

## PEREGRINE FALCON

*Falco peregrinus*

non-breeding visitor, regular winterer

*F.p. tundrius*

*F.p. japonensis*

*F.p. pealei*

*F.p. anatum?*

Peregrine Falcons breed throughout the world, including ne. Siberia and nw. Alaska, with n. populations being highly migratory (Dement'ev and Gladkov 1951b, Cramp and Simmons 1980, AOU 1998). In fall and winter they have occurred throughout the Pacific, including the Hawaiian Islands, w. Micronesia, Samoa, Fiji (where a resident population exists), the Revillagigedo Is. and Clipperton I. (Pratt et al. 1987, AOU 1998, Wiles 2005). There are at least 6 records from Johnston Atoll, including a first-fall bird found dead in Dec 1991 (BPBM 178595) that had been banded as a chick in Nome Alaska (*F.p. tundrius*) and another specimen of *tundrius* (USNM 544948; Amerson and Shelton 1976). Also, individuals often land on boats far at sea in the Pacific (e.g., BPBM 7349 collected 1600 km W of San Francisco in Sep 1928 and one that landed on a ship 1850 km S of Hawaii in Nov 1983 and brought to the Honolulu Zoo; see also Craddock and Carlson 1970, Rogers and Leatherwood 1981, Kramer 1985, *E* 51:77), from which they actively prey upon seabirds (e.g., [HRBP](#) 0374-0375, 0931-0932). North American populations declined severely during the 1960-1970s based on the effects of DDT but have recovered to near-historic sizes by the late 1990s (White et al. 2002); this pattern is reflected by records in the Hawaiian Islands, numbers of which increased through the 1980s; it is currently a regular winter visitor. Peregrine Falcon was removed from the Federal Endangered Species List in 1999.

In the *Northwestern Hawaiian Islands* and surrounding waters there are at least 26 records as follows: **Kure** (one, 7 Mar 1965; Clapp and Woodward 1968, USNM 494363 and another outside of Hawaiian waters W of Kure 13 Nov 1982 [HRBP](#) 0370-0374), **Midway** (12 in 1967-2007; e.g., Clapp and Woodward 1968; *E* 41:83; [HRBP](#) 0758, 1159, 1201, 1353-1355), at sea 184 km NE of Pearl and Hermes 4-6 Oct 1991 (*E* 51:77, [HRBP](#) 0931-0932), **Lisianski** (one, 12-14 Mar 1965; Clapp and Woodward 1968), **Laysan** (5 in 1994-2009 including an over-wintering pair; e.g., [HRBP](#) 5577-5578, 5641-5643), **French Frigate** (7 in 1984-2008; e.g., [HRBP](#) 0789-0791), and at sea 370 km NE of Nihoa 5 Nov 2007 ([HRBP](#) 5454-5456). All were recorded between 4 Oct (1991 near Pearl and Hermes; see above) and 22 Apr (1987 on Midway; [HRBP](#) 0758), with at least n13 birds over-wintering on Midway, Laysan, and French Frigate. Based on descriptions and photographs at least 10 appear to have been first-year birds whereas two (Mar 1967 on Midway and Nov 1995 on Laysan) were reported as adults. Three birds were from the 1960s, none from the 1970s, 5 from the 1980s, and ~10 each from the 1990s and 2000s, in part reflecting trends in North America due to effects of DDT in the 1960-1970s and subsequent population restoration efforts there. Peregrine Falcons have posed problems for breeding species in the Northwestern Islands; e.g., one that decimated the [Blue-gray Noddy](#) population at La Perouse Pinnacle, French Frigate, in 2007-2008, and one that snacked on at least 20 [Laysan Finches](#) on Laysan during winter/spring 2008-2009.

In the *Southeastern Hawaiian Islands* Peregrine Falcons are now annual visitors, having been recorded in every winter (Oct-May) since Jan 1980. Records exist for all

Southeastern Islands except Lana'i: *Ni'ihau* (winter 2002-2003; VanderWerf et al. 2007), *Kaua'i* (observed in 10 winters between 1975 and 2007), *O'ahu* (32 winters, 1965-2009; e.g., [HRBP](#) 0302-0303, 1026, 5640 published *NAB* 63:523), *Moloka'i* (a "possible" sighting in Jan 1972 and one each in Dec 1986, Jan 2005, and Apr 2009), *Kaho'olawe* (Feb-Mar 1992 and Mar 2001), *Maui* (12 winters, 1988-2009), and *Hawai'i* (12 winters, 1961-2007). Virtually all reports are of single individuals, 2 together being reported only four times (once on Kaua'i and thrice on O'ahu), although examination of dates and plumages indicates that up to three birds may have been present on an island during a given winter (e.g., 1990-1991 on O'ahu). Many individuals appear to over-winter throughout most or all of an island, whereas some records are of individuals seen for short periods in fall or spring. The earliest fall date was 21 Sep (1995, Hanapepe, Kaua'i) and the latest spring date was 30 May (1997, Honolulu, O'ahu). About half of the aged birds are of adults and there are several records of adult birds that appeared to return to the same locale for consecutive winters. A first-fall female hit a building window in Aiea, O'ahu, 28 Oct 1989 (BPBM 178185).

Surprisingly there are no historic records for the Hawaiian Islands, although two raptors reported by Henshaw (1901c, 1902c) that landed on ships 350-700 km E of Hawai'i I., in May-Jun 1897 and in 1901-1902, both of which preyed on seabirds, were most likely Peregrine Falcons (see [Hawaiian Hawk](#)). The first documented record of Peregrine Falcon was of an adult observed at Hawaii Volcanoes NP, Hawai'i, 27-28 Feb 1961 (*E* 21:80, 22:2; Dunmire 1961). In the Southeastern Islands there followed 5 records in the 1960s (e.g., *E* 26:61, 63, 112; 27:96; 28:72-73; *E* 29:73), only 2 documented records during the population dearth of the 1970s (*E* 36:116, 140; *E* 37:64, 82, 98, 148; 38:3) and, as in the Northwestern Hawaiian Islands (see above) a steady and substantial increase during the 1980s and 1990s, that leveled off in the 2000s.

Four subspecies of Peregrine Falcon have been reported from the Hawaiian Islands, *F.p. japonensis* of ne. Asia, *F. p. tundrius* of arctic N America, *F. p. pealei* of nw. N. America, and *F. p. anatum* of continental N. America including central Alaska. The specimen (USNM 494363) from Kure has been identified by Clayton M. White (*cf.* White 1968) and independently confirmed by several ornithologists as *pealei* and the bird collected 1600 km W of San Francisco and photographed NE of Nihoa (see above) were also of this subspecies. Based on field observations and examination of photographs, the birds observed at sea W of Kure and NE of Pearl and Hermes (see above) as well as birds on Midway Jan-Apr 1998 and 31 Oct 1999 – Mar 2000 have been identified as *japonensis* (PP); interestingly, the last bird had a near-complete preformative body molt unlike that of N American subspecies, attaining an adult-like plumage during its first winter. Several other observations and photographs of over-wintering birds (e.g., 1991-1992, 1992-1993, and 2008-2009 on O'ahu, 1997-1998 on French Frigate, 2000-2001 and 2007-2008 on Kaua'i, 2004-2005 on Hawai'i I, and 2008-2009 on Laysan) are of dark-plumaged birds likely representing either *pealei* or *japonensis*, those in the Southeastern Islands perhaps more likely the former and those in the Northwestern Islands perhaps more likely the latter.

The specimens from Johnston Atoll are of *tundrius* and descriptions, photographs, and specimens of several individuals during fall and spring (18-19 Nov 1984 at French Frigate; 15 Nov 1983, 17 Apr 1988, 28 Oct 1989 [BPBM 178185], 25 Oct 1990, and 7 May 1992 on O'ahu), as well one that landed on a ship 1850 km S of Hawai'i mid-Nov

1983 (which was brought to the Honolulu Zoo and examined in the hand) also appear to be *tundrius*. It is the longest-distance migrant of the four subspecies discussed here (White 1968), wintering in S America, and it appears to be the most regular subspecies in the Hawaiian Islands during migratory periods.

Several over-wintering adults with unstreaked and rose-tinged breasts (e.g., 1984-1985 and 1987-1988 on Kaua'i and 1988-1989 on O'ahu) have shown the characteristics of *anatum* but a specimen will be required to confirm this subspecies for the Hawaiian Islands. *F.p. anatum* migrates along the California coast (Earnheart-Gold and Pyle 2001), and an individual banded in Arizona was recovered in Japan. This individual was suspected of riding a ship (White *et al.* 2002); however, this mode of transport could account for other reports of *anatum* or other less-migratory species in Hawaii. There has also been genetic mixing of subspecies during captive rehabilitation in the 1970s (White and Boyce 1988, Tordoff and Redig 2001), which can preclude subspecific determinations of *anatum*.

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

#### [Literature cited](#)

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