

CHUKAR

Alectoris chukar

naturalized (non-native) resident, long established

A. c. chukar (< 1955)

A. c. cypristes and/or *kurdistanica*? (> 1955)

The Chukar is a central Eurasian species, occurring in the dry highlands of se. Europe through the w. Himalayas (Dement'ev and Gladkov 1952, Cramp and Simmons 1980, AOU 1998). It has been introduced throughout w. N America and the *Southeastern Hawaiian Islands* (Long 1981, Lever 1987). From 1930 to 1941 Chukars and other game birds were raised at HBFA's Mokapu Game Farm on Mokapu Peninsula, O'ahu, (Locey 1937; HFA reports from 1931-1940), until war broke out in 1941 and most of the game birds were acquisitioned by the Army for food. Nevertheless, Chukars were released on all six populated islands in 1942-1954, and additional releases of 48-98 birds occurred on the six Southeastern Islands in Apr 1959 and Aug 1961 (Swedberg 1967a). Although these introductions were thought to be somewhat unsuccessful (Bohl & Bump 1970), by the 2000s Chukars had become established and common to abundant in dry upland areas of 1000-3500 m elevation, often above tree line, and regularly to 4000+ m atop Mauna Loa, Mauna Kea, and Mt Haleakala (e.g., *E* 56:80, 57:96). See Christensen (1996) for a summary of the biology and natural history of the Chukar in N America including Hawaii.

On *Kaua'i*, 30 birds were introduced in 1954 (from a population on Lana'i), resulting in establishment by 1966 (Swedberg 1967a, *E* 27:28). Populations became established only in Waimea Canyon (e.g., Makaha Valley; Richardson and Bowles 1964), where they persisted through the 1970-2000s in low densities (Scott *et al.* 1986) but may have been declining during the 1990s due to competition with [Erckel Francolin](#) (Denny 1999). Chukars were first introduced to *O'ahu* in 1923 but this introduction had apparently failed by 1933 (Caum 1933). Additional introductions to w. O'ahu of 30 birds in 1954 and 48 birds in Aug 1961 (Swedberg 1967a) resulted in a few sightings from Pearl Harbor to Kaena Point through the 1950s (*E* 20:81, 21:6) and 1960s but Chukars had become extirpated on O'ahu by the 1970s. Chukars were probably introduced onto *Moloka'i* around 1942, and the population was estimated at 60 there in 1947 (Schwartz and Schwartz 1949). They continue to be found in moderate densities on Moloka'i, primarily in drier upland areas (700-1300 m elev.) of ec. sections, where Scott *et al.* (1986) estimated a population of 250 ± 150 birds during the HFBS. On *Lana'i*, 35 Chukars were released in 1942, resulting in about 50 birds there by 1947 (Schwartz and Schwartz 1949) and a reported 5-8000 individuals by 1951 (Swedberg 1967a). Populations subsequently declined, although they persisted throughout the lowlands through the 2000s (e.g., *E* 26:24, Kramer *et al.* 1973). It is unknown if and when Chukars were imported to Kaho'olawe. Bryan (1958) mentioned that they had become established on this island but, if so, they are no longer recorded there (*cf.* Conant 1983a, Gon *et al.* 1992).

Thirty birds from the Lana'i population were released on *Maui* in 1954 (Swedberg 1968) and by 1959-1963 populations were noted commonly on the slopes of Haleakala (*E* 19:72, 20:1; Yocom 1968). The center of abundance remained here through the 2000s, particularly the s. and w. slopes, where Scott *et al.* (1986) estimated a population of 1700 ± 400 birds during the HFBS. Cole *et al.* (1995) analyzed the effect of

this species on high-elevation habitats on Maui. In 1949, 34 birds were released at Pohakuloa, **Hawai'i I**, and this introduction resulted in an estimated population of 30,000 birds by 1955 (Walker 1967, Lewin 1971). The success of this introduction led DoFAW to import other species favoring xeric habitats, such as francolins, sandgrouse, and quail, that later became established. By the 1960s the population of Chukars on Hawai'i had declined by over 50% (R.L. Walker *in* Lewin 1971) but through the 2000s they remained common in upland areas of 900-3100+ m elevation, where Scott *et al.* (1986) estimated a population of 5500 ± 1300 birds during the HFBS. The highest densities were found on the s. slopes of Mauna Kea.

Little data exists to document population sizes or trends of Chukars and other gamebirds in Hawaii after introduction. Christensen (1996) indicated that, after 23,000 birds were taken in 1952-1968, hunting declined, resulting in the removal of <1000 Chukars/yr after 1968, primarily from Maui and Hawai'i. Through the 2000s most populations, especially those above 1500 m elevation, appeared to be fairly stable.

The Chukar is a polytypic species, with about 14 recognized subspecies. Initial introductions to the U.S., including Hawaii in 1923-1954 (Swedberg 1967a), were primarily if not entirely of the nominate subspecies, *A. c. chukar* from Afghanistan and Nepal (Christensen 1996). Later introductions in 1959-1961 were reportedly of *A. c. cypriotes* and/or *kurdistanica* from Turkey (Swedberg 1967a). It is currently unknown whether or not Turkish Chukars successfully integrated into the then-established populations of nominate Chukars. Six specimens at BPBM collected on Maui and Hawai'i I in 1977-1997 show characters of the nominate subspecies (PP examination), suggesting that influence from Turkish Chukars may have been minimal at best.

[Acronyms and Abbreviations](#)

[Literature cited](#)

Citation: Pyle, R.L., and P. Pyle. 2009. The Birds of the Hawaiian Islands: Occurrence, History, Distribution, and Status. B.P. Bishop Museum, Honolulu, HI, U.S.A. Version 1 (31 December 2009) <http://hbs.bishopmuseum.org/birds/rlp-monograph/>