

BROWN BOOBY

Sula leucogaster

Other: 'A

S.l. plotus (resident)

S.l. brewsteri (visitor, occasional breeder)

breeding visitor, indigenous

Brown Boobies breed widely across the tropical Pacific on oceanic islands from the Bonin Islands and northern Australia E to the Tuamotus and Marquesas, and off the W coast of Central America (Harrison 1983, Marchant and Higgins 1990, AOU 1998, CBRC 2007). Breeding colonies exist for both Johnston and Wake atolls (Amerson and Shelton 1976, Rauzon et al. 2008). They are a relatively uncommon breeder in the Hawaiian Islands (nesting primarily on rocky cliff faces but occasionally on the ground or in trees) and range fairly commonly along coasts of the Southeastern Islands, often perching on buoys. Breeding occurs primarily in Jan-Sep, with lower numbers and fewer nesting attempts observed in Oct-Dec. See Schreiber and Norton (2002) for information on the natural history of Brown Booby.

An estimated 427 pairs of Brown Boobies bred in the *Northwestern Hawaiian Islands* during the 1980-mid 2010s ([Table](#)), the largest colony on *Nihoa*, with 175 breeding pairs, followed in descending order by *Kure*, *Pearl and Hermes*, *French Frigate*, *Laysan*, *Necker*, *Lisianski*, and *Gardner Pinnacles* ([Table](#)). On *Midway*, Palmer found a small colony in 1891 (Rothschild 1900), Hadden (1941) considered them the most common breeding booby during the 1930s, and Bailey (1956) noted six pairs in 1940-1941. Following these observations, none were recorded until 1-2 pair began nesting sporadically on Eastern I in 1999 though at least 2011. 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* at least 1,000 pairs bred during the 1980-2010s ([Table](#)), only on offshore islets (except possibly on *Ni'ihau* where information is not available). An estimated 300-500 pairs bred on Kaula Rock SW of Ni'ihau (Flint 2008, USNC 2016), up to 500 pairs bred on Lehua Islet N of Ni'ihau (VanderWerf et al. 2007), 50-125 pairs bred on Mokumanu islet off NE *O'ahu* (Richardson and Fisher 1950, Harrison 1990, HDFW 2006; *E* 26:110; [Table](#)), and they were reported as breeding on Pu'u Koa'e Islet off *Kaho'olawe* (Gon et al. 1992). The observation of two fledglings in 1976 among roosting birds on Moku'aeae Islet off Kilauea Point NWR, *Kaua'i* (Byrd and Zeillemaker 1981), indicates occasional breeding there. Observations of individuals perched along the Napali Coast, Kaua'i, in the late 2000s may also indicate the potential for their breeding along these isolated cliffs. Roosting Brown Boobies are present near breeding colonies during all seasons (lower numbers in Oct-Dec); e.g., observations since 1953 have yielded many counts from main islands of up to 53 birds on Mokumanu and up to 120 on Moku'aeae. On Kaho'olawe 24 Brown Boobies were flushed from cliffs along the southeast shore on 14 Jul 2003, and a Brown Booby found there in Dec 1996 had been banded as a chick on Johnston Atoll (Morin et al. 1999). At least 44 Brown Boobies were found stranded on O'ahu in 1990-2003 and turned into the SLP

rehabilitation facility and 16 were turned into the [SOS](#) program on Kaua'i during 2008-2016 ([SOS data](#)).

Brown Boobies occur commonly in offshore waters and are observed regularly from shore around all of the Southeastern Islands (e.g., [HRBP](#) 0325, 1225). They are reported from many points around the entire perimeters of Kaua'i and O'ahu, where observer effort is high and breeding/roosting colonies are near. [Christmas Bird Count](#) data indicate no trends on Kaua'i ([Table](#)) and a peak in observations off Honolulu during the late 1950s to 1970s ([Graph](#)), coincident with the deposit of wastewater off the city during that period (see [Pomarine Jaeger](#)). Reports are fewer and widespread around the perimeters of *Moloka'i*, *Maui*, *Lana'i*, and *Hawai'i I.* Most observations from shore are of 1-3 birds, but counts of up to 30 occasionally and 50 rarely have been noted, primarily off Kaua'i and O'ahu, with high counts of 80 from Kekaha Beach Park, Kaua'i, 19-20 Mar 2016. Farther *at sea*, King (1970) recorded 74 Brown Boobies in Hawaiian waters during surveys S and E of the Southeastern Islands, but all were within 90 km of O'ahu. They were found on all surveys Apr 1964-Jun 1965 with no significant seasonal peaks. Rowlett (2002; [HICEAS data](#)) recorded them on only 17 of 93 observing days around the Hawaiian Islands in Aug-Nov 2002, nearly all on 10 days observing within 90 km of an island with a breeding colony (see also Winship et al. 2016). High daily counts were of 65 near French Frigate and 35 near O'ahu. Beyond 90 km offshore, Rowlett recorded 9 birds in 7 days scattered from NW of Kure to NE of O'ahu whereas none were recorded in 15 observing days near and east of Maui and Hawai'i. Spear et al. (1999) also recorded none in 144 hrs of transect surveys S and SE of Hawai'i Island.

The subspecies of Brown Booby nesting in the central Pacific, including Hawaii, is *S.l. plotus*. There are also >35 records of adult males presumed to be of the distinctive, white-headed e. Pacific subspecies *S.l. brewsteri* (summarized by VanderWerf et al. 2008). Individuals of this subspecies were also photographed on Johnston Atoll 29 Apr 1984 ([HRBP](#) 0429), observed three times on Wake Atoll in 1998-2007 (Rauzon et al. 2008), and observed at Palmyra Atoll in 1996 (VanderWerf et al. 2008). In the Northwestern Hawaiian Islands, records of *brewsteri* include individuals on Kure in Jun 2006 (Vanderlip 2006; photograph in VanderWerf et al. 2008), Aug 2009 ([HRBP](#) 5958), 21 May 2013 ([HRBP](#) 6333; may be an intergrade), and (different individual) 12 Jun 2013 ([HRBP](#) 6334); one on Midway in Jan-Feb 2001 and another 19 Jan 2007 ([HRBP](#) 5543); 1-2 on Lisianski in 1996-1999 ([HRBP](#) 1363) and individuals there in Apr 2005 ([HRBP](#) 5545) and on 25 Jul 2012 ([HRBP](#) 6331-6332); long-staying individuals on Laysan observed 8 times in 1994-2000 and 3 times in 2007-2009, as well as 1-3 individuals recorded in Oct-Dec 2011 (Rutt in press; [HRBP](#) 6329-6330; 3 together 22-26 Dec 2011 represents a high count for the Hawaiian Islands); 2-3 individuals on French Frigate in Nov 1990 ([HRBP](#) 1017), Jan-Feb 2003, and in 2007-2008 ([HRBP](#) 5957 published *NAB* 62:322); and one off Necker 26 Sep 2013. These could represent a few individuals working up and down the chain. Breeding attempts with local females (presumably of *plotus*) were photographed on Laysan in 1998 (photo published in VanderWerf et al. 2008) and observed on Lisianski in 2000, Laysan in 2011, and Kure in 2013; an additional individual on Kure may have represented an intergrade between *brewsteri* and *plotus* ([HRBP](#) 6333). In the Southeastern Hawaiian Islands, the first record of a *brewsteri* Brown Booby in Hawaii was of one at Nu'upia Ponds O'ahu 18 Jun 1955 and there have

been six additional observations of singles around and off O'ahu in 2006-2013 (e.g., [HRBP 5758-5759](#)), one off Kaho'olawe 9-22 May 2001, three off Hawai'i I in 2011-2016 (e.g., [HRBP 6328](#)), and one turned into the [SOS](#) program on Kaua'i 26 Jan 2015 ([HRBP 6335](#); BPBM 186121). Plumage of most of these males indicate *brewsteri* (cf. Schreiber and Norton 2002), some showing extensive white heads and necks ([HRBP 5544, 5757](#)), perhaps indicative of some Clipperton Island breeding males. Others with less white in the head could represent the subspecies *S.l. etesiaca* of C and S America, but it is unclear how these can be separated from subadult male *brewsteri* or from potential intergrades as noted above on Kure ([HRBP 6333](#)).

[Acronyms and Abbreviations](#)

[Literature cited](#)

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