

## PO'O-ULI

## *Melamprosops phaeosoma*

native resident, endemic, presumably extinct

monotypic

The Po'o-uli is the only native Hawaiian landbird taxon known to have escaped the thorough searches by ornithologists of the late 1800s and early 1900s, not being discovered until 1973, when found by University of Hawaii students within "a very limited range in a difficult terrain" in the upper Hanawi watershed on the e. slopes of Mt Haleakala, *Maui* (Casey and Jacobi 1974, Berger 1981; *E* 34:83-84, 35:36-37). The genus and species names indicate "black forehead" and "brown body", respectively, and the Common (Hawaiian) name indicates "black faced" or "dark headed" (Casey and Jacobi 1974, Pratt 2005). Two specimens were collected as co-types, both first-cycle individuals (Engilis et al. 1996), one now residing at BPBM (147112) and the other at AMNH (810456). Casey and Jacobi (1974; see also Bock 1978, Amadon 1986, James and Olson 1991) presented evidence that the Po'o-uli was a Drepanine based on tongue morphology, despite its unusual bill structure, plumage, and call note. These and other unique morphological and behavioral characteristics caused Pratt (1992b) to question its status as a Hawaiian honeycreeper but later genetic and osteological evidence suggests that it is a primitive member of this family (Fleischer et al. 2001; James 2004; Pratt 2005, 2014; Lerner et al. 2011); its taxonomy at the genus and species level has remained stable ([Synonymies](#)). A genus of honeycreeper, *Xestospiza*, found in the subfossil record of Kaua'i, O'ahu, Moloka'i, and O'ahu (James and Olson 1991) may have been the most closely related Drepanine to Po'ouli (James 2004, pers. comm.).

Subfossil evidence indicates the Po'o-uli was once found on the W slopes of Mt Haleakala (James et al. 1987 and *in* Pratt et al. 1997b) but all historical records are confined to a 6-10 sq km area in the vicinity of discovery (Scott et al. 1986, Pratt et al. 1997b, Groombridge 2009). Density estimates indicate a gradual decline from 76 individuals per sq km in the home range in 1975, to 15 per sq km (and a rough population estimate of 140 individuals) during the [HFBS](#) in 1980, to 8 per sq km in 1985 (Scott et al. 1986, Mountainspring et al. 1990); only 3 individuals were recorded on transect during the [HFBS](#). Damage to habitat from feral pigs was implicated as a primary cause of declines (Scott et al. 1985, Anderson and Stone 1993).

Listing as an Endangered Species by the USFWS in 1975 and by the State of Hawaii in 1982 (USFWS 1984b, 2006; *E*: 37:107-108) prompted extensive research and surveys of Po'o-uli population status in the 1990s-early 2000s, including discovery of the first nests (Engilis et al. 1996, Kepler et al. 1996; *E* 46:157, 47:4-5) and first captures for banding (Baker 1998; *E* 59:25-28; [HRBP](#) 1470-1472). Surveys in 1975-1986 indicated declining populations (Scott et al. 1988), those in 1989-1993 failing to locate any Po'o-uli, and more intensive subsequent efforts located only six individuals in 1994-1996 and three individuals in 1997, what was thought to be a male and two females located in widely disjunct territories (Baker 2001, Reynolds and Snetsinger 2001; see also Simon et al. 2002). Feathers from these three Po'o-ulids, all of which were captured and banded in 1997-1998, have been deposited at BPBM (184103-04, 184106). After considerable strategizing (USFWS and Hawaii DLNR 1998, Conrow 1999, VanderWerf et al. 2003, 2006c; USFWS 2006; Groombridge 2009; *E* 58:17-18, 59:3, 5, 59:62; *EH* 9[5]:1-7; *HWN* 8[3]:1,9), one of the females was captured and translocated into the territory of the male,

in 2002, but she returned to her home territory, 2 km distant, the next day (Maui Forest Bird Recovery Project 2002; VanderWerf et al. 2003; Groombridge et al. 2004a, 2004b; Groombridge 2009; *E* 64:49). This prompted what was widely considered a "last ditch effort" in 2004 to bring the remaining birds into captivity (USFWS 2006, VanderWerf et al. 2006c, Lieberman and Kuehler 2009; *E* 64:49, 53). The two individuals that had been experimentally paired were not subsequently re-located, having last been seen in Dec 2003 (male) and Feb 2004 (female). The third bird, thought to be a female, was captured in Sep 2004 but died in captivity on 26 Nov 2004 (*E* 65:3, *EH* 15[9]:1-6; BPBM 184827). This individual, determined actually to have been a male, had a wounded eye and had contracted avian malaria but the primary cause of death of this individual was deemed simply to be "old age" (USFWS 2006; *EH* 15[9]:1-6). Despite the short time since last recorded, many popular epitaphs have been written,, although passage of more time is needed certain that the Po'o-uli is extinct (VanderWerf et al. 2006c, 2013a; Groombridge 2009; BLI 2016). Based on Poisson analyses of persistence probabilities using confirmed and unconfirmed records, Elphick et al. (2009) estimated that the Po'ouli went or will go extinct in 2005-2008, with upper limits of 2008-2024.

#### [Acronyms and Abbreviations](#)

#### [Literature cited](#)

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