

## RED JUNGLEFOWL

*Gallus gallus*

Other: *Moa*, Wild Chicken.

*G.g. bankiva*?

### **naturalized (non-native) resident, long established**

Red Junglefowl, the ancestral species to modern day poultry, is native to the Himalayan region, se.Asia, and Indonesia (AOU 1998). Polynesians and other peoples have long recognized the value of Red Junglefowl as a food resource, have domesticated them around the world, and have transported them to most islands of the Pacific including the Hawaiian Islands (Ball 1933, Long 1981, Lever 1987, Marchant & Higgins 1993, Wilmshurst et al. 2011, Thompson et al. 2014, Gering et al. 2015). In the *Southeastern Hawaiian Islands*, wild populations of Red Junglefowl were formerly present on most or all islands, but they have become extirpated or integrated into populations of domestic chickens (other variants of *Gallus gallus*) on all islands except Kaua'i (the only Southeastern Island without mongoose) and, perhaps, Ni'ihau and Lana'i.

Pacific Red Junglefowl, possibly originally of the subspecies *G.g. bankiva*, is the only species of bird introduced to Hawaii with early Polynesian settlers, about 500-700 A.D., that is still extant (Pyle 1995). By 1778, when Captain Cook arrived, wild or semi-domestic junglefowls roamed freely around the native villages and into nearby forests of all Southeastern Islands from sea level to >2000 m elevation, and captive birds were brought to the ships for barter (Ball 1933; Munro 1944; Berger 1972, 1981; Medway 1981). Thereafter populations dwindled as western settlement brought increased hunting pressures and predators including cats, pigs, and (later) mongooses (Caum 1933, Schwartz and Schwartz 1949, Lever 1987, *E* 27:89-90). Other taxa of domesticated *Gallus* were brought to Hawaii as early as the late 1700s (Caum 1933, Locey 1937) and these have roamed widely in rural and some residential areas. Concerted efforts to establish or re-establish the original *Gallus* taxon by HBAF occurred on most islands in 1933-1967 (Locey 1937, Schwartz and Schwartz 1949, Swedberg 1967a, Walker 1967, Lewin 1971). A total of 3157 *Gallus*, probably including a mixture of local and more-recent stocks, were released in 1939 to Kaua'i (857 birds), O'ahu (40), Maui (2140), and Hawai'i I (120) (HBAF Report for 1939). These efforts met with little success, except perhaps locally on Kaua'i and Ni'ihau. Male birds closely resembling the ancestral Red Junglefowl form the basis of the cocks raised and groomed in captivity for the cock-fighting sport that has persisted, illegally, in rural Hawaii, into the 21st century.

It is possible that Red Junglefowls have persisted in the wild on *Ni'ihau*. Introductions of original stock in the 1940s (cf. Fisher 1951) resulted in populations that survived until the 1970s but apparently declined thereafter; they were recorded by an observer in Mar 2001 but the extent of interbreeding with domesticated *Gallus* there remains unknown. Otherwise, original Red Junglefowl persist in relatively unaltered form only in upland *Kaua'i*, where Schwartz and Schwartz (1949) estimated a population of 1,390 individuals in 1946-1947. The wild population or original stock is centered at Koke'e SP and in the Alaka'i Swamp, but they interbreed regularly with domestic chickens on the periphery of this range (Denny 1999), and genetic studies shows infusion from European strains throughout the population (Gering et al. 20105). Populations seem

to be stable in this area, residing in a variety of habitats from open fields and cultivated areas to deep forests (Schwartz and Schwartz 1949, Richardson and Bowles 1964, Scott et al. 1986, Denny 1999). The populations at Koke'e SP increased dramatically after the 1960s, likely due to increases of feral chicken infestation (in part due to escapes after hurricanes in 1983 and 1993) and due to feeding by human visitors (Gering et al. 2015; [Graph](#)). There are 3 specimens of Red Junglefowl collected on Kaua'i in Apr 1900 at BPBM (1235-1237).

Munro (1944) reported that wild birds from Kaua'i were reintroduced to *Lana'i* in 1902, apparently the source for a small persistent population there (Bryan 1958; MVZ 30672, [HRBP](#) 5710 of specimen), which has perhaps interbred with other domestic stock. Small and ephemeral populations of semi-wild Red Junglefowl have been noted more recently on Lana'i (e.g., in Nov 2010), O'ahu (primarily around Waimea Valley Center since the late 1970s; AOU 1983; along the ne. coast, and on Mokapu Peninsula), Moloka'i (various upland areas), and Hawai'i I (in the saddle area between Hualalai and Mauna Loa; *E* 34:2, Scott et al. 1986; and in rural areas of the Kona coast), but it is doubtful that these populations were genetically pure and/or had persisted from original Polynesian stock. Bryan (1958) mentions them as being rare on Hawai'i I but the purity of the birds he was referring to is unknown.

In the *Northwestern Hawaiian Islands*, 10 chickens of unknown taxonomic affinity were recorded at the LORAN station on East I., French Frigate, in 1948. They were not present when POBSP personnel arrived there in Jun 1963 (Amerson 1971).

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

#### [Literature cited](#)

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