



Photo: Forest and Kim Starr, USFWS

Seabirds

'Ua'u kani or Wedge-tailed shearwater *Puffinus pacificus*

SPECIES STATUS:

State Recognized as Indigenous
NatureServe Heritage Ranking G4/G5 – Apparently Secure/Secure
IUCN Red List Ranking – Least Concern
Regional Seabird Conservation Plan – USFWS 2005

SPECIES INFORMATION: The 'ua'u kani or wedge-tailed shearwater is a large, abundant seabird (Family: Procellariidae) that produces a variety of wails and moans that surely inspired the Hawaiian name of this bird which means “calling or moaning petrel.” Individuals have long thin wings, a wedge-shaped tail, and a hooked bill. 'Ua'u kani are polymorphic, having two color phases, dark or light, and sexes are similar in appearance. Light-phase adults are grayish brown above with white underparts except for dark trailing edges of wings and tail. Dark-phase adults are uniformly sooty brown. Flight is similar to that of albatross but flaps wings with greater frequency. Often forages in large, mixed species flocks associated with schools of large predatory fishes which drive prey species to the surface. They use a variety of foraging techniques, most frequently plunges head into water while on the wing, also seizes prey while sitting on the water; often follows fishing vessels. In Hawai'i, diet primarily consists of larval goatfish, flyingfish, squirrelfish, and flying squid. Like most seabirds 'ua'u kani breed in natal colonies, form long-term pair bonds, have high site fidelity, lay one egg per season, and both parents participate in all aspects of raising young. In Hawai'i, nesting is synchronous, and most eggs are laid in June with most young fledging in November. Birds first breed at four years of age, and the oldest known individual was 29 years old.

DISTRIBUTION: Nests throughout the Northwestern Hawaiian Islands (NHWI) and on offshore islets of most of the Main Hawaiian Islands (MHI). Outside of Hawai'i, nests on islands throughout the tropical and subtropical Indian and Pacific oceans. After the breeding season, they may migrate to the eastern Pacific Ocean.

ABUNDANCE: In Hawai'i, population estimated at 270,000 breeding pairs with the largest colonies on Laysan (125,000-175,000 pairs), Nihoa (30,000-40,000 pairs), and Lisianski (10,000-30,000 pairs). The MHI population is estimated at 40,000-60,000 breeding pairs with the largest colonies on the offshore islands of Mānana (10,000-20,000 pairs), Moku Loa (10,000-20,000 pairs), Lehua (23,000 pairs), and Ka'ula (1,500-2,500 pairs). Smaller populations occur on Moku Manu, Moku'auia, Kāpapa, Molokini, Mōkapu Peninsula, Ka'ena Point Natural Area Reserve on O'ahu, and Kīlauea Point National Wildlife Refuge on Kaua'i. Worldwide population is estimated at over 5 million birds.

LOCATION AND CONDITION OF KEY HABITAT: Terrestrial: Nests on low, flat islands and sand spits with little or no vegetation, but also excavates burrows on the slopes of extinct volcanoes and in old volcanic craters. Burrows require firm soil or plant roots to stabilize loose soil; generally nesting habitat is devoid of tall woody plants. In locations where nest sites are scarce or the ground is too hard to excavate burrows, birds will nest in rock crevices or above ground. **Marine:** Pelagic.

THREATS:

- Introduced predators. Like many seabirds, adults and nests are susceptible to mammalian predation by pigs (*Sus scrofa*), rats (*Rattus* spp.), feral cats (*Felis silvestris*), and the small Indian mongoose (*Herpestes auropunctatus*).
- Human disturbance. Laysan (*Telespiza cantans*) and Nihoa (*T. ultima*) finches will depredate eggs left unattended because of human disturbance. Trampling by humans can collapse burrows.
- Artificial lighting. Street and resort lights, especially in coastal areas, disorient fledglings, causing them to eventually fall to the ground exhausted or increasing their chance of collision with structures (i.e., fallout). Once on the ground, fledglings are unable to fly and are killed by cars, cats, and dogs or die of starvation or dehydration.
- Overfishing. Because 'ua'u kani rely on predatory fish to drive prey to the surface, overfishing may be affecting Hawaiian populations.
- Contaminants. Mercury, lead, and organochlorines have been detected in Hawaiian birds.
- Disease. Pox-like lesions have been observed on birds breeding on Maui and Moloka'i.

CONSERVATION ACTIONS: Actions specific to 'ua'u kani should include the following:

- Continue eradication and control of introduced predators at current and potential nesting sites on MHI.
- Limit human access to colonies.
- Continue to support the Save Our Shearwater (SOS) program, particularly its public outreach about light fallout and its rescue and rehabilitation program. Consider establishing similar programs on other islands where appropriate.
- Continue to identify fallout areas and work to minimize effects of powerlines and lights.
- Continue protection and management of wildlife sanctuaries and refuges.

MONITORING: Continue surveys of population and distribution in known and likely habitats.

RESEARCH PRIORITIES:

- Monitor contaminant levels and their effects, and investigate potential sources.
- Investigate the cause and effect of pox-like lesions in populations on Maui and Molokini.
- Model interactions and importance of predatory fish, seabirds, and their prey to determine the long-term effects of overfishing on 'ua'u kani populations.

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