

White-tailed Tropicbird

Phaethon lepturus dorothea

Family: Phaethontidae

Identification

The White-tailed Tropicbird is the smallest of three *Phaethon* species. They are medium-sized, highly aerial seabirds with greatly elongated central rectrices. Both sexes are alike with a mostly white plumage that may have a pale pink wash. Adults have a narrow black eye patch, black streak on the upper wings, and black on the leading edge of the outer primaries. They have a large yellow-green bill and small legs and feet.

White-tails are smaller, more slender, and more graceful than Red-tailed Tropicbirds (*P. rubricauda*), which have heavier bodies and broader wings. Also, Red-tails fly with a shallower, stiffer wing-beat, have a dark red bill, all-white upperparts, (black showing only as narrow lines in outer primaries), and typically red, elongated central rectrices. Juveniles are difficult to distinguish. Upperparts of immature White-tails appear distinctly barred at any distance while Red-tails appear to be a uniform pale gray when viewed from afar.

Survival and Lifespan

Life span is unknown for this species, but they are presumably long-lived based on documented survival of other tropicbird species. The oldest Red-tail documented was at least 23 years of age. The only band recovery of a White-tail was a 7 year old bird.

Distribution

Breeding (Mar-Oct)

A small number of White-tailed Tropicbirds breed on Midway Atoll in the Northwest Hawaiian Islands. However, most are found in the Main Islands where they nest at Waimea Canyon, Kilauea Point NWR, and along the Na Pali Coast (Kauai); Pelekunu Valley, Waikolu, and the windward sea cliffs of Molokai, Kaholo Pali, Maunalei Gulch, Hauola Gulch (Lanai), Kilauea Crater and along the windward coast (Hawaii), and a few pairs nest on southeastern Oahu. During the breeding season birds forage widely over pelagic zones in tropical and subtropical seas, often at considerable distances (up to 120 km) from remote island nest sites. Outside of Hawaii, White-tails breed on oceanic islands throughout the Atlantic, Indian, and Pacific oceans as well as the Caribbean.

Marine

Aptly named, tropicbirds rarely stray from tropical and subtropical seas. Outside the breeding season, adults are solitary and highly pelagic, but their range is poorly known. They have been sited off the main Hawaiian Islands throughout the year, one of the few places where this species remains near land even during the nonbreeding season.

Breeding Ecology

In Hawaii, White-tailed Tropicbirds generally nest in inaccessible locations; often inland on cliffs or in caves, craters, tree hollows or tree crotches. They forgo a nest and use natural crevices or cavities. At the beginning of the breeding season, pairs engage in complex aerial displays. In Hawaii, breeding occurs March through October and a single egg is laid per season. Both parents share all aspects of parental care. The incubation period averages 41 days and chicks fledge in 70 - 80 days. Based on limited data, the age at first breeding is likely after the fourth year.

Feeding and Prey

- Feeding guild – PELECANIFORMES
- Food capture – This diurnal species hovers over prey, partially folds their wings, and makes deep vertical plunges into the water from 15 - 20 m. They may remain underwater for a few seconds, but likely do not swim in pursuit of prey. White-tails may also catch food on the wing.

- Foraging Distribution – Tropicbirds are generally among the most pelagic Pelecaniformes. Except during courtship and nesting they are seldom seen in sight of land and normally do not feed within sight of their nesting islands. They forage over tropical and subtropical seas that typically are nutrient-poor with patchy food resources. Between Alaska and Hawaii they have been found at water surface temperatures between 23.8 and 24.9 C and surface salinity ranging from 35.4 to 35.6%.
- Microhabitat for foraging – White-tails usually forage alone, but occasionally among seabirds associated with tuna (*Thunnus*) schools. Perhaps this is because it is difficult for individuals to single out prey items from the frantic feeding activities of the tuna and other seabirds, and there is a likelihood of midair collisions. Also, they will follow ships which flush flying fish making them readily available.
- Diet – Their diet in Hawaii is poorly known, but elsewhere they eat mostly Flying Fish (*Exocoetus furcatus* and *E. exsiliens*) and squid as well as Mackerel Scad (*Decapterus punctatus*). For their size, they take remarkable large fish; up to 15 - 18% of their body weight.

Threats and Status

In Hawaii, the population is estimated at 1,800 breeding pairs with most occurring in the main Hawaiian Islands. The worldwide population is estimated at less than 200,000 breeding pairs.

Main threats to the species include:

- Predators – Because of its ability to use holes in inaccessible cliffs as nest sites, the White-tailed Tropicbird is less vulnerable than most other tropical seabirds to poaching, predation of eggs and chicks by human introduced predators, and nesting habitat destruction.
- Volcanic activity – Birds nesting in active craters on Hawaii Island are sometimes overcome by fumes during eruptions and fall into the molten lava.

Selected Readings

Division of Forestry and Wildlife (DOFAW). 2005. Hawaii's Comprehensive Wildlife Conservation Strategy. Div. Of Forestry and Wildlife, Dept. of Land and Natural Resources, Honolulu, HI. www.state.hi.us/dlnr/dofaw/cwcs/process_strategy.htm

Harrison, C.S. 1990. Seabirds of Hawaii. Cornell University Press, Ithaca.

Lee DS, Walsh-McGehee M. 1998. White-tailed tropicbird (*Phaeton lepturus*). In The Birds of North America, No. 353 (Poole A, Gill F, editors.). Philadelphia, (PA): The Academy of Natural Sciences; and Washington DC: The American Ornithologists' Union.