

## GREATER KOA-FINCH

*Rhodacanthis palmeri*

Other: Orange Koa Finch, *Hopue* (but see Perkins 1903),

monotypic

**native resident, endemic, extinct**

The Greater Koa-Finch was common and apparently widely distributed in the drier habitats of *Hawai'i I* during the 19<sup>th</sup> century, but quickly met its demise within the last decade of that century (Grant 1995, Olson 1999b, Pratt 2005). Most records come from the slopes of Hualalai above Kona and Captain Cook, including the type specimens collected on 26 (*E* 2:22) or 28 (Munro 1944) Sep 1891 by Palmer (Rothschild 1892a). Perkins (1893, 1903, *in* Evenhuis 2007:314) continued to observe this species commonly in this area through 1896, noting them primarily at 1200 m elevation in Jun-Oct 1892 and at 990 m in Mar 1896, suggesting that the species may have undergone upslope migrations for summer or responded to variable distribution of food resources (see also James and Price 2008). At least 53 of 65 known specimens were apparently collected on Hualalai, many in the vicinity of Pu'u Lehua Ranch (1470 m elevation), a favored collecting area at the time (Banko 1979, 1986; Olson 1999b). Palmer collected several additional specimens without noting precise locality, but comparison of collection dates with his notes (since destroyed) by Rothschild (1900) suggest that one was collected near or above Ka'ohe Ranch along the sw. slopes of Mauna Loa (1600 m elevation) in Nov 1891, two were collected at Pu'u 'O'o Ranch near the Saddle Road at 1900 m elevation above Hilo in Mar 1892, and two more were collected somewhere in the Hilo-Volcano area in Jun 1892 (Banko 1986, Olson 1999b). Perkins (1903; *in* Evenhuis 2007:241, 276) also noted them in koa forests "some miles" above the Volcano House.

Although Berger (1972, 1981) questioned the occurrence of Greater Koa-Finches on the windward side of Hawai'i other evidence suggests an island-wide distribution in upland koa forests (Olson 1999b, James and Price 2008). Despite searches around Pu'u Lehua and elsewhere by Henshaw (1902a) and others (Amadon 1950, Baldwin 1944, Munro 1944, Richards and Baldwin 1953), the Greater Koa-Finch was not credibly recorded after Perkins' observations in Mar 1896. Perkins (1893) noted that many individuals had swelling of the feet and missing toes or claws, suggesting the onset of a widespread pandemic that quickly ran through the population; however, James and Price (2008) suggest that upland harvesting of *Acacia koa* trees, their favored food source, may have been of greater importance in the demise of this species. Subsequent unsubstantiated reports of this species from near Volcano in 1937 (*E* 5:32, 11:58, 12:48, 14:77), near Pu'u Lehua in 1967 (Banko 1986), and at Hosmer Grove, Maui, in 1961 (*E* 22:20), lack credibility. Based on Poisson analyses of persistence probabilities using confirmed and unconfirmed records, Elphick et al. (2009) estimated that the Greater Koa-Finch went extinct in 1897, with upper limit of 1900.

Greater and [Lesser](#) koa-finches were placed into the new genus *Rhodacanthis* by Rothschild (1892a), and this has been widely supported (AOU 1998, James 2004, Pratt 2005), although Amadon (1950), Greenway (1968), and others lumped this genus with *Psittirostra* (['O'u](#)) or *Loxoides* ([Palila](#)) for a time through the 1970s (see [Synonymies](#)). Two other species of *Rhodacanthis* resembling Greater Koa-Finch have also been found in the subfossil record of Kaua'i, O'ahu, and Maui (Olson and James 1982; James 1987; Burney et al. 2001; James and Olson 2001, 2005; Olson 1999b; Burney et al 2001; James and Price 2008). Another large finch from Maui was placed in a separate genus *Orthiospiza* (James and Olson 1991, James 2004).

[Acronyms and Abbreviations](#)

[Literature cited](#)

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