

Wedge-tailed Shearwater

COMMON NAME: Wedge-tailed shearwater

HAWAIIAN NAME: 'Ua'u kani

SCIENTIFIC NAME: *Ardenna pacifica*

LEGAL STATUS: MBTA protected

APPEARANCE: Wedge-tailed shearwaters are the largest tropical shearwater species with slender body, long thin wings, wedge-shaped tail, and hooked bill. Both sexes have two color phases, dark and light dusky brown.

NATIVE RANGE: Wedge-tailed shearwaters are indigenous to Hawai'i.

HABITAT: Shearwaters spend most of their time airborne over the open ocean. They frequent offshore waters, land only to breed, and are site faithful to sand dune burrows and natural crevices in mountain cliffs. Shearwaters feed on fish, squid and similar ocean food.

DIET: Shearwaters feed on fish, squid and similar ocean food.



REPRODUCTION: Shearwaters nest annually, land only to breed, and are nocturnal at breeding sites. They nest underground in colonies at locations such as natural crevices or burrows dug in coastal sand dunes. Adults arrive to their nesting sites in February and March and lay a single white egg by mid-June. (At MCBH adults arrive in March).

ECOLOGICAL THREATS: Threats include mammalian predators, urban encroachment and avian malaria. Introduced mammalian predators, cats, dogs, rats, mongoose and pigs consume adults, eggs and young chicks. The native pueo is also suspected of preying on the wedgies at the Fort Hase colony. Another threat is collision with power cables, poles or other man-made structures, when young fledglings are disoriented by urban lights and fly inland rather than out to sea. This is known as "fallout." Shearwaters may become disoriented and collide with structures, potentially causing injury, or they become exhausted, causing them to land and making them more susceptible to injury or death by cars or predators. Yellow crazy ants can cause wedgies to abandon their nests due to infestation and can cause deformities in chicks due to their production of formic acid.

MCBH CONSERVATION MEASURES: Wedge-tailed shearwaters occur at MCBH Kaneohe Bay and MCTAB. "Wedgies" have established a colony at the Nu'upia Ponds Wildlife Management Area near the Fort Hase shoreline. Since its 1994 discovery, it has expanded from about 24 to over 700 active burrows, as documented in annual bird surveys.



MCBH employs conservation measures to benefit the wedge-tailed shearwater population including:

- **Habitat protection and enhancement.** Non-native invasive plants are opportunistically removed in and around the shearwater colony. Periodic shoreline trash removal and ocean debris removal

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also occurs. Restricted access and control of invasive species are important to maintaining a healthy population of shearwaters at the colony. Established BMPs and conservation measures are employed when a project may have an effect on birds.

- **Limiting disturbance.** Human access to the burrow area is restricted and pets are prohibited.
- **Controlling invasive species (plants, animals and insects).** Yellow crazy ant (*Anoplolepis gracilipes*) control is performed during nesting season. Yellow crazy ants can cause adults to abandon nests and chicks, resulting in increased mortality. On-going mammalian predator control of cats, rats and mongoose is performed in the burrow area, with efforts intensified during nesting season.
- **Wildlife Friendly Lighting.** Natural Resources staff work with facility engineers to minimize lighting issues throughout MCBH. Particularly near shorelines, lights have been removed, numbers of lights limited, or not installed in the first place. When lighting is required, all exterior lights for new construction and renovations are required to use International Dark-Sky compliant fixtures, unless otherwise required by the military mission.
- **Monitoring to help direct management activities.** Natural Resources staff, supported by volunteers from USFWS and OISC, conduct an annual census of occupied shearwater burrows. Monitoring involves identifying potential issues (e.g., yellow crazy ant and predation). Consultation with USFWS occurs as needed.
- **Education and Outreach.** Development and distribution of informational material including videos, fact sheets, and briefings for military personnel and civilians on Base including new arrivals, and outreach with volunteers. Information is disseminated via a Base-wide email and distribution of fliers regarding "shearwater fallout season" and the proper protocols for reporting downed and disoriented birds. Since 1984, records have been kept on numbers of reported fallen shearwaters transferred to appropriate authorities for rest/release.

For more information: MCBH Integrated Natural Resources Management Plan. 2016. Section 6, 7.1, 7.5, 8, 9, Appendix C & D.

PHOTOS

1. Forest and Kim Starr. <http://www.starrenvironmental.com/images/image/?q=24894818446>
2. Shearwater in burrow at MCBH Kaneohe Bay. Dr. Diane Drigot. 2010.