'AKEKE'E  

**Loxops caeruleirostris**

Other: 'Akea (< 1991), *O'u holowai*; Kaua’i ‘Akepa

**native resident, endemic, endangered**

The 'Akeke'e has been found chiefly at higher elevations (> 1000 m), only on Kaua‘i, and until the 2000s was considered fairly common to common. It was first collected by Wilson in 1888 above Makaweli and described as a new genus, *Chrysomitridops* (Wilson 1889a). Rothschild (1900) and others correctly placed it with *Loxops*, and Amadon (1950) considered it conspecific with other 'akepas, but it is now universally considered a full species (Pratt 1989b, 2005; AOU 1991, 1998, 2015; Tarr and Fleisher 1995; Lepton and Pratt 1997; see Hawa‘i Akea and Synonymies for more information on the taxonomic history of *Loxops* and species within). Wilson noted that it was unknown to other collectors on Kaua‘i (e.g., Knudsen; cf. not noted by Stejneger 1887a, 1889) and that it therefore must be uncommon (Wilson and Evans 1899). But other early naturalists (Rothschild 1900, Perkins 1903, Bryan and Seale 1915, Munro 1944) considered it numerous and occurring in flocks, once the challenging terrain of higher-elevation forests was penetrated (Banko 1979 summarizes information on 93 specimens known at the time). They were occasionally reported from below 1000 m, perhaps having been driven down by storms (Perkins 1903).

As with many other Hawaiian forest birds, there was a dearth of 'Akeke'e observations between 1901 (Bryan and Seale 1901) and 1940 but it was found to be fairly common again during the second half of the 20th century, albeit with a slight withdrawal in range to higher elevations (e.g., Richardson and Bowles 1964, Eddinger 1972, Walther 1995, Jacobi and Atkinson 1995, Lepton and Pratt 1997, Conant et al. 1998; *E* 22:1-3, 26:30-31; summarized by Banko 1984b). Sincock et al. (USFWS 1983c) estimated a total population of 5100 in 1968-1973, including a small isolated population of 17 birds on private lands atop Mt. Makaleha. Scott et al (1986) estimated 1700 during the HFBS in 1981, in an area where only 526 were estimated by the USFWS (1983c), Denny (1999) considered them common, and Foster et al. (2004) noted significant density increases between 1981 and 2000. However, populations appeared to undergo severe declines in both size and range during the second half of the 2000s (USFWS 2007, Camp et al. *in Gorresen et al. 2009*, Paxton et al. (2016) estimating a 48% decline on the Alaka‘i Plateau between 1981 and 2012, a 98% decline along with a severe contraction of range between 2000 and 2012, and a population of just 945 birds (range 460-1,547) in 2012.

Based on these declining populations, the 'Akeke'e became a candidate for State and Federal Endangered Species status in the 2000s (USFWS 2006, 2007b; see also Trombula et al. 2006) and was listed as an Endangered Species in 2010 (VanderWerf 2013a, Hammond et al. 2015, BLI 2016). Nesting success during 2012-2014 appeared to be high, suggesting that low survivorship may be the primary cause of these declines (Hammond et al. 2015), perhaps as related to avian diseases. By 2015 a captive propagation program had been initiated for the 'Akeke'e, and intensive studies were being undertaken on basic biology, movement patterns, population genetics, demography, and predation control as related to the its conservation (Crampton 2016). During 2010-2016
small numbers (usually ≤ 5 per day) were being found in the interior Alaka'i Plateau of Koke'e SP, with high counts of 8 on 10 Aug 2015 and 28 Feb 2016.

Acronyms and Abbreviations

Literature cited