

MAUI PARROTBILL

Pseudonestor xanthophrys

Other: Parrot-billed Koa Finch

monotypic

native resident, endemic, endangered

In the 1990s-mid 2010s, the Maui Parrotbill was restricted to an estimated 50 sq km area between 1,200 and 2,350 m elevation on the N slopes of Haleakala, *Maui* (USFWS 1984d, 2006; Scott et al. 1986; Simon et al. 1997, VanderWerf 2013a). They also showed up in the subfossil record on Moloka'i and both slopes of Mt. Haleakala down to 200 m elevation (Olson and James 1982b, James et al. 1987, James and Olson 1991), suggesting that they may have been widespread on Maui Nui before it submerged into four separate islands. Destruction of koa trees (Henshaw 1902a) and disease may have forced them relatively recently to higher elevations. Early naturalists (Rothschild 1900, Perkins 1903) noted that the parrotbill was close in structure to *Hemignathus* ([nukupu'us](#); see [Synonymies](#)) but that it may also have been a transitional taxon between thin-billed and thick-billed Drepanines. Later taxonomists (e.g. Amadon 1950, Raikow 1977) considered them closer to the thick-billed honeycreepers (e.g., *Psittirostra*) but recent analyses suggest that the earlier naturalists were correct, its closest relative possibly being the nukupu'us and [Akiapola'au](#) (Zusi 1989; Simon et al. 1997; Fleisher et al. 1998; Pratt 2001, 2005, 2014; James 2004, Lerner et al. 2011, AOU 2015). Palmer collected the type specimen 1 Aug 1892 and, unique among Drepanines, the original scientific name *Pseudonestor xanthophrys* (Rothschild 1893e) has not been challenged or modified by subsequent taxonomists (see [Synonymies](#)).

Early naturalists were fairly consistent in regarding Maui Parrotbill as a rare bird (Perkins 1895, 1903; Henshaw 1902a; cf. Banko 1986). Never-the-less, these naturalists collected at least 34 specimens (Banko 1979), primarily if not entirely upslope of Olinda in the Waikamoi watershed, now regarded as the w. end of the species' range. Following these early collections there were no observations of Maui Parrotbills, despite valiant attempts by Munro (1944, in Gregory 1929; *E* 2:47-48), until Richards and Baldwin (1953) collected one at 1940 m elevation in the upper Hanawi watershed 4 Dec 1950, near the heart of the parrotbill's range in the mid-2010s.

Another 27 years would pass before the next observation occurred, by Banko (1968; *E* 29:79-80), in upper Kipahulu Valley 29 Aug 1967, near the e. end of the parrotbill's range. Subsequently, Maui Parrotbills were observed in small numbers by most ornithologists visiting the upper N slopes of Haleakala through the mid-2010s (Berger 1972, 1981; Scott and Sincock 1977; Conant and Stemmermann 1980; Carothers et al. 1983; Scott et al. 1986; USFWS 1984d, 2006). Based on [HFBS](#) data from 1980, Scott et al. (1986) estimated a total population of about 500 individuals and found highest densities at 1,700-2,100 m elevations (see also Mountainspring 1987). Simon et al. (2002) and others (USFWS 2006, Brinck et al. 2012) found similar densities (about 0.4 birds per hectare) within the upper Hanawi watershed in 1992-2016, perhaps indicating a stable population. However, numbers at lower elevations within the range have apparently decreased due to malaria, degradation of habitat by ungulates, and other factors (Scott et al. 1985, BLI 2016), the population was considered possibly unstable by Gorresen et al. (2009), and low reproductive success was predicted to cause extinction within several

decades if these factors were not mitigated (*HE* 18[3]:3-4; see below). Brinck et al. (2012) estimated a population in the core area (excluding Kipahulu Valley and Waikamoi Preserve) at 421 (95% c.i. 209-674) birds. During 2011-2016, up to 5 per day were being observed in the Waikamoi Preserve (5 Aug 2015) and up to 8 in the remote Hanawi Natural Area Preserve (10 Apr 2011). Predation of a nestling parrotbill by a [Short-eared Owl](#) has been observed (Mounce 2008).

Attempts to propagate Maui Parrotbills began with the successful hatching of a chick in captivity in Mar 1999 (*E* 59:29) and a small captive breeding population was established by 2001 (USFWS 2006, Lieberman and Kuehler 2009, VanderWerf 2013a). Land has been set aside on the leeward side of Maui for restoration and reintroduction (Vander Werf 2013a, Mounce et al. 2015), and translocation of individuals to W Maui and Moloka'i is also being considered (*HE* 18[3]:3-4, Pratt et al. 2009a). Fencing of the core area to exclude ungulates and attempts to control rats should also improve habitat quality and reproductive success and survival (VanderWerf 2013a; Mounce et al. 2013, 2014). Due to the small population size and vulnerabilities facing the Maui Parrotbill, it was listed as endangered by the USFWS in 1967 and by the State of Hawaii in 1982 (USFWS 1984d, 2006).

[Acronyms and Abbreviations](#)

[Literature cited](#)

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