ontario House Finches and comment on the factors that may promote early nesting in this species.

On 19 March 1987, in a resi-

dential area of St. Catharines, Regional Municipality of Niagara, Ontario, I observed a male House Finch singing from eaves directly above a small Chinese juniper (*Juniperus chinensis*). Soon thereafter, a female finch emerged from the tree and the pair flew off. Suspecting a nesting site, I examined the tree closely and discovered a complete nest positioned about 1.4m from the ground. The cup-shaped nest was composed of coarse grasses and rootlets, its rim

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House Finches drawing by *Ian Jones*. Originally published in the *Atlas of the Breeding Birds of Ontario*.

fringed with leaves of dusty miller (*Centaurea* sp.), and lined with finer grasses, a frazzled cigarette filter, and more leaves of dusty miller. On 21 and 23 March the nest contained one and three eggs, respectively. During the same period I scouted three other neighbourhoods of St. Catharines, which in previous years had been particularly active nesting areas, and found four additional nests in various stages of construction.

Two nests were located in Chinese junipers and two were in eastern red cedars (*J. virginiana*). These nests ranged in height from 1.9 to 2.2m and were being constructed of grasses and rootlets.

The weather during March 1987 at St. Catharines was mild, with an average temperature of 2.7°C. The week of 16 to 22 March had abundant sunshine and the minimum and maximum daily temperatures ranged from -7.1 to

-0.8°C and 3.5 to 12.8°C, respectively. From 23 to 30 March the weather was mainly overcast and 27.6mm of rain fell, although temperatures increased, with minimum and maximum daily ranges of -2.0 to 4.5°C and 10.2 to 19.5°C, respectively. On 31 March, however, a cold front passed over southern and central Ontario that brought snow, sleet and strong winds. The St. Catharines area received 18.8cm of snow and the temperature dropped to a low of -5.0°C.

On the day after the storm four of the five nests, including the one first discovered on 19 March, were found filled with wet, packed snow. One nest contained four eggs, two nests held three eggs each and one nest had two eggs. Remarkably, the remaining nest had survived the ravages of the storm and contained four dry eggs that were being incubated. The surviving nest was supported by a tall (3.2m) Chinese juniper that had been bound with twine in a helical fashion in order to minimize snow damage to its branches. Apparently, the tight binding of the branches had prevented snow from being blown into the tree and nest. On 14 April there were four nestlings two to three days old in the nest.

Although House Finches have been observed carrying nesting material as early as March at Niagara-on-the-Lake, Regional Municipality of Niagara, Ontario (James 1978), the earliest date on

which fresh eggs had been noted previously in the province was 26 April (Kozlovic 1987a) in 1985 at St. Catharines. Four nests, two with three eggs each and two with one egg each, were found on this date. Another early nesting record for the species was a nest, containing five nestlings 11 to 12 days old, found at St. Catharines on 26 May 1983 (pers. obs.). Since the modal incubation period of Ontario House Finches is 13 days (Kozlovic 1987b), the last egg in this nest was probably laid on 2 May.

In New Jersey, Leck (1987) reported cases of House Finches nesting earlier (in April and even March) in recent years and suggested that these nesting records could be indicative of an advancement of the nesting season. Similarly, House Finches in Ontario have nested progressively earlier in the past few years. Such a trend, however, need not imply a seasonal advance of nesting. Since the eastern population has been increasing rapidly (Robbins *et al.* 1986), House Finches have recently become numerous in many regions of their new-found range. In any large population there will be variation in the onset of nesting, and more finches may now be nesting early in the season.

Weather conditions, particularly temperature, appear to have a strong influence on House Finch nesting activities. In Colorado, during spells of warm weather in autumn and winter, Bergtold

(1913) observed House Finches searching for suitable nesting sites, gathering nesting material and actively building nests.

Furthermore, males, which were relatively silent during the cold months, often began to sing on mild, sunny days. However, these behaviours stopped upon the return of cold weather. The extremely early nesting activities of House Finches at St. Catharines seem to have been induced by a spell of warm weather. In 1987, southern and central Ontario experienced the warmest March since 1977, with the average temperature being two degrees above normal (Scholefield 1987). The total hours of bright sunshine was well above normal and precipitation amounts were below normal for the month. These "early spring" weather conditions persisted long enough to allow finches to reach the egg-laying stage.

Unfortunately, most of the clutches froze after a sudden return of inclement weather; a consequence of early nesting that has been reported elsewhere (Nice 1957) for this species.

In addition to favourable weather conditions, food availability is believed to be important in the timing of breeding, since females may be cued to breed when they have acquired sufficient nutrients to form eggs (Perrins 1970). Experimental supplementation of food abundance has been shown to seasonally advance breeding in Red-winged Blackbirds (*Agelaius*

phoeniceus) and other species (see Ewald and Rohwer 1982).

Therefore, I suggest that food set out at feeding stations may also promote early nesting in House Finches. Since their introduction to eastern North America in 1940, House Finches have depended on feeders during the winter months (Elliott and Arbib 1953), and with the growth of the population, surveys have recorded a marked increase in the number of finches attending feeding stations (Burt and Burt 1984; Dunn 1986). For instance, flocks of more than 100 birds have been reported at one feeding station at St. Catharines (Foley 1983). Thus, early in the season, when natural food items such as seeds of weeds and grasses are not abundant, feeders may provide the critical food resources necessary for egg production. This notion is supported by the fact that three of the nests found were in the proximity of known feeding stations.

To date, these observations represent the earliest records of nesting for the House Finch in Ontario. The unusually mild weather conditions in March 1987, in concert with readily available food offered at feeders, appear to have provided a favourable environment for breeding much earlier than is usual in the season.

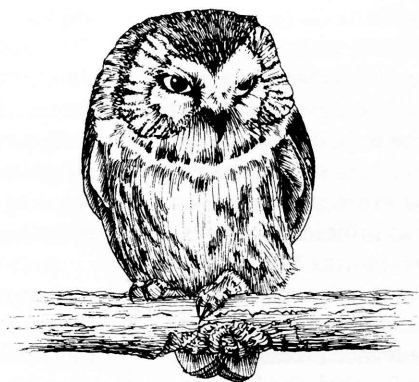
Acknowledgements

I thank the people of St. Catharines, Ontario for kindly allowing me access to their proper-

ty. Meteorological data were provided by K. McConkey of the Niagara District Weather Office. I also thank R.D. James for his constructive comments on an earlier version of this manuscript.

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Northern Saw-whet Owl / drawing by John Schmelefske

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