



MCBH Environmental Compliance & Protection Division

The Inconspicuous Endangered Hawaiian Yellow-faced Bee

Marine Corps Base Hawaii is home to many endemic species, including the endangered Hawaiian yellow-faced bee (*Hylaeus anthracinus*). These unobtrusive native Hawaiian bees are largely unknown to many people due to their minute size and declining population numbers. The bees are approximately 6mm long (similar in size to a large ant) and are named for the distinguishing yellow mark located on the forehead (between the eyes) of the male bee. Females are entirely black and can be distinguished from males by the black hairs on the end of the abdomen and mandible.

These small, solitary invertebrates are pollinators, which contribute to the reproductive success of Hawaii's native plants such as Naupaka (*Scaevola sericea*), 'Ilima (*Sida Fallax*), 'Akoko (*Chamaesyce* spp.), and Nao (*Myoporum sandwicense*). All these plants can be found on the shorelines of MCBH beaches. Protecting this vegetation not only preserves the endangered Hawaiian yellow-faced bee (YFB) habitat but also helps to slow the progression of shoreline erosion.



Photo by USFWS

On MCBH, Yellow-faced bees nest in the coastal vegetation that borders our beaches. The YFB will sometimes inhabit dry shrublands. The bee makes its nest in the small cavities of decaying wood, openings of plants, and holes of coral fragments that have washed ashore. So, if you encounter a dying tree, living plants or *driftwood* or *coral fragments* on or near the beach above the high tide line, leave it be, this could be home to a Hawaiian yellow-faced bee!

Yellow-faced bees don't sting. They "build a little apartment for each egg, stocking the cupboards with pollen, food for when the larvae emerge. She seals the opening with a waterproof coating to protect her young from the elements and off she goes – her caregiving role complete."

The YFB faces many challenges to their long-term survival in Hawaii. Sea level rise and shoreline erosion has resulted in much habitat loss. Non-native plants have replaced many of the native plants the Hawaiian bee relies on. Furthermore, our bees compete with introduced bees and are displaced by predators like ants. “Years of evolution in isolation have left the yellow-faced bees defenseless and vulnerable to non-native predatory ants that crawl inside the nest and devour the young” (Jason Graham, UH). They are also killed by non-native predatory wasps.



Photo by Jason Graham, UH researcher

For more information on Hawaii’s natural resources, please contact the MCBH Environmental natural resources staff at (808) 257-7000 or (808) 285-6464.