

BONIN PETREL

Pterodroma hypoleuca

breeding visitor, indigenous

monotypic

Bonin Petrels breed on low vegetated sandy islands throughout the Northwestern Hawaiian Islands, and disperse northwestward in the N Pacific to waters off the Mariana I, Japan, and Sakhalin (Harrison 1983, Tanaka and Kaneko 1983, Seto and O'Daniel 1999, USFWS 2005b, Wiles 2005). They also breed in the Bonin Is and on Volcano I. south of Japan and disperse northward after breeding. See Bryan and Greenway (1944) for a summary of confusion in the original taxonomy of this species, once thought to be a [Stejneger's Petrel](#) and which has an unknown type locality ("Krusenstern Island"). Adults arrive on the breeding grounds in late Jul-Aug and young fledge in May-Jun (Seto and O'Daniel 1999). They return at dusk and are active above ground only at night. Information on the history of the species and data on breeding phenology for each Northwestern Island, compiled as part of the POBSP, can be found in the Atoll Research Bulletins for each breeding locality (see [Seabird Page](#)).

In the 1990-mid 2010s the *Northwestern Hawaiian Island* breeding population was estimated at about 420,000 active breeding pairs ([Table](#)), with highest populations on *Lisianski*, followed by *Midway* ([HRBP](#) 6197-6202), *Laysan*, *Kure*, *Pearl and Hermes*, and *French Frigate*; there are as yet no records ashore for Gardner Pinnacles, Necker, or Nihoa. At Kure, Polynesian rats have long kept the population low, and at Midway, black rats introduced in 1942-1943 (during or just after the Battle of Midway; *E* 5:48-51, 6:11-14) severely decimated the population from an estimated 375,000 pairs in the 1930s (Hadden 1941, Blackman 1944) to 12,500 in May 1945 (*E* 6:12) to <5000 in the 1980s (Fefer et al. 1987, Grant and Pettit 1981, Harrison 1990, Seto 1994, Rauzon 2001). After rats were controlled and eradicated from Midway in 1994-1997, Bonin Petrels increased quickly to 32,000 pairs in 1999 (Seto and O'Daniel 1999) and to >100,000 pairs by 2003 and 125,000 pairs in 2008 and possibly much higher numbers by the mid-2010s, although thousands died in flooded burrows during a storm on 11 Feb 2011 and a tsunami on 11 Mar 2011. Likewise, populations on Kure appeared to be expanding from estimates of 300-400 pairs once rats were removed in 1994 (Vanderlip 2006). Populations on Laysan and Lisianski declined greatly between 1911 (80,000 pairs on Laysan; Dill and Bryan 1912) and the early 1920s, by which time the vegetation was severely reduced by rabbits (Ely and Clapp 1973, Clapp and Wirtz 1975). Vegetation and petrels have recovered substantially since 1923, when rabbits were eradicated (Laysan) or died out (Lisianski).

Bonin Petrels depart daily from breeding islands to forage *at sea* in Northwestern Hawaiian Island waters (e.g., [HRBP](#) 6135-6139, 6148-6149, 6195). During the [HICEAS](#) survey of in Aug-Nov 2002, Bonin Petrels were recorded on 44 of 72 observing days at sea within 370 km of the Northwestern Islands, from Kure to French Frigate Shoals (Rowlett 2002; [HICEAS data](#)). They were found on 5 of 10 observing days around Necker and Nihoa, and on only 1 day (370 km N of Kaua'i) of 35 days near and east of the Southeastern Islands. The highest daily count was of 2,780 on 20 Sep 2002, mostly in the first 2 hours after sunrise about 45 km SSW of Midway, apparently during a heavy outbound flight from that colony. Other daily counts >100 were recorded on 13 days near Midway, Lisianski, and Laysan. Pyle and Eilerts (1986) recorded 250 between Midway and Laysan on 3 Nov 1984. King (1970) reported observations of 2 or 3 birds on each

monthly cruise in Oct 1964 through Jan 1965 E and S of the Southeastern Islands. These were tentatively identified as Bonin Petrels but not certainly distinguished from the more abundant [Black-winged Petrel](#) or other small *Pterodroma*. Spear *et al.* (1999) recorded no Bonin Petrels in 72 hrs of surveying on cruises during spring and fall of 1984-1991 S and SE of Hawai'i I.

Fossil and subfossil deposits indicate that Bonin Petrels bred in the *Southeastern Hawaiian Islands* (at least on Kaua'i, O'ahu, and Molokai) but were extirpated by original Polynesian settlers (Olson and James 1982b, James 1987, Burney *et al.* 2001, Harty *et al.* 2005). More recently, they have been reported rarely during single-day boat trips within a few miles offshore, or as accidental standings on shore. Reports of a chick on Kaula Rock (Caum 1936) and of specimens and observations from Ni'ihau (Fisher 1951) are unsubstantiated; however, one was photographed SE of *Ni'ihau* 12 Feb 2015 ([CRC data](#); [HRBP](#) 6203). A photograph of a petrel found grounded at Kilauea Pt., Kaua'i, 20 Sep 1974 ([HRBP](#) 5705 published *E* 41:68; Byrd and Zeillemaker 1981; *E* 35:121), identified as a Bonin Petrel, appears a better fit for [Black-winged Petrel](#) and is thus unsubstantiated to species, as are individuals reportedly turned in to [SOS](#) aid stations on Kaua'i 11 Nov 1984 and 20 Nov 1992. On *O'ahu*, individuals were found dead W of Diamond Head 24 Jan 1963 (BPBM 145505; [HRBP](#) 5885 of specimen) and at the Ki'i unit of JCNWR 29 Apr 1986 (BPBM 175752; [HRBP](#) 5886 of specimen), and stranded birds were reportedly turned in to SLP rehabilitation facility 3 Mar 1989 (from an unknown locality) and 1 Jun 1990 (from Waimanalo Beach), the latter banded and released 6 Jun 1990. Sightings of Bonin Petrels have also been reported from small boats a few miles off O'ahu on 4 Nov 1989, 20 Oct 1990, and 12 Oct 1992 but we consider these unsubstantiated. A report of one collected by Newell on Maui (Bryan 1901b) refers to a [Hawaiian Petrel](#) (BPBM 152350).

[Acronyms and Abbreviations](#)

[Literature cited](#)

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