

## BULWER'S PETREL

*Bulweria bulwerii*

Other: 'Ou

monotypic

### breeding visitor, indigenous

This small petrel breeds in the Northwest Hawaiian Islands from Pearl & Hermes east to Nihoa and Kaula Rock, and on small coastal islets around the Southeastern Hawaiian Islands (Megyesi and O'Daniel 1997, [Table](#)). Rat predation long ago eliminated breeding populations from the Southeastern Islands themselves, Kure, and more recently from Midway Atoll in the 1940s (*E* 5:48-51, 6:11-14). Bulwer's Petrels also breed on Johnston Atoll (Amerson and Shelton 1976) and other islands in the Pacific from the China coast to the Galapagos, and in the Atlantic and NW Indian Oceans (AOU 1998). In Hawaii they arrive at the breeding islands generally in Apr-May, and the last fledglings leave in Sep-Oct. They are absent or virtually so from Hawaiian waters in Nov-Mar, likely dispersing southeastward into the tropical Pacific (Pitman 1986). Stejneger (1889) first describes the occurrence of this species in the Pacific based on specimens collected by the Knudsens on Kaua'i; Munro (*E* 2:1-3) describes their early history and breeding in Hawaii; and Megyesi and O'Daniel (1997) provide a thorough summarization of the distribution and biology of the species.

In the *Northwestern Hawaiian Islands* about 95% of the estimated 92,000 pairs of breeding Bulwer's Petrels are located on *Nihoa* (e.g., [HRBP](#) 6224-6226), with much smaller colonies present on *Laysan*, *Necker*, *French Frigate*, *Lisianski*, *Pearl and Hermes*, and *Gardner Pinnacles* ([Table](#)). On *Midway*, breeding Bulwer's Petrels remained common on Eastern Island (and rare on Sand Island) through Jul 1941 (Blackman 1944; *E* 14:46, 58). The first post-war census in May 1945 found 600 still present on Eastern Island and none on Sand Island (Fisher and Baldwin 1946, *E* 6:12). Rats were introduced to Midway around 1943 and within a few years had exterminated the small ground-nesting petrels from the atoll, apparently Sand I first and then Eastern I. Not long after rats were eradicated in 1997, a Bulwer's Petrel was found calling in a burrow on Sand I in May 1999, after a half-century absence, and reports increased here and at *Kure* (where rats were removed in 1994) during the 2000s and early 2010s (VanderWerf and David 2000; Vanderlip 2005-2007; DOFAW 2012); roughly, at least 10 pairs were estimated to be breeding on each atoll during the early-to-mid 2010s. 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 *Southeastern Hawaiian Islands*, remains of Bulwer's Petrels have been found in middens and fossil deposits on Kaua'i, O'ahu, and Moloka'i (Olson and James 1982b). The species has not inhabited the Southeastern Islands in recent times but they do nest on small offshore islets where they are relatively free from human disturbance (but see Northwood 1940b) and introduced predators; a very rough estimate of 1100 pairs bred in the Southeast Islands during the 1980-mid 2010s ([Table](#)). They have been recorded nesting on Kaula Rock and on Lehua islet off *Ni'ihau*, where they are predated by Barn Owls and/or rats (Richardson 1963, VanderWerf et al. 2007, USNC 2016); an estimated 50 pairs may breed on each islet. There are no confirmed records for Ni'ihau

proper but they have been recorded frequently in offshore waters. Remains of 14 birds were found on Mokuaeae Islet off Kilauea NWR, **Kaua'i** in Jul-Sep 1979 (*E* 41:68), 24-25 birds were found in each of 2006 and 2007 (carcasses predated by [Barn Owls](#)), and breeding was confirmed there in Jul 2014. Five Bulwer's Petrels were also turned into [SOS](#) facilities on Kaua'i during Mar-Oct, 2008-2012 ([SOS data](#)). Offshore of **O'ahu** they nest on several islets along the NE coast ([Table](#); cf. Richardson and Fisher 1950), with a rough total estimate of 425 pairs. Approximately 178 birds were turned in to the SLP rehabilitation facility between 1991 and 2003, including high counts of 19 each in 1990 and 1998. They also nest or likely nest on islets off **Moloka'i** (Moku Ho'oniki off the E end; *E* 50:77 and possibly the Kepuhi Bay area in 2009); **Lana'i** (islets along S shore); **Kaho'olawe** (Pu'u Koa'e; Environmental Study Impact Corp 1979, Gon et al. 1992); **Maui** (Moke'ehia Islet and Hulu Islet off the NW coast and on Molokini); and **Hawai'i I** (Ke'a'oi Islet off Halape on the Ka'u coast; Baldwin 1946). Estimated populations are 50-150 breeding pairs on Moke'ehia, Molokini, and Ke'a'oi, and <25 breeding pairs on other islets (Harrison 1990). The species may breed on other coastal islets not yet surveyed. An interesting record is of 1-2 Bulwer's Petrels attracted to playback calls for Hawaiian Petrels at the Makamaka'ole Seabird Preserve in the W Maui Mts, and recorded several times on video during 11-25 Jun 2014.

*At sea*, Bulwer's Petrels are seen regularly in small-to-moderate numbers around breeding colonies throughout Hawaiian Island waters (e.g., [HRBP](#) 0780, 5618, 6295), with all substantiated records occurring between 9 Apr and 24 Oct ([HICEAS data](#), [CRC data](#)). Foraging concentrations appear to occur W of Ni'ihau and Hawai'i I and NE of O'ahu and e. Maui (Winship et al. 2016). During a survey of all Hawaiian waters in Aug-Nov 2002, Bulwer's Petrels were found at sea on 37 of 46 observing days in Aug-Sep, but on only on 2 of 25 observing days during Oct and none of 23 days in Nov. Birds were recorded from W of Kure to E of Hawai'i. Highest daily counts were near the breeding islands during Aug 23-28, including 225 Bulwer's Petrels seen N of Nihoa on 25 Aug 2002 (Rowlett 2002; [HICEAS data](#)). Surveys S and E of O'ahu and Hawai'i I. found good numbers of Bulwer's Petrels during Apr-Sep, the majority within 140 km of the islands (King 1970, Spear et al. 1999), and more recent high counts occur during this period; e.g., 35 off Honokohau Harbor, Hawai'i I 19 Apr 2013, 52 off Makahuena Pt., Kaua'i 29 May 2012; 75 off Maui 5 Aug 2003; and 100 off O'ahu 26 Jun 2004. King (1970) recorded only one Bulwer's Petrel in Hawaiian waters between 4 Oct 1964 and 11 Apr 1965, just N of Molokai 24 Jan 1965, but without description we consider this record unsubstantiated.

### [Acronyms and Abbreviations](#)

### [Literature cited](#)

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