

WHITE-TAILED TROPICBIRD

Phaethon lepturus

Other: *Koa'e, Koa'e kea*

P.l. dorotheae

breeding visitor, indigenous

White-tailed Tropicbird is nearly pantropical, being scarce only in the Eastern Tropical Pacific (Harrison 1983, Pitman 1986, Marchant and Higgins 1990, AOU 1998, CBRC 2007). It breeds commonly on islands with steep cliffs or large trees, including Wake I (Rauzon et al. 2008) and many of the *Southeastern Hawaiian Islands* (E 7:59-61). First post-contact mention may have been C. Clerke's reference (in King 1779) to "large white pigeons" observed during Cook's third voyage, perhaps based on misidentified White-tailed Tropicbirds, and to the fact that Hawaiian ornamental fans and the cloaks of "inferior chiefs" could be adorned with tropicbird (as well as junglefowl) feathers. Perkins (1903) noted that they were very common on all Southeastern Islands, even in the neighborhood of Honolulu. See Lee and Walsh-McGehee (1998) for a summary of the natural history of this species.

White-tailed Tropicbirds have been confirmed breeding on most of the *Southeastern Hawaiian Islands*, with an overall estimate of about 1,550 nesting pairs ([Table](#)), although estimates are difficult to get and should be considered imprecise (Fefer et al. 1987). On *Ni'ihau* proper, along with Lehua Islet, they are not known to breed (sight reports only; Fisher 1951, VanderWerf et al. 2007), but have been recorded breeding on Kaula Rock, although status there in the 2000s-mid 2010s was undetermined and they were not noted there in 2010-2016 (USNC 2016). Likewise, on *Kaho'olawe*, breeding has not been confirmed but is suspected to occur in small numbers (1-2 pairs; Conant 1983a, Morin et al. 1998). On the remaining islands nearly half of the population breeds on *Kaua'i* ([Table](#)), where they are found in valleys throughout the island. In descending order ([Table](#)), largest breeding populations during the 1980s-2010s were estimated from *Moloka'i* (primarily along north coast and on Okala and Mokuho'oniki islets; E 24:47); *Hawai'i I* (primarily at Volcano NP, in the Kohala Mts, and along the Kealahou coast; Henshaw 1901a, Dunmire 1961); *Mau'i* (primarily along the nw. coast, in Iao Valley, and on Keanae Peninsula, Moku Mana and other ne. coastal islets); *O'ahu* (scattered locations in the e. side of the Ko'olau range, in Manoa and Nanakuli valleys, and on Mokolii Islet ([Table](#)); and *Lana'i* (in Maunalei and other northern gulches; Hirai 1978b, Munro 2007). Bryan (1937b) indicated that they had declined in number on O'ahu during the early 1900s, perhaps due to predation by mongooses. In the early 1980s several pairs bred in drain pipes of an abandoned sugar-mill cooling tower near Hilo, Hawai'i I, until it was demolished. Up to 15 pairs have regularly nested in Halemaumau Crater, Volcano NP, where they occasionally succumb to eruptions or bursts of sulfur emissions (Dunmire 1961). Many birds apparently breed only every other year (or at least on a cycle > 12 months) so only a proportion of the above numbers are present each year. According to the presence of courting birds, nesting appears to occur year-round, with a slight drop in numbers during Nov-Feb. No trends in populations were apparent on Kaua'i, O'ahu, or Hawai'i I during the 1970s-2010s according to [Christmas Bird Count](#) data ([Table](#)). At least 15 White-tailed Tropicbirds were found stranded on O'ahu in 1990-2002 and turned into the SLP rehabilitation facility, whereas over 180 were turned in as part of the [SOS](#) program on Kaua'i in 2008-2015, most of which were rehabilitated and released ([SOS data](#)).

Historically, White-tailed Tropicbirds did not breed in the *Northwestern Hawaiian Islands* due to lack of breeding habitat. However, the introduction of ironwood

trees (*Casuarina equisetifolia*) and the building of houses on **Midway** have allowed an incipient breeding population to occur there ([Table](#)), over 1600 km from the next closest breeding on Kaua'i. Prior to 1923 they were noted rarely by island personnel (Wetmore *in Olson* 1996b). A pair was noted on Sand Island 28 Dec 1940, at which time atoll residents stated that the species occasionally bred near the Cable Station and surrounding vegetation (*E* 14:32). In 1949 the first nest was confirmed, in the fork of an ironwood tree (Bailey 1951, 1956). Thereafter small numbers have been noted consistently (e.g., Fisher 1965), with up to 5 nests per year documented during the 1990-mid 2010s in and at the base of ironwood trees and in enclosed gardens near houses ([HRBP](#) 0138, 0739, 0830-0831; Grant and Pettit 1981). A specimen was collected 8 Jan 1981 (USNM 598526) and a chick was found dead 7 Mar 1995 (BPBM 183501). Reproductive success was marginal through most of this period but improved after rats were controlled and eradicated from Midway in the 1990s. Most breeding occurs in summer, with smaller numbers and only occasional breeding noted during winter months.

White-tailed Tropicbirds have also been noted at **Kure** (3 records 1965-2011; e.g., Clapp and Woodward 1968), **Laysan** (4, 1984-1998; e.g., BPBM 7022), **French Frigate** (15, 1967-2010; e.g., Ely and Clapp 1975), and **Nihoa** (2 on 4 Apr 1989). A tropicbird with a white tail, noted by Brooks over Gardener Pinnacles in the summer of 1859 (Rothschild 1900), likely was this species but could have been a Red-billed Tropicbird. These occurrences are evenly distributed throughout the year and, except for pairs observed at French Frigate (19 Sep 1998) and Nihoa (see above), all have involved single individuals. Most records have been for single days although two birds at FFS have remained for lengthy periods: 5 Jan-10 Mar 1999 and 26 June-23 July 2000. It has been speculated that they could nest on La Parouse Pinnacle, French Frigate (Amerson 1971).

When not breeding, White-tailed Tropicbirds disperse widely throughout the Pacific (Spear and Ainley 2005) and are regularly observed off the Hawaiian Islands (e.g., [HRBP](#) 5626, 6324). *At sea*, Rowlett (2002; [HICEAS data](#)) recorded them on 30 of 35 observing days within 370 km (200 nmi) of the Southeastern Hawaiian Islands in Aug-Nov 2002. Daily counts of more than four were only recorded on two of these days, indicating a remarkable consistency in foraging densities. Daily counts of 34 and 12 occurred on 24 Aug and 22 Oct, respectively, on the two days that the ship was closest to (N to NW of) Kaua'i (see also Winship et al. 2016), as expected based on higher breeding populations there. By contrast, Rowlett recorded only 14 on 9 of 58 days in Northwestern waters. Single individuals on 13 and 14 Sep S of Pearl and Hermes were the farthest to the NW recorded by Rowlett (2002); other at-sea observations were of single birds 18 km E of Kure on 8 Apr 1976 and between Laysan and French Frigate on 15 No 1984 (Pyle and Eilerts 1986). King (1970) also recorded White-tailed Tropicbirds in small but consistent numbers in his study area S and E of the Southeastern Islands. Numbers were observed every month, with higher totals recorded closer to the islands. Spear et al. (1999) recorded 8 during 144 hrs on transects SE to S of Hawai'i I. in spring and fall 1984-1991.

[Acronyms and Abbreviations](#)

[Literature cited](#)

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