

Red-footed Booby

COMMON NAME: Red-footed booby

HAWAIIAN NAME: 'A

SCIENTIFIC NAME: *Sula sula rubripes*

LEGAL STATUS: MBTA protected.

APPEARANCE: Red-footed boobies are the smallest of the boobies. Adults have long white pointed wings trimmed in black, a long pointed tail, a long pale blue to bluish-green bill, and bright red webbed feet for swimming. Juveniles are usually brown, with a paler belly and darker band on the chest. Although several adult color phases exist, from white with black on the wings to entirely brown, most Hawaiian red-footed boobies are white. It is difficult to differentiate the sexes, except for subtle differences in beak color during mating season. See photo (male on left; female on right).

NATIVE RANGE: Red-footed boobies do not migrate, although they are far-ranging, year-round in the tropical and subtropical regions of the Atlantic, Pacific and Indian Oceans. They are indigenous to Hawai'i. The MCBH colony is only one of two in the Main Hawaiian Islands, and is the largest. The other is located at the USFWS Kilauea National Wildlife Refuge on Kaua'i.

HABITAT: Red-footed boobies feed at sea and nest and perch in colonies on coastal trees and shrubs.

DIET: Red-footed boobies feed on squid and fish and plunge dive to capture fish spotted from above, but are agile enough to snag flying fish from the air. They often hunt in large flocks and are strong flyers and swimmers. They can dive nearly 100 feet to pursue prey and travel up to 90 miles in search of food.

REPRODUCTION: Red-footed boobies build nest of twigs, grass and leaves on large open platforms, small trees and shrubs. Females lay one egg every 15 months. Parents mate for life and share parental duties, taking turns feeding their chick a semi-digested meal of fish and squid for about 18 to 20 weeks.

ECOLOGICAL THREATS: Threats to red-footed boobies include decreasing food sources due to overfishing, predation on adults and nests, and habitat loss due to coastal development, especially the disappearance of shoreline trees and shrubs. In some Pacific islands, poaching them for food occurs.

MCBH CONSERVATION MEASURES: Red-footed boobies roost and nest within Ulupa'u Head Wildlife Management Area on MCBH Kaneohe Bay at the northeast end of the impact area within an active weapons range training facility. Through diligent conservation measures, both "bullets and boobies" thrive there. The number of birds at the colony has more or less held steady over the last 15 years, at around 1,500 to 2,000+ birds, with up to 500 nesting pairs. The boobies build nests on kiawe and koa haole tree branches each year, primarily during the months of March through mid-September.

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Conservation measures at MCBH that benefit the red-footed booby population include:

- **Habitat protection and enhancement.** Nesting platforms have been erected in less fire prone areas to supplement tree habitat. MCBH plans to replace the nesting platforms that have



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succumbed to age and fallen into disrepair. Thus far, efforts to establish native/Polynesian-introduced trees through planting have proven unsuccessful, mainly due to lack of water. Fire-adapted plants, primarily invasive grasses, cover the range and are responsible for carrying brush fires. Established BMPs and conservation measures are employed when a project may have an effect on birds.

- **Limiting disturbance.** The birds are not directly in the line of gunfire and do not appear to be bothered by the sound of gunfire or mortar rounds. Other than annual bird counts, public access to the colony is restricted, arranged in advance, and escorted on a non-interference basis with range training activities.
- **Predator Control.** The principal predatory threat is free-roaming (feral and domesticated) cats with a minimal concern about mongoose predation. Predator control poses challenges as the colony is located on an active range, so it has to be accomplished around the Range training schedule. Additionally, since the colony is located in an "impact area", EOD and sometimes medical support are required to access parts of the colony. Due to these limitations, predator control only occurs on an as needed basis.
- **Wildlife Friendly Lighting.** Although lighting on Base does not appear to be an issue, Natural Resources staff diligently work with Base and contract planners to incorporate International Dark-Sky lighting recommendations into all projects.
- **Fire suppression.** Dry invasive grasses combined with strong trade winds in the crater increases the threat of wildland fire. Invasive grasses are regularly herbicided along range roads. Fuel breaks and firebreaks within the impact area reduce the risk of fire spread. A water cannon system within Ulupa'u Crater is maintained to aid in quick suppression of any wildfires that venture too close to roosting and nesting trees. Strict regulations prevent accidental injury or killing of birds and ensure prompt reporting and response to fires should they occur.
- **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.



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

PHOTOS

1. Mated pair of red-footed boobies. Tim Sutterfield, 2007.
2. Red-footed booby adult with chick. David Pereksta.