Other: Manukapalulu monotypic

naturalized (non-native) resident, long established

Gambel's Quail are found from s. California, Utah, and w. Colorado through ne. Baja California, Sinaloa, and w. Texas (AOU 1998, Brown *et al.* 1998). They have been successfully introduced to San Clemente I., California; Idaho; and the *Southeastern Hawaiian Islands* (Long 1981, Lever 1987). Introductions occurred on Kaho'olawe in 1928 and to all of the Southeastern Islands in 1958-1961 (Swedberg 1967a) but they have only persisted on Lana'i, Kaho'olawe, and Hawai'i I. Competition and hybridization with California Quail have apparently kept them from becoming established in many areas.

H. A. Baldwin was responsible for their introduction to Kaho'olawe in 1928 (Caum 1933) and from this original introduction they have persisted and remained common through at least the mid-2010s (e.g., Conant 1983a, Morin et al. 1998; HRBP 5155, 5227), although populations appear to have decreased somewhat there during the past 30 years. In Dec 2009 counts of about 60 per day were being recorded, and Christmas Bird Counts conducted in 2012, 2013, and 2015 recorded 61, 44, and 38 individuals, respectively. On *Lana'i*, over 500 birds were released between 1958 and 1961 (Swedberg 1967a). They continued to be recorded there, primarily along the s. coast between Keumoku and Manele Bay but also at 500-1100 m elevation near the top of the island (Scott et al. 1986, presumably referring to this species) through at least the late 1980s. Although populations on Lana'i also appear to have declined during the 1990s, increased numbers were reported in Nov 2012 following a prolonged drought (see HRBP 6029). At BPBM there are 5 specimens collected on Kaho'olawe (1953-1983) and one collected on Lana'i (1978). Approximately 607 individuals were released on *Hawai'i I* between 1958 and 1961 (Swedberg 1967a, Lewin 1971) and small numbers (up to 20) were observed on the s. slopes of Mauna Kea in short-grass fields near Keanakolu and Saddle roads, through the early 2010s. They often were seen with California Quail, and hybrids between these two species have been observed (e.g., 2 pair and 9 chicks in Jul 2004, and 2-3 adults in 2011). A report of Gambel's x California quail hybrids on W Moloka'i in 2011 requires verification.

Individuals introduced to Kaho'olawe came from California (Caum 1933) and/or Nevada (Walker 1967) and were thus of the supposed nominate subspecies "*C.g. gambelii*" (AOU 1957). Individuals of known origin resulting in the populations on Lana'i and Hawai'i were of wild birds from New Mexico and were therefore of the supposed subspecies "*ignoscens*". As in California Quail, subspecific distinctions are very tenuous, specimens from Hawaii cannot be diagnosed (PP examination, BPBM), and we consider the species monotypic (cf. Pyle 2008).

Acronyms and Abbreviations

Literature cited

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