

Special Report on Marine Turtle Beach Use in the Areas of South-East Oahu and North-West Lanai¹

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The Protected Species Division, Marine Turtle Research Program (MTRP) of the Pacific Islands Fisheries Science Center has been collecting data on marine turtle activity (captures, strandings, nesting, and basking) in the Hawaiian Islands since the 1970s. The Threatened Hawaiian green turtle population (Dutton et al. 2008) has been steadily increasing since the mid-1980s (Balazs and Chaloupka 2006, Chaloupka and Balazs 2007, Chaloupka et al. 2008) and is now well on the road to recovery. A result of the continuing recovery of the population is the common occurrence of resident green turtles in most of the coastal waters throughout the main Hawaiian Islands. Green turtles forage on algae and sea grass and rest underwater in nearshore reef and hard bottom habitats. The less commonly occurring and Endangered hawksbill turtle also utilizes these same habitats. Female sea turtles of both species occasionally use beaches in the main Hawaiian Islands at night for reproductive purposes during the nesting season (May to September). Additionally, at some locations individuals of both sexes and all post-pelagic sizes haul out of the water to bask on sand or rock. Basking occurs for variable periods of time, most commonly during daylight hours but at some locations also during the night.

For the purpose of this report, the southeast shore of Oahu is defined as the area from the east side of the Pearl Harbor entrance to approximately Waiahole Beach Park in Kaneohe. The section of Lanai that is relevant to this report is Polihua beach, on the northwest coast of the island. These locations were determined by the contractor (Tetra Tech Ec, Inc.).

Due to limited access to many of the coastal areas of Lanai and fewer people utilizing the coast, current available information on marine turtle activity on Lanai is modest. It should be noted that a lack of information does not necessarily indicate a lack of marine turtle activity.

Nesting - Oahu

Green turtle nesting was confirmed on the southeast shore of Oahu in 2008, specifically Kaupo Beach (across from Sea Life Park and just north of Makapuu Beach Park) and on Rabbit Island. Green turtle nesting was also confirmed to the north in Kahuku and on the northwest shore in Haleiwa. No green turtle nesting activity was documented on the south

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shore (Makapuu point to Barbers point) of Oahu during the 2008 nesting season. Additionally, strandings of both hawksbill and green turtle hatchlings from Kailua Bay to Waimanalo Bay along the southeast coast of the island in recent years (including 2008) indicates that nesting is likely to have occurred in the area. Even though no nesting has been documented on the south shore of Oahu, reports of green and hawksbill turtle nesting events in the main Hawaiian Islands are increasing and south shore beaches provide seemingly suitable habitat for marine turtle nesting. Nesting primarily occurs from May to September and hatchling emergence continues through November. Beaches should be monitored for nesting and hatching activity during this time period if any beach construction activities are in progress.

Nesting – Lanai

Polihua beach on the northwest shore of Lanai is a historical nesting site for Hawaiian green turtles (Balazs 1975, Balazs 1985). In 2008, a green turtle nest was documented on the southwestern end of Polihua beach. This was the first confirmed marine turtle nest at this location in several decades. Polihua beach provides suitable habitat for nesting, with the exception of the area around the beach access trail (20.920°N 157.036°W) which is affected by silt runoff. The beach should be monitored for nesting and hatching activity from May (beginning of nesting season) through November (end of hatching season) if any beach construction activities are in progress.

Basking - Oahu

No basking activity has been reported along the southeast shore of Oahu, however, confirmed basking sites are found on the northeast (Kahuku area), northwest (Mokuleia to Waimea Bay), and west (Aki's Cove and Ko'olina) shores of Oahu. At these locations, turtles haul out of the water and rest on the shore for up to several hours at a time, day or night. Any marine turtle seen hauled out of the water on the southeast shore of Oahu should be considered stranded and reported to the MTRP at (808) 983-5730.

Basking – Lanai

No basking activity has been reported on Polihua beach; however, basking is known to occur on the northeast shore of the island. Polihua beach is suitable substrate for basking and relatively close to known basking areas; therefore, any construction or habitat alteration activities should monitor the beach for basking turtles.

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