BARN OWL Tyto alba

Other: Common Barn-Owl (1983-1988)

T.a. pratincola

naturalized (non-native) resident, recently established

This worldwide species is resident in temperate and tropical zones of all continents including the Americas from s. Canada to Tierra del Fuego (Dement'ev and Gladkov 1951b, Cramp and Simmons 1985, AOU 1998, Higgins 1999). In the Pacific they occur naturally in Fiji, Tonga, Samoa, Wallace and Futuna, and Niue Is, but not in French Polynesia (Pratt 1987). Barn Owls have been introduced successfully only to the Hawaiian Islands in the Pacific area (Long 1981, Lever 1987) and they have become established and common in the *Southeastern Hawaiian Islands*.

In a determined effort to combat rats and mice in agricultural crop lands, HBAF imported and released 86 Barn Owls of the American subspecies pratincola (PP examination, USNM, BPBM) from the San Diego and San Antonio zoos. They were released between 19 Apr 1958 and 4 Jun 1963, in 10 groups, to Kaua'i, O'ahu, Moloka'i, and *Hawai'i I* (E 19:43-44; Tomich 1962; Pekelo 1964; Au and Swedberg 1966; Swedberg 1967a; Berger 1972, 1981; Klavitter 2009). The birds quickly prospered (e.g., E 24:29, 27:7), expanded their range, within a few years had spread to *Maui* and *Lana'i* (E 27:28, 39:64, 41:35-36), and were found to elevations up to 2500 m on Hawai'i. On Ni'ihau they were reported sometime prior to 1980 (Byrd and Telfer 1980b), one was collected in 1997 (BPBM 184003), one was observed roosting in a barn 7 Mar 2002, and an apparent long-term roost site with pellets and seabird bones was noted on Lehua Islet in 2003-2005 (VanderWerf et al. 2007). A control program for Barn Owls was initiated on Lehua in the late 2000s. They have also been documented on Kaula Rock in 1979-1983 (at least), including nesting and preying upon terns in 1979 (Byrd and Telfer 1980b; BPBM 179035, 179043). On Kaho'olawe they were noted in 1982 (Conant 1983) and appeared to be breeding in 1996-1997 (Morin et al. 1998), at which time one was found dead. Offshore records of Barn Owls coming aboard boats 56 km off O'ahu in 1968 (E 29:18), 15 km off O'ahu 26 Apr 1978 (HRBP 0028), in the Kaua'i Channel 29 May 1978 (E 39:64, HRBP 0027), and 32 km S of Moloka'i 21 Sep 1991 (HRBP 0957) further demonstrate their propensity to travel from and between islands. Tomich (1962) found no early evidence of breeding by the released birds but nests have since been found in human structures, cliff-side caves, lava tubes (Berger 1981), and crevices of large trees. Small numbers recorded on the Waipi'o and Honolulu Christmas Bird Counts (first recorded 1974) through the 2000s have been variable and have shown no trends. Although introduced to control rats, their main prey in Hawaii appears to be mice (Tomich 1971a, Berger 1975a, Shallenberger 1977c). They have been suspected of taking several seabird species including Newell Shearwater (Byrd and Telfer 1980b), and have also predated upon native forest birds, although not severely (Klavitter 2009; E 62:127-130).

There are two unsubstantiated reports of Barn Owls from the *Northwestern Hawaiian Islands*, on Kure 20 Dec 1983 and Midway 20-24 Jan 1996, which perhaps refer to misidentified Short-eared Owls. If Barn Owls, it is conceivable that they arrived from continental populations but further documentation would be necessary.

Mysterious die-offs of owls in Hawaii have been noticed beginning in the early 1970s (Aye et al. 1995, Work and Hale 1996, Klavitter 2009; *HWN* 2[3]:2; see also Short-eared Owl). Cause of this "sick owl syndrome" was not known, but infectious diseases, environmental toxins, collisions with vehicles, and shortages of prey were all suggested as possible factors. Aye et al. (1995) concluded that trauma from vehicle collisions, and subsequent emaciation from inability to hunt was a major cause of mortality of Barn and Short-eared owls in Hawaii, and Work and Hale (1996) found that diseases and starvation accounted for half of deaths during a 1992-1994 die-off. It is possible that these die-offs reflect normal mortality rates after population booms tied in with rodent cycles (Klavitter 2009). For more information on history, expansion, behavior, and feeding habits of Barn Owls in Hawaii, see Tomich (1962, 1971a), Berger (1975a, 1981), and Klavitter (2009).

Acronyms and Abbreviations

Literature cited

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