HAWAI'I 'O'O Moho nobilis

## native resident, endemic, extinct

monotypic

The Hawai'i 'O'o was endemic to *Hawai'i I*, where the last substantiated record was of at least three specimens collected in May 1902 (see below). First note of the Hawai'i 'O'o was made by C. Clerke (in King 1779) during Cook's third voyage, who described "a bird with a long tail, whose colour is black, the vent and feathers under the wing (which are much longer than usually seen in the generality of birds, except for the birds of paradise), are yellow" (see also Hawai'i Mamo). The first three specimens were collected near Kealakekua during this voyage (Stresemann 1950), perhaps on 26 Jan 1779 when a landing party captured many birds (Ellis 1782:93). It has variously been named "Moho" or "HooHoo" by Cook's crew (engendering some confusion with "Moho", the Hawaiian Rail), "Yellow-tufted Bee-eater" by Latham (1782), "Merops niger" (black bee-eater) by Gmelin (1789), and officially as "Gracula nobilis" by Merrem in 1786 (Wilson and Evans 1899, Medway 1981; see Synonymies). After first proposing "Mohoa" as the genus (Cassin 1855), Cassin (1858) fixed the genus "Moho", but "without some degree of repugnance" because "names so singularly barbarous and in such bad taste ought scarcely to be tolerated, even on the ground of priority". Why Cassin reacted to this term (meaning messenger in Hawaiian) so strongly is not currently understood. At least 150 scientific specimens are now known to exist in collections around the world (Banko 1979, Sykes et al. 2000). In 2008 the 'o'os were moved from the Australasian family Melaphigidae to their own family, Mohoidae, of North American origin (Fleischer et al. 2008; see Kaua'i 'O'o).

A well-known species to native Hawaiians for its size, beauty, and valuable feathers (Bloxam 1827a, Peale 1848, Wilson 1890a, Slivers 1892, Emerson 1895, Conant 2005, Amante-Helwig and Conant 2009), it was found to be common and widespread during the 1800s by early collectors (Peale 1848, Cassin 1858, Sclater 1881, Perkins 1893, Wilson and Evans 1899, Rothshchild 1900, Henshaw 1902a, Munro 1944). Charles Pickering (in Cassin 1858) noted them as high up as near the tree line on Mauna Kea and Wilson (1890a) noted an observation by a rancher at "Kalicha" above 1800 m. But by the 1890s, Perkins (1893, 1901, 1903, in Evenhuis 2007:243, 306; see also Banko 1981a) noted that they were found primarily at lower elevations, most abundantly at 700-1200 m, and that they had disappeared from many lowland areas by 1894-1896. Preference for lower elevations, at least in winter (see Henshaw 1902a and Scott et al. 1986 for suggestions of altitudinal migration) could provide a better explanation for their rapid demise through habitat alteration and avian malaria than the notion that collecting them for feathers and food had a significant impact (cf., Wilson and Evans 1899, Henshaw 1902a, Fuller 2001; E 35:114-115). In a remarkable and perhaps unlikely account, Henshaw reported that over 1,000 Hawai'i O'os were taken by feather collectors above Hilo in 1898, but that he could scarcely find an individual anywhere on the island just four years later. A specimen collected by M.L. Walton on 13 May 1902 (LACM 16983) near Ka'au Crater is the last substantiated report (Banko 1979, 1981a); two uncatalogued mounted specimens at the Delaware Museum of Natural History appear also to have been collected by Walton on this date.

Wishful thinking likely resulted in numerous further reports of Hawai'i 'O'o in mid to upper-elevation forests on Hawai'i between 1927 and 1976 (Munro 1944, Banko 1981a, Cushing 1982; *E* 14:76, 23:57, 28:89, 30:67, 30:108, 31:101), most of which are second-hand and none of which are substantiated. Scott et al. (1986) calculated that the chances of the Hawai'i O'o's being missed during the 1977-1979 Hawaii Forest Bird Survey were very small and Elphick et al. (2009), based on Poisson analyses of persistence probabilities using confirmed and unconfirmed records, estimated that the Hawaiian 'O'o went extinct in 1906, with upper limits of 1915-1916.

Presumably because of its noble stature, attempts were made to introduce the Hawai'i 'O'o onto other islands in the late 1880s and early 1890s. Lili'uokolani (1898:196-197; see *E* 26:31) related how about 20 pairs were brought to Honolulu, O'ahu in 1888, three of which went on to Makaweli, Kaua'i and apparently survived in the wild there for one or more years (Perkins 1903, Dibben-Young 2011); one remained in Jul 1889. Munro (1944), Perkins (in Evenhuis 2007:294), and Dibben-Young (2011) mention reports of additional introductions to Honolulu, O'ahu in 1892 (where locals were warned not to shoot them) and possibly to Maui in the 1820s. It is unknown how long the 'o'os survived on O'ahu but, needless to say, these introductions were not ultimately successful.

## Acronyms and Abbreviations

## Literature cited

Citation: Pyle, R.L., and P. Pyle. 2017. The Birds of the Hawaiian Islands: Occurrence, History, Distribution, and Status. B.P. Bishop Museum, Honolulu, HI, U.S.A. Version 2 (1 January 2017) <a href="http://hbs.bishopmuseum.org/birds/rlp-monograph/">http://hbs.bishopmuseum.org/birds/rlp-monograph/</a>