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THE WINTER DISTRIBUTION OF THE HOUSE FINCH IN KANSAS

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The House Finch (*Carpodacus mexicanus*) is relatively new to Kansas. It had existed in extreme southwestern Kansas for many years, but this finch has recently begun to expand across Kansas in a generally northeast direction, first as winter visitors, then as nesting individuals (Elder 1985).

The former range of the House Finch was west of the Great Plains. However, the species was artificially introduced to the East Coast (on Long Island, NY) in 1940, when pet dealers released them to escape prosecution for transportation and possession of a protected species (Elliot and Arbib 1953).

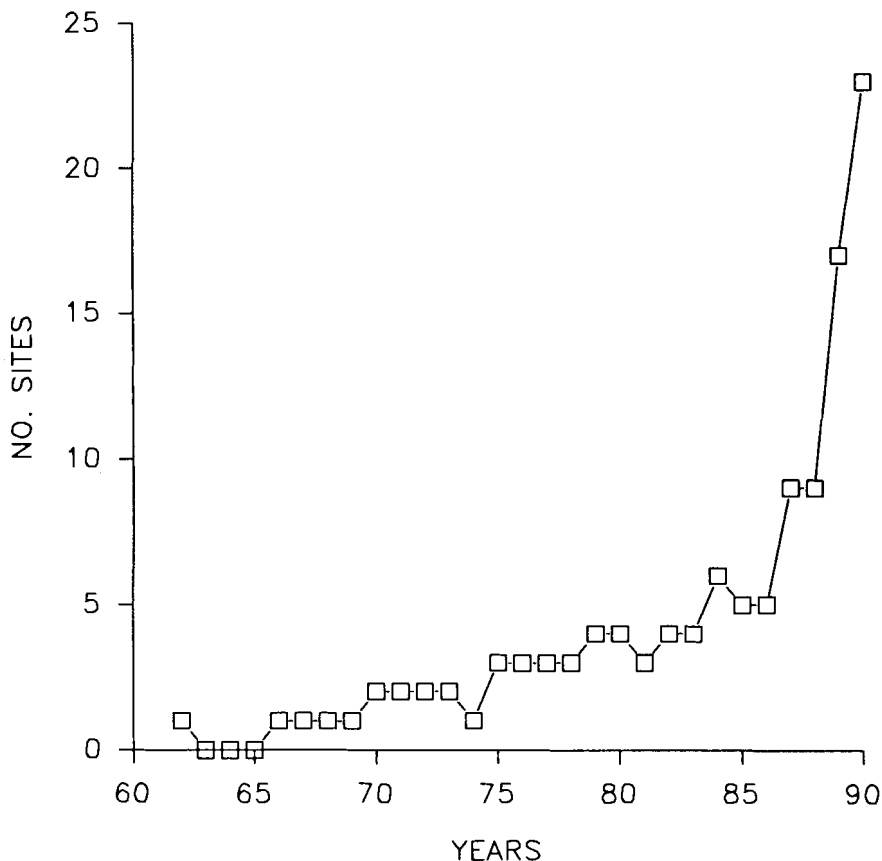


FIGURE 1. The number of sites reporting House Finches on Christmas Bird Counts in Kansas from 1962 to 1990. The sighting in 1955 is not included.

The House Finch adapts well to urban areas and will come to feeders, so it began to slowly spread through the East. An increase in the House Finch has been documented in Illinois (Robinson 1989), Minnesota (Eckert 1989), and South Dakota (Howitz 1989) on Christmas Bird Counts in the last half of the 1980's. Although unpublished, we know it has invaded Iowa and Missouri, as well (C. Ely pers. comm.). Possibly then, an eastern population of House Finches is invading eastern Kansas. The objective of our study is to investigate the expansion of the House Finch across Kansas.

Materials and Methods

Data were collected as sightings on the Christmas Bird Counts (CBC) from all over the state and published in the March issues of the Kansas Ornithological Society Bulletin. The first CBC published in the Kansas Ornithological Society Bulletin was for the winter of 1949 (Goodrich 1950).

Results

Although there are records of House Finch sightings in Kansas from 1882 (Menke 1894), the first observation on a CBC was in 1955 in Clark County (Baker 1956). Two birds were seen, but there were no CBC's submitted from Clark County for the years preceding or following.

After another record in 1962 in Ellis County, annual sightings within the state began in 1966. Since that time, the number of CBC's reporting House Finches has increased dramatically and spread across the state (Figure 1).

In 1990, 23 counties reported House Finches on their CBC's, six of which were first sightings, and three of the seven had conducted previous CBC's. The six new counties were Phillips, Seward, Riley, Jefferson, and Pawnee-Rush. Figure 2 is somewhat limited

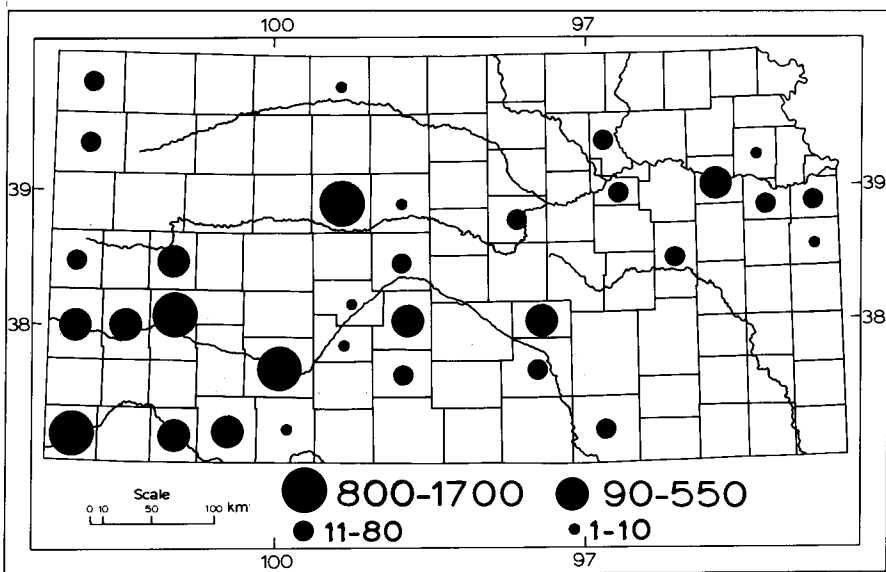


FIGURE 2. The number of House Finches seen on Christmas Bird Counts in Kansas since 1955, arranged by county.

since every county does not submit a CBC, but it does show where the highest numbers of House Finches are found. The highest numbers from the most recent count are all in western counties, except for Riley County, which had 414 House Finches seen (Table 1).

In Figure 1, valleys occur when a county that had House Finches previously did not submit a CBC for that year, or, as with the early sightings, a bird that was seen in Ellis County in 1962 was probably a winter visitor, because another one was not seen until 1966.

Figure 3 has several peaks which can be explained. The peak in 1970 occurred when

TABLE 1. The counties from which the four highest numbers of House Finches were recorded on CBC in 1990.

Site	County	Total
Garden City	Finney	817
Western Stafford	Stafford	543
Manhattan	Riley	414
Cimarron National Grasslands	Morton	245

176 House Finches were sighted in Ford County, compared to 52 the year before and 18 the year after. Again Ford County has a peak in 1980 with 332 birds compared to seven the previous year. No CBC was submitted the following year. In 1987, Hays dropped from 462 to 63, which accounts for the valley, although four new counties reported House Finches that year. In 1989 and 1990 the number of House Finches seen on CBC's has increased abruptly, due to large increases in the number of House Finches seen in counties which previously had the bird, and the addition of new counties. In 1990, 2,807 House Finches were seen on CBC's in Kansas.

The most illustrative data were from those site that had at least one CBC before the first House Finch record, and have had continuous sightings since, without discontinuing the CBC. Sixteen sites fit these criteria.

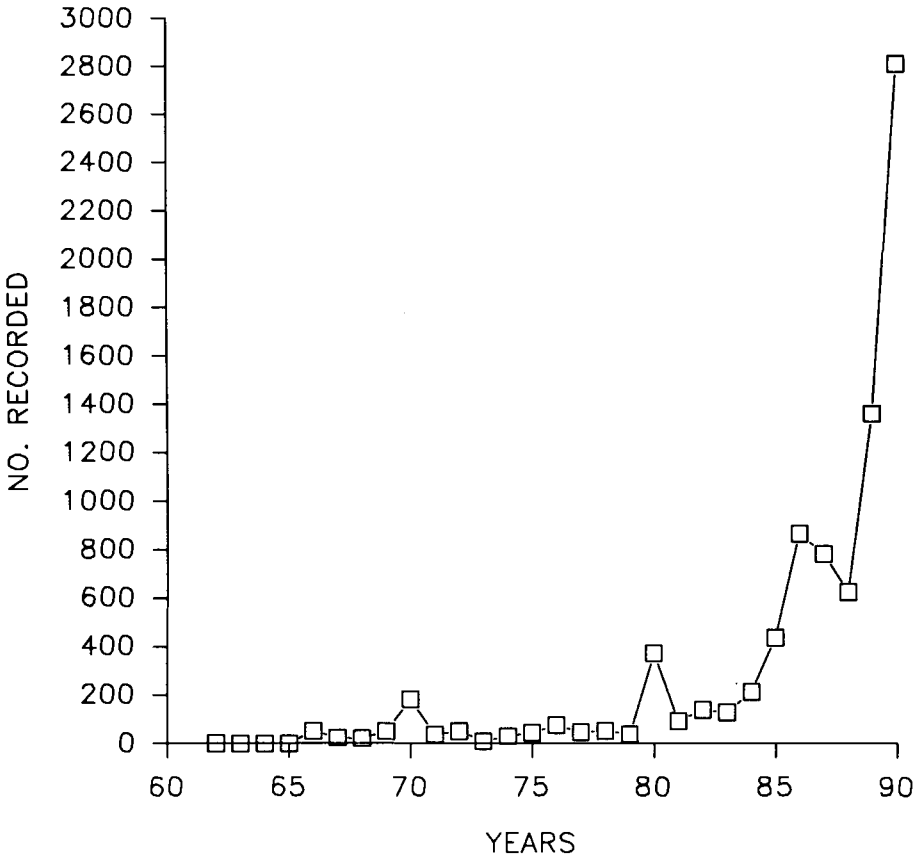


FIGURE 3. The total number of House Finches recorded in Kansas on the Christmas Bird Counts from 1962-1990.

According to the 1990 Kansas Winter Bird Feeder Survey, the House Finch was the tenth most abundant bird at backyard feeders (D. Podrebarac, unpubl.).

Discussion

There are several limiting factors to the accuracy of these data. In 1990, 35 counts were submitted (Zimmerman 1991), representing 32 Kansas counties. This left 76 counties unaccounted. Only three sites have submitted a count every year (two of which were from the same county). Thirteen counties reported House Finches on their first CBC, so we do not know when the birds first appeared in those counties. Concerning the CBC itself, party hours spent and habitat covered could well affect the count. The sudden increase in sightings could also be attributed to an increased awareness of the House Finch in the last few years.

The eastern population of the House Finch has probably reached Kansas, which could account for the sudden rise in extreme eastern Kansas sightings. A genetic study of the eastern and western populations could determine the origin of the eastern Kansas birds, and if any genetic differences had arisen during their separation.

Acknowledgements

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THE FOOD HABITS OF BARN OWLS IN PINYON-SAGE HABITAT

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On 9 May, 1988, in southeastern Lassen County, California, two Barn Owls (*Tyto alba*) were flushed from a pinyon pine (*Pinus edulis*), and 13 owl pellets were collected from the base of this tree. The area from which the pellets were collected is approximately 35 mi northwest of Reno, Nevada. The habitat was pinyon-sage. The objective of this paper is to assess the food habits of these birds in this particular habitat.

Methods

The contents of each pellet were examined under a dissecting microscope and based on the characteristics of the skulls, teeth, and hair were identified to genera, or to species when possible. References giving the ranges and habitat preferences of potential prey species were also consulted to aid in identification (Ingles 1965). The prey items making up the pellets were tallied by number of individuals, frequency of occurrence, and by percent of total pellet weight.

Results and Discussion

Small mammals made up 100% of the diet of these Barn Owls, with 23 sage voles (*Lagurus curtatus*) constituting most of the diet. Sage voles accounted for 60% of the total number of prey items. They were located in 61% of the pellets and contributed 70%

of the total weight. Ten *Peromyscus* were found in the pellets, accounting for 26% of the prey items. They were found in 46% of the pellets and comprised 18% of the total weight. It is likely that these were pinyon mice (*P. truei*), however deer mice (*P. maniculatus*) also could have occurred in this area. Three Great Basin pocket mice (*Perognathus parvus*) were found in the pellets. They were found in 23% of the pellets and were 6% of total weight. The remains of two western harvest mice (*Reithrodontomys megalotis*) were found in one of the pellets, contributing about 6% of total weight.

Numerous pellet analyses studies have assessed the food of Barn Owls in North America (Bent 1938, Wallace 1948, Craighead and Craighead 1956, Marti 1969, Fisher 1974, Rudolph 1978, Knight and Jackman 1984). These studies indicate that Barn Owls feed primarily on rodents, with voles frequently accounting for the majority of the diet. Other mammals, birds, fish and invertebrates are occasionally eaten when rodents are scarce (Fisher 1974). Our analysis is consistent with these studies. Deer mice, western harvest mice, and Great Basin pocket mice have been specifically reported from other analyses of Barn Owl pellets, but the literature makes no mention of sagebrush voles or pinyon mice. It is not surprising, however, that these species would constitute the bulk of these pellets in this habitat, where these species would be ecologically equivalent to other species of voles and mice reported in the literature.

In interpreting these results, it is important to recognize that they are based on a one-time collection of pellets and that the diets of Barn Owls in this area may change seasonally and annually as the abundance of the prey species changes.

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ASH-THROATED FLYCATCHER AND PROBABLE WESTERN SCREECH-OWL NESTING IN MORTON COUNTY, KANSAS

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In February 1990, 32 bluebird and six screech-owl nesting boxes were placed along the Cimarron River in Morton County, Kansas. This was to explore the possibility that such southwestern species as the Ash-throated Flycatcher, *Myiarchus cinerascens*; Mountain Bluebird, *Sialia currucoides*; and Western Screech-owl, *Otus kennicottii*, might use them. These boxes were checked three times in April and May 1990, but no use by these species was noted. However, when the boxes were cleaned in February 1991 an old nest in one box contained a nest with cattle hair suggesting it might be that of the Ash-throated Flycatcher, perhaps nesting after the last nestbox check on 22 May 1990.

Two active Ash-throated Flycatcher nests were in the boxes on 10 June 1991. One nest contained four eggs and the other had five eggs. The five eggs hatched the next day. The nest cup of these flycatchers consisted almost entirely of hair shed by cattle.

The Ash-throated Flycatcher was first collected in Kansas 7 May 1950 (Graber & Graber 1950). The Grabers' suspected this flycatcher to be a low density breeding bird in

southwest Kansas. Additional collections were made in 1963, 1964, 1965, 1967 and 1971. Jim Rising (Rising 1974) stated, "Doubtless breeds in low density along the Cimarron River in extreme Southwest."

On 5 July 1983 Roger Boyd, W. Stark and T. Wagner (Boyd 1985) observed a pair of these flycatchers feeding three fledged young in Wolf Canyon, Meade Co. This was the first and only previous documented nesting in Kansas.

Western Screech-owls were first recorded in Kansas on 11 May 1985 by Scott and Diane Seltman (pers. comm.) along the Cimarron River barely inside the Kansas-Colorado line. Other birders continued to report these owls in this area. A single nest box was placed in February 1990 and was used by a red and gray phase Eastern Screech-owl. A second box was added about 50 yards from the first in 1991. One box contained two gray screech-owls with 5 eggs on 9 April 1991. The box was revisited to test possible response to recorded calls. There was no response to the Eastern Screech-owl tape but one owl appeared in the box entrance in response to the western call. This bird did not leave the box and eventually disappeared back into the box. A second box also housed a single adult gray owl and 4 eggs. This bird did not respond to either the eastern or western recorded calls.

The nestbox check on 22 May 1991 revealed one adult gray screech-owl with four newly hatched young in the second box. This bird also did not respond to either of the recorded calls. This represents the first probable nesting of the Western Screech-owl in Kansas.

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