Hawksbill and Olive Ridley Sea Turtles

COMMON NAME: Hawksbill Turtle
HAWAIIAN NAME: *Honu'ua*
SCIENTIFIC NAME: *Eretmochelys imbricate*
LEGAL STATUS: Endangered (Federal/State). Endangered IUCN Red List. Protected under CITES.

APPEARANCE: Hawksbill turtles are a small to medium sized marine turtle; averaging two and a half feet in length and weighing 100 to 150 pounds (can grow as large as 200 pounds). The top shell is dark to golden brown with streaks of orange, red and black with a serrated back and overlapping thorny scales or plates. The bottom shell is clear yellow. They usually have 2 claws on each of their 4 flippers. Head is elongated and tapers to a point with a beak-like mouth.

HABITAT: Hawksbill turtles frequent rocky areas, coastal reefs, shallow coastal areas and estuaries, and prefer water less than 65 feet deep.

DIET: Hawksbill turtles are often associated with the coral reef community and feed primarily on sponges, other invertebrates, and algae.

REPRODUCTION: Hawksbill turtles nest in the MHI, predominantly on the Island of Hawai'i at the same beaches where they were born. Females nest every 2 to 3 years after they mature at about 30 inches in size (age unknown). Females lay an average of three to five nests (or clutches) of approximately 130 eggs each every 14 to 16 days. Eggs incubate for 2 months before hatching.

MCBH OCCURRENCE: Although no hawksbill turtles have been officially recorded within areas of MCBH jurisdiction, the environmental conditions are favorable for their presence. An October 2016 nesting on Bellows Air Force Station (adjacent to MCTAB) was suspected to be a hawksbill turtle.

CONSERVATION MEASURES: The same conservation measures afforded the green sea turtle will be applied to the hawksbill turtle where appropriate.

COMMON NAME: Olive Ridley Sea Turtle
SCIENTIFIC NAME: *Lepidochelys olivacea*
LEGAL STATUS: Threatened (Federal/State). Protected under CITES.

APPEARANCE: Adult olive ridley sea turtles average 100 pounds, are olive/grayish green in color and have a heart shaped top shell with five to nine pairs of thorny scales or plates. They have one to two claws on each of their four flippers. Hatchlings are mostly black with a bit of green on the sides.

HABITAT: Olive ridley sea turtles primarily spend time in the open ocean but have been known to inhabit coastal areas. They migrate from pelagic foraging to coastal breeding and nesting grounds, back to pelagic foraging. They are globally distributed in the tropical regions of the world.

Hawksbill and Olive Ridley Sea Turtles

DIET: Adult olive ridley sea turtles are carnivorous and feed on a wide variety of organisms, including fish and mollusks.

REPRODUCTION: Nesting occurs throughout tropical waters, but rarely in Hawai'i. Olive ridley sea turtles are known for their habit of mass synchronized nestings where hundreds to thousands of females come ashore at once to lay their eggs. Females nest once or twice a season every year after about 15 years of age. They produce a clutch of approximately 100 eggs and incubation takes 50 to 60 days.

MCBH OCCURRENCE: Although olive ridley sea turtles are rarely seen in Hawai'i, on July 16, 2009, one nested on MCBH's Pyramid Rock Beach; the first documented nesting on O'ahu. Although other known nestings occurred in on Maui (1985) and Hilo, Hawai'i (2002), the MCBH nesting was the most successful of all events, with over 50% of the eggs laid hatching in September 2009. Natural Resources staff collaborated with NOAA Fisheries and USFWS biologists to monitor the nest and relocate, protect, and conduct a public releasing of the hatchlings.

CONSERVATION MEASURES: The same conservation measures afforded the green sea turtle will be applied to the olive ridley sea turtle where appropriate.

REFERENCES

NOAA Fisheries Office of Protected Resources. Green Turtle, (*Chelonia mydas*).

NOAA Fisheries Office of Protected Resources. Hawksbill Turtle, (*Eretmochelys imbricata*).

NOAA Fisheries Office of Protected Resources. Olive Ridley Turtle, (*Lepidochelys olivacea*).

National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). 1998a. Recovery Plan for U.S. Pacific Populations of the Green Turtle (*Chelonia mydas*). National Marine Fisheries Service, Silver Spring, MD.

National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). 1998b. Recovery Plan for U.S. Pacific Populations of the Hawksbill Turtle (*Eretmochelys imbricatata*). National Marine Fisheries Service, Silver Spring, MD.

National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). 1998c. Recovery Plan for U.S. Pacific Populations of the Olive Ridley Turtle (*Lepidochelys olivacea*). National Marine Fisheries Service, Silver Spring, MD.

USFWS Pacific Islands Fish and Wildlife Office. Endangered Species in the Pacific Islands. Green Turtle/*Chelonis mydas*/Honu. Updated 25 March 2010.

USFWS Pacific Islands Fish and Wildlife Office. Endangered Species in the Pacific Islands. Hawksbill/*Eretmochelys imbricata*. Updated 25 March 2010.

For more information: MCBH Integrated Natural Resources Management Plan. 2022. Sections 6, 7.1, and 7.4.
FWC

PHOTOS

1. Andy Bruckner. NOAA
2. Green Sea Turtle Nesting Attempt at Fort Hase Beach, MCBH
3. Nick Caloyianis
4. Photographer unknown, Nesting Olive Ridley at Pyramid Rock Beach, MCBH.
5. Lance Bookless, MCBH, Olive Ridley Hatchlings at Pyramid Rock Beach, MCBH.

Nesting Beach Surveys
Topic: Crawl Identification

Adapted from Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute, Guidelines for Marine Turtle Permit Holders
PIFWO Version: June 2016

GLOSSARY OF TERMS

Crawl – Tracks and other sign left on a beach by a sea turtle.

False crawl – A crawl resulting from an abandoned nesting attempt (a non-nesting crawl).

Nest -- A crawl resulting from a nesting attempt in which eggs were deposited.

Egg chamber – The cavity excavated by the rear flippers of a nesting turtle into which the turtle deposits a clutch of eggs.

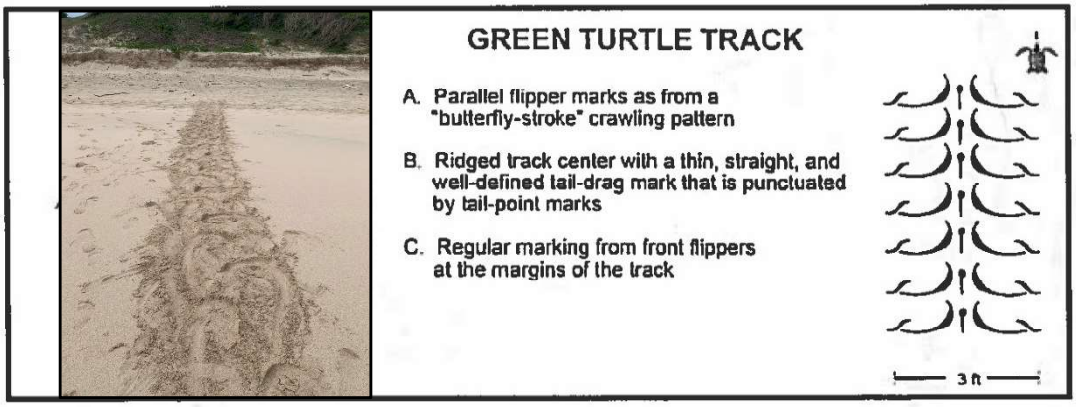
Primary body pit – The excavation made by a turtle on the beach just prior to digging the egg chamber.

Backstop – An approximately 45° incline made in the sand as sand is pushed back with the rear flippers during the excavation of the primary body pit. Such a steeply inclined backstop is not present in the secondary body pit.

Escarpment – The perimeter of the secondary body pit where the front flippers have cut away a small cliff into the surrounding sand.

CRAWL IDENTIFICATION

Green turtle (*Chelonia mydas*).tracks from a sea turtle with simultaneous limb movement, a center drag mark from the tail, and track width approximately 35 inches:



If the crawl is from a green turtle, is it a nest or a false crawl?

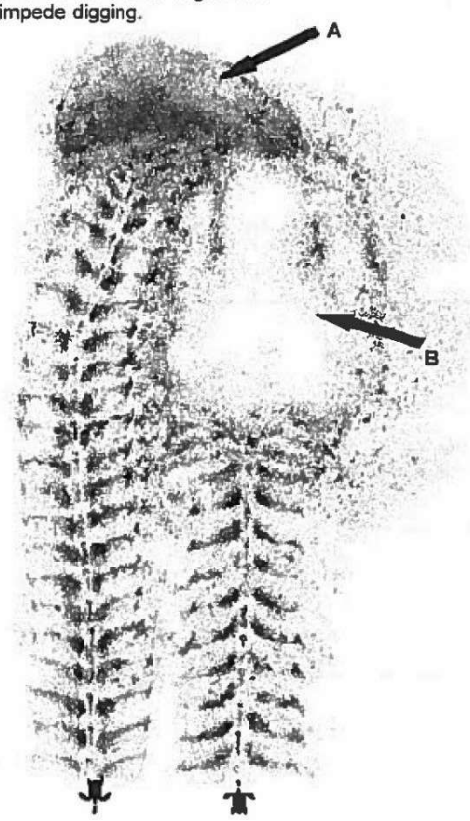
A. Identify emerging and returning tracks by their direction (Figure 1). As a green turtle crawls, it will push sand backward with each flipper stroke.

B. Follow the path taken by the turtle and look for the following attributes.

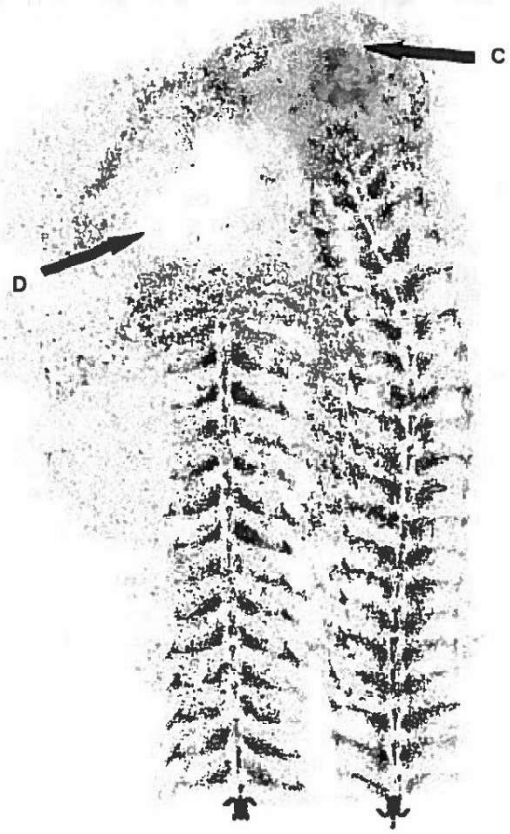
1. Evidence of front flipper covering (Figure 3). If present, the crawl is a **NEST**.
    a. Sand thrown into a mound that is more than twice as long as the visible body pit or a deep (1-2 foot) secondary body pit with an escarpment (Figure 3).
2. Evidence of an abandoned nesting attempt. If present, the crawl is a **FALSE CRAWL**.
    a. Very little or no sand disturbed other than tracks.
    b. Less sand thrown over the emerging track and a shallower body pit than in 1a above (Figure 3).

Figure 3. Characteristics of **green turtle crawls** indicating either that the turtle had previously nested (left a nest) or had abandoned its nesting attempt (left a "false crawl").

A **green turtle nest** site on an open beach showing a secondary body pit (**A**) and a mound of thrown sand (**B**) that is greater than twice as long as the visible secondary body pit. Note that smaller nest mounds are expected when obstacles or vegetation impede digging.



A **green turtle false crawl** on an open beach showing an abandoned primary body pit (**C**) and a mound of thrown sand (**D**) that is smaller than twice as long as the visible primary body pit. Note that many green turtle nests may have body pits and nest mounds that look similar to this.



Sea Turtles

Below is an example of signs put out by MCBH Natural Resources staff around turtle nests warning people to avoid the nesting area.

Sea Turtles

Below is an example of sticker and poster provided by MCBH Natural Resources to fishermen that fish on base to provide guidance in the case that they accidentally catch a turtle. An example of a sticker and poster providing information for boaters to avoid sea turtle strikes is also provided below. These materials are given out where vessels are rented and sold, and are placed on the gates to rental boats. Boat renters are also briefed in an orientation/education.

It's OK to Help!

Get this informative and FREE reflective sticker at fishing events and tournaments.

Know what to do if you accidentally catch a sea turtle while fishing in Hawaii

SAFETY FIRST
If safe to help

- **CALL HOTLINE** for technical guidance
- **REEL-IN** turtle with care
- **HOLD** turtle by its shell
- **CUT LINE** close to hook (leave hook)
- **RELEASE** with no line attached

For more information and tips on how to prevent or reduce the potential for interactions, visit the **FISHING AROUND SEALS AND TURTLES** program.

Tip: Use barbless circle hooks to help reduce sea turtle and monk seal injuries.

NOAA FISHERIES

Take a photo to link to the webpage.

Questions?
Contact: **RespectWildlife@noaa.gov**
For marine animals in distress, call the Marine Animal Response Hotline: **(888) 256-9840**

Prevent a Boat Strike

- **Post-a-lookout!**
- **Drive slowly** (5-10 knots)
  - Over shallow reef areas
  - Near harbors and boat launches
- **Adhere to no wake zones.**
- **Wear polarized sunglasses** to help see and avoid turtles.
- **Never feed** turtles so they do not associate boats with food.

REMEMBER: *Sea turtles surface to breathe often, and turtles living near harbors are most at risk of a boat strike.*

Report injured or dead marine animals to **(888) 256-9840**

NOAA FISHERIES