

## HOUSE FINCH

## *Carpodacus mexicanus*

Other: Linnet, Rice Bird, Crimson-headed Finch,  
*Ainikana* (papaya-eater)

*C.m. frontalis*

### **naturalized (non-native) resident, long established**

The House Finch is a well known species from w. N America and Mexico that has been introduced successfully to e. North America in the 1950s and to the Hawaiian Islands in the mid-1800s (Long 1981, Lever 1987, Hill 1993a, AOU 1998). Although most reports put first introduction to Hawaii imprecisely as "sometime prior to 1870" (e.g., Grinnell 1911, Caum 1933, Bryan 1937a, Munro 1944, etc.), Thrum (1909) indicates that they were brought to O'ahu in or about 1859 by the Royal Agricultural Society from San Francisco on the ship *Felix* (Swedberg 1967a). This introduction was likely in response to an appeal by the agriculturist Marsh (1855), who was interested in introducing finches from the coast of California and Oregon to control insect pests, hoping that they "could probably be introduced at a small expense and...be of not a little service, while they would do no harm to fruit or grain". They have since become abundantly established on all eight *Southeastern Hawaiian Islands* from sea level to over 3000 m elevation on Maui and Hawai'i I (Berger 1972, 1981; Scott et al. 1986), and they have been recorded dispersing to the *Northwestern Hawaiian Islands* as far as Midway.

H. Schauinsland reportedly felt that House Finches reached Hawaii naturally although Palmer (*in* Rothschild 1900) doubted this. House Finches have been vilified in Hawaii for their potential harm to papaya plantations and other agricultural crops (e.g., Henshaw 1900b, Bryan 1915), but most authors believe that damage potential has been exaggerated (e.g., Caum 1933, Bryan 1937a, Fisher 1948c). Damage to a developing sorghum agribusiness on Kaua'i in the early 1970s prompted a study by HBAF to try and control House Finches and mannikins (Berger 1975a, 1981).

Little has been published on the introduction and spread of House Finches to the different Southeastern Islands (*cf.* Grinnell 1911), but by the 1880-1900s they were reported as common to abundant on ranchlands and in drier habitats (less common on wetter windward sides) of *Kaua'i* (Rothschild 1900, Bryan and Seale 1901), *O'ahu* (Finsch 1880, Bryan 1905b), *Moloka'i* (Perkins *in* Evenhuis 2007:142, McGregor 1902, Schauinsland 1906, Bryan 1908), *Maui* (Henshaw 1902a, McGregor 1902), and *Hawai'i I* (Henshaw 1900b, 1902a; Rothschild 1900). It was likely well-established on the other Southeastern Islands by this period, although it was not specifically noted for *Ni'ihau* until 1947 (Fisher 1951), when considered abundant, not reported from *Lana'i* until the 1910-1920s (Munro 2007), when considered common, and not reported from *Kaho'olawe* until 1981, when it was the most common bird species encountered (*cf.* Conant 1983a, Gon et al. 1992, Morin et al. 1998), including a high count of 93 there on the 2015 [Christmas Bird Count](#). They were found regularly on Ka'ula Rock off Ni'ihau during 1971-1998, with up to 40 there in Sep 1976 (USNC 2016), suggesting a breeding population given appropriate habitat there. These records, along with those from the Northwestern Islands (see below), reports of natural crossings (e.g., to Ni'ihau from Kaua'i; Fisher 1951), and observations at sea (see below), indicate that House Finches almost certainly spread to many if not all of the other Southeastern Islands naturally from O'ahu. Increases on Hawai'i I between the 1950s (Baldwin 1953) and 1970s (Banko and Banko 1980) indicate possible continued expansion on this island at this time. In the

1940s-mid 2010s, House Finches showed various trends in population according to [Christmas Bird Count](#) data, decreasing at Kapa'a, Kaua'i ([Graph](#)) and Volcano, Hawai'i I ([Graph](#)), increasing around Honolulu ([Graph](#); Williams 1987; though showing a slight decline in the 2010s), and showing no trends at Lihue and Waipi'o ([Table](#)). Single-location high counts reported on each island during 2010-2016 included 50 at the Lihue Airport, Kaua'i 19 Feb 2011; 120 at Ala Moana Park, Honolulu, O'ahu 16 Apr 2014; 278 on the Kualapu'u [Christmas Count](#), Moloka'i 21 Dec 2011; 83 at Manele Bay, Lana'i 14 Jun 2010; 100 at Pukalani, Maui 12 Feb 2014; and 300 at Pohakuloa Training Area, Hawai'i I 10 Feb 2014. House Finches breed in Hawaii primarily in Feb-Aug (Hirai 1975a, 1975b; van Riper 1976) and have nested as high up as the 32nd floor of a condominium in Honolulu (Berger 1981). House Finches have also been noted at sea off Hawai'i I, 30 km W of Kona 29 Oct 2011 ([HRBP](#) 6762), 32 km SW of Kona 12 Aug 2012, and 21 km SW of Captain Cook 20 Aug 2012.

There are four records of House Finch from the Northwestern Hawaiian Islands. At *Midway* one was found desiccated, apparently during fall (Nov?) 1972, and saved as a skeleton and some flight feathers (BPBM 147040). At *French Frigate*, individuals were present 29 Mar-29 May 1999 (male) and 17 Sep-2 Nov 2007 (first-cycle male; [HRBP](#) 5931-5932), and at *Nihoa* a female was present 13 Jun 1981 (Conant 1983b). Given the short-distant nature of House Finch migrations (Hill 1993a) and their moderately southerly distribution in N America, we agree with Conant that these birds most likely originated from Hawaiian rather than North American populations.

The subspecies of House Finch introduced to the Hawaiian Islands was *C.m. frontalis* of w. North America including California (Grinnell 1911, AOU 1957; PP examination), but see Wang et al. (2007). Much has been made of males in Hawaii having head plumage aspect in various shades of yellow and orange, with much lower frequencies of the bright reds that are more predominant in North American populations (*cf.* Grinnell 1911, van Riper and Hirai 1994). Grinnell (1912a; see also Grinnell 1912b, Moore 1939) even went so far as naming the House Finch in Hawaii a new *species* (*C. mutans*) based on this difference, an opinion which was immediately questioned (Phillips 1912) and has since been widely disregarded (e.g., AOU 1957). Rather, it has been documented that the extent of red in the plumage results from access to carotenoid pigments during molting periods, and that food resources for House Finches in Hawaii must be lacking to some extent in this regard (Phillips 1912; Brush and Power 1976; Hill 1993a, 1993b); of 24 specimens of males at BPBM in 2009, 7 were red, 12 were orange, and 5 were yellow (PP examination). Some differentiation in size has also occurred since introduction; e.g., wing morphology might differ between Hawaiian and Californian populations (Moore 1939) and individuals from O'ahu have longer wings and tarsi but shorter bills than those from Hawai'i I (Aldrich 1982; Hill 1993a, 1993b).

### [Acronyms and Abbreviations](#)

### [Literature cited](#)

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