

THE HOUSE FINCH: A NEW EAST COAST MIGRANT?

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Presented at the Annual Meeting of the Eastern Bird Banding Association, April 22, 1961, at East Stroudsburg, Penna.

"If in some way the American House Finch could be induced to come east, and the English Sparrow could be given papers of extradition, the exchange would be a relief and a benefit to the whole country."

--- Leander S. Kenyon, in Birds and Nature XII.1.24 (1902)

In our self-consciously scientific and supposedly more sophisticated age, this expression of hope by an author of almost 60 years ago, in a publication which failed to survive the commercial processes of natural selection, may sound naive. Nevertheless, part of the hope is now being fulfilled. We need not indulge in Keyser's anthromorphism or speak of the House Finch as "blithesome" and "an attractive little fellow" to derive satisfaction from its presence in eastern North America and from studying its adaptation to its new environment.

The House Finch (*Carpodacus mexicanus*) is admitted to the scientific literature on the basis of a 1776 description from the Valley of Mexico by Müller (A.O.U. 1957), but a species with such a marked preference for a hemisymbiotic relationship with man must have been observed by the conquistadores and by the misionarios who advanced northward through the desert states and the Central Valley of California to the region of San Francisco Bay. Early descriptions of its range (Ridgway, 1887) locate it, so far as the United States is concerned, as from the Rocky Mountains west to the Pacific Ocean, north about as far as 40° North Latitude in the interior (the parallel of Boulder, Colorado, Provo, Utah, and Carson Sink, Nevada), but extending farther northward along the coast of southern Oregon.

Ridgway in his Manual (1887 to 1900) recognized only two races, and only one (*C. m. frontalis*) occurring in the United States. Its range extended southward into much of Baja California, and about 1,200 miles in western mainland Mexico. The "splitters" have tried to separate the species into a number of races, but as Ridgway pointed out, the characteristics relied upon for this purpose are independent of geography and the variations cited are to be found within the House Finch population in any area if enough specimens are studied. Except for a race confined to the offshore islands of California and one which brushes the Texas border in the middle reaches of the Rio Grande, it remains true that all United States House Finches are assigned to *C. m. frontalis*.

The species' range has not been so constant. The House Finch spread northward, about the turn of the century, into Idaho and southeastern Wyoming (A.O.U. 1910). Later it reached northern Wyoming (A.O.U. 1931). For almost half a century the eastern limit of its range was given as "western

Kansas and middle Texas" (A.O.U. 1886-1931). The striking fact is that the bird was not recorded as occurring casually anywhere east of the 100th meridian. It is not mentioned even as a hypothetical in the exhaustive Bird of Minnesota (Roberts, 1932). Not only was the species virtually non-migratory: it enjoyed unusual immunity to accidental dispersal by weather formations.

The absence of eastern records is especially remarkable in view of the heavy traffic in House Finches as cage birds. With the burgeoning of the fruit industry in California, the species was regarded as a pest and widespread efforts were made to eliminate it by shooting and poisoning (Wheelock, 1904). In an effort to make the bird pay for its own extirpation, it was trapped by the thousands and sold, for an average of 25 cents (Wheelock, op. cit.). Many birds were shipped to the East; one estimate is that the total exceeded 100,000. The trade may have been reduced by the wild bird protection acts, but it was still flourishing in the 1930's. One of us (G.C.) received a pair, bought as a gift in a pet shop in Elizabeth, N.J. in 1933. They were untamable and had obviously been trapped as adults. Consideration was given to releasing them, but the legal prohibition on this, reinforced by doubts of their ability to survive in the wild, resulted in their being presented to the New York Zoological Society. It is inconceivable that there were no other cases of similar origin in which House Finches escaped or were released in the East. Consequently, any "records" which may now be exhumed of House Finches in the East during this period (approximately 1900-1940) must be rejected.

The first known and deliberate introduction of the species in the East was in Brooklyn in 1940 and has been well documented (Elliott and Arbib, 1953). It is probable but no longer provable that there were, simultaneously, other releases by worried pet shop proprietors in Manhattan. The survival of these birds in a feral state was first established at Jones Beach, N.Y. in April, 1941, and their nesting was observed in Babylon in May, 1943 (Elliott and Arbib, loc. cit.). These locations are both on Long Island. These authors also record the first "unimpeachable" record of a House Finch on the eastern mainland, at Tarrytown, N.Y. in May, 1948, followed by records at Bedford and Armonk (all three locations in Westchester County) in 1951. On Dec. 23, 1951, one of us (H.P.G.) obtained the first record for Connecticut, at Riverside, from a sub-permittee who mistook it for a Purple Finch (*Carpodacus p. purpureus*). A breeding colony was found nearby in 1952.

It is often assumed that these mainland birds were descended from the colonists on Long Island. There is not a shred of evidence for this. There are as yet, in the Fish & Wildlife files, no records of House Finches banded on Long Island and recovered on the mainland to the north. On the other hand, two banded at Riverside have been recovered on Long Island, one by Leroy Wilcox at Speonk and one by Geoffrey Gill at Hunt-

ington. It is possible that one or more breeding colonies existed for several years on the mainland. The report of a male "Purple Finch" in the breeding season at Manursing Island in Rye, N.Y., adjoining the Connecticut border, should now be discarded: recent experience has shown that misidentification of the House Finch is more probable than extra-seasonal or extralimital records for the Purple Finch. A sizable colony of House Finches was established in Ward-Pound Ridge Reservation in northern Westchester at least as early as 1954 and possibly earlier; the curator of the museum there observed them competing with Purple Finches at his feeders in February, 1954, and fledglings were seen in the reservation in the summer of that year (Wheeler).

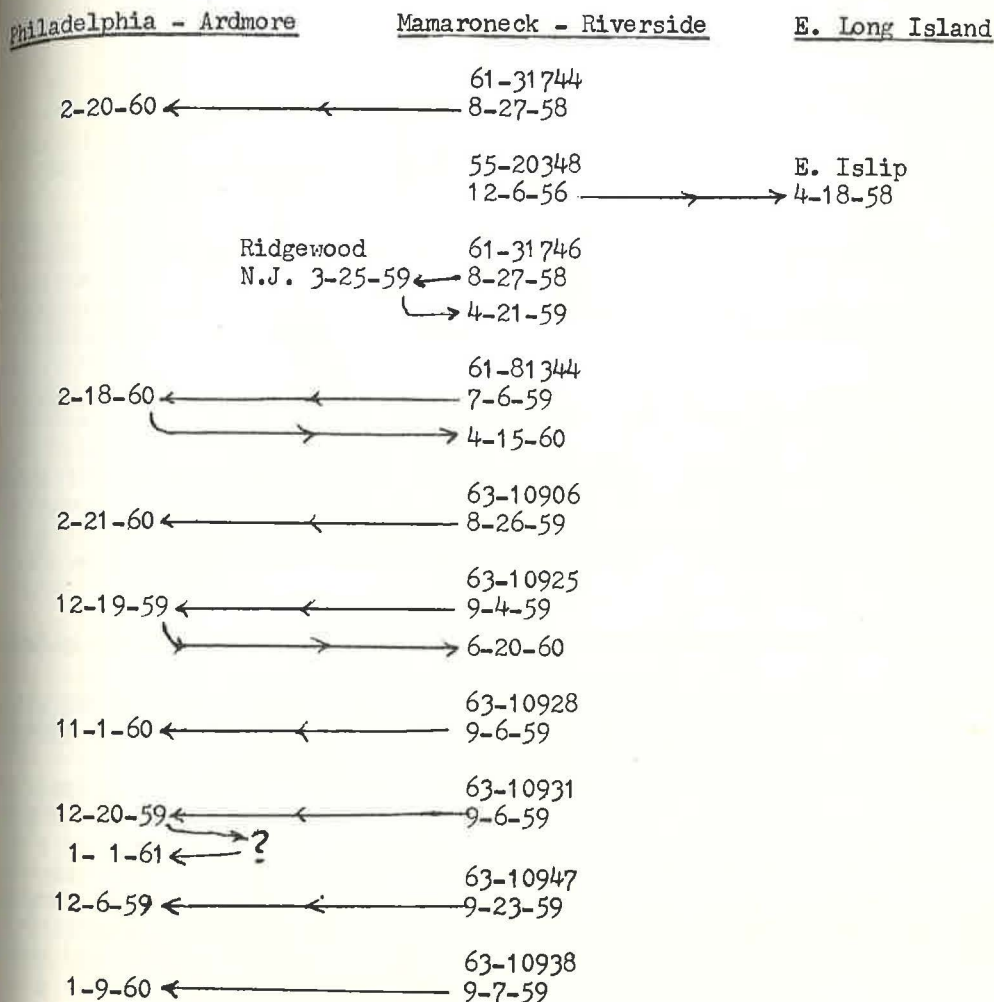
The species was first recorded in New Jersey in 1955 and quickly spread through the Camden-Philadelphia metropolitan area. Most of these occurrences were in winter, but some pairs bred in Union, N.J. in 1959; adults with fledglings were banded there in 1960 (Knorr). The most numerous bandings and the most interesting records from the Philadelphia area are reported from Ardmore, eight miles northwest of the city center. Dr. E. Wayne Marshall, Jr. first observed the species on Dec. 29, 1957, and by March 31, 1961 had banded 317. His earliest fall date for the species is Nov. 8 (in 1958) and his latest spring date is April 4 (in 1961). Marshall writes: "The arrival and departure dates suggest the House Finches are establishing a migration pattern and schedule. My banding records, return and repeat records show that these birds are in this area only during the winter months." From the Pennypack Nature Center, the same seasonal pattern of occurrence is reported (Reichel).

In its original habitat, the House Finch is virtually non-migratory, although there is a seasonal dispersal after the young are fledged, and flocks of 2,000 or more birds are reported feeding together in winter. The encyclopedic Birds of California makes no mention of migration (Dawson). It is difficult to establish a clear pattern of migration in the East from the records so far available, but we believe that one is emerging, possibly comparable with the partial migration of the Starling (*Sturnus vulgaris*). The data we have suggest that the incipient migration route is not coastal, but inland. It is noteworthy that although our stations in Riverside and Mamaroneck are only nine miles apart, in similar terrain, and within half a mile of Long Island Sound, neither of us has recovered any of the other's banded birds. There are sufficient records from several locations in northern New Jersey, from New Brunswick and Princeton, to suggest that the birds take a fairly direct route from the Riverside-Mamaroneck areas to Philadelphia, roughly following the main line of the Pennsylvania Railroad.

There is no evidence that this seemingly migratory movement is dictated by weather conditions or food supply. The dispersal from the breeding areas begins in September, soon after the last young are fledged, and long before the onset of severe weather. Furthermore, a residual popu-

lation remains in the area (or is supplied by an influx from another, as yet undetected, breeding area) throughout the winter. The House Finch shows a partiality for sunflower seed, which may partly determine its distribution around feeding and trapping stations. But this feed is available the year around at our stations, so there is no nutritional need for dispersal or migration.

Below is a schematic representation of the recoveries of banded House Finches which have travelled from Connecticut, Westchester County or Eastern Long Island to the Philadelphia area, or vice versa. It will be seen that at least two birds made a round trip which may be considered migratory in pattern, and a third probably did so. Note that the band number is given in the column where banded.



Philadelphia - ArdmoreMamaroneck - RiversideE. Long Island

62-51476 2-28-60	→	→	→	Speonk 4-14-60
62-51482 3-5-60	→	→	→	Blue Pt. 4-28-60
63-00167 12-24-59	→	→	→	Riverside 3-19-61
63-00185 12-20-59	→	→	→	Mamaroneck 4-16-60
54-73919 1-24-60	→	→	→	Mamaroneck 5-2-60

Distances (airline but over land):
 Ardmore - Mamaroneck: 115 miles.
 Ardmore - Riverside: 124 miles.
 Ardmore - Speonk: 150 miles.

It may seem presumptuous, before this audience, to discuss the differentiation between the House Finch and the Eastern Purple Finch. However, it appears advisable to do so for two reasons. Virtually every eastern bander, regardless of his experience, has mistaken his first House Finch for a Purple, and correction of the error is a matter of chance. Also, the handbooks and field guides used by most eastern banders are defective or misleading. The species is not described in the Minnesota Manual (Roberts, 1955). The latest edition of the most widely used guide (Peterson, 1947) does not list it. The Audubon Bird Guide (Pough, 1946) describes and illustrates it, but emphasizes the least reliable diagnostic features. So does A Field Guide to the Birds of Texas (Peterson, 1960). The first impression of Complete Field Guide to American Wildlife (Collins, 1959) was subject to the same criticism, but later impressions have been revised in accordance with our suggestions.

For birds observed but not trapped, body build is extremely characteristic. The Purple Finch is broad-shouldered and built short and heavy, like a House Sparrow (*Passer domesticus*). The shorter central retrices give it a pronounced notch in the tail, which is usually but not invariably detectable. The upper line of the culmen in silhouette is straight or virtually so. The male is best described in Peterson's phrase as appearing to have been "dipped in raspberry juice". Females and immatures have the oft-remarked contrasting lines on the lower jaw. But, most important, they tend to have clear, whitish underparts - the ladies might call them antique white or pale ecru - with heavy spotting. The spots are usually of a raindrop shape. In some individuals this spotting extends to the flanks and some may persist there after the young male has assumed the

purple. But if the spotting extends to the lower tail coverts, it is usually indistinct.

The House Sparrow is noticeably sleeker, with the body build of an American Tree Sparrow (*Spizella arborea*). The males are not necessarily "brighter red" than the Purple Finch, as is often stated. Their reddish coloration ranges all the way from tawny or orange, through rose and old rose, to something akin to "raspberry". We have trapped as an immature, banded, and retrapped as an adult male one individual so heavily colored that it could be identified only by the culmen, streaking and retrices. Red is usually lacking or obscured on the crown and nape, leaving the forehead contrastingly redder and brighter. The culmen is markedly convex (in both sexes), giving the species an aquiline or "Roman nose" profile. The tail, with retrices of almost equal length, appears square-ended. The males are consistently streaked on their dusky - not creamy white - flanks, and heavily streaked on the under tail coverts. Immatures are buffier, both above and below, than adults, but their most characteristic feature is the duskiess of the ground color of the underparts, including the tail coverts, coupled with heavy, longitudinal streaking. The shape of the streaks and their conspicuousness on the under tail coverts should be decisive.

It will be interesting to see whether natural selection or adaptation to climactic conditions results in the emergence - as in the Song Sparrow - of distinguishably darker races in the humid Northeast and in the still more humid coastal regions of Washington and British Columbia, to which the House Finch has recently spread.

The House Finch is extraordinarily adaptable and therefore presumably a mutable species, with a tremendous biological capacity. Except for game birds introduced as sedentary targets, the House Finch is the first avian exotic to establish itself in eastern North America since the Starling. It is therefore the first since banding became widespread. Banders have a unique opportunity to contribute to knowledge of the species' behavior in its new habitat.

Mamaroneck, N.Y. (Cant) and Riverside, Conn. (Geis)

MANAGING NETS IN THE WIND

The July-August 1959 issue (page 82) of EBBA NEWS has a suggestion for using split-shot to keep nets properly set in the wind. An improvement on this is suggested by Cyril T. Wolfling of Alden, N.Y. who writes: "I remedied the problem of nets and wind by stretching my nets in the cellar and then with a tube of Duco cement I tacked the net to the shelf strands about every 1½ feet on all four shelves. It takes only a tiny drop at each tacking area and the added weight for an entire net wouldn't equal one split BB shot (as was suggested in EBBA NEWS). The tiny droplet of cement tends to form a sphere and minimizes the tendency to catch itself on other strands - no more so than the knots at the intersections of the individual strands."
