Science, Service, Stewardship

NOAA FISHERIES SERVICE

Pacific Islands Region

Identification, Handling, and Release of Protected Species

Sea Turtles

Marine Mammals

Seabirds

U.S. Department of Commerce | National Oceanic and Atmospheric Administration | National Marine Fisheries Service

Sea Turtle Handling Guidelines

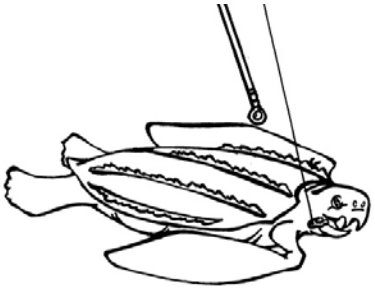
STEP 1:

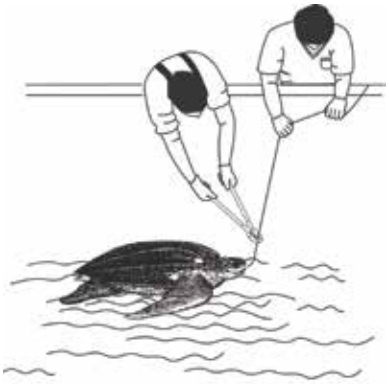
Determine if the turtle is small enough to bring aboard.

Remember to use gaffs only on fishing gear, not on turtles

IF TURTLE IS TOO BIG TO BRING ABOARD:

- Bring turtle close to boat by pulling gently on the line.
- Determine if turtle is hooked or entangled, and choose the proper tools to remove as much fishing gear as possible from the turtle – including the hook.
- If turtle is hooked and the hook is visible just inside the mouth or on the body, use long handled dehooker to remove hook. See **Step 3** for instructions.
- If turtle is entangled or the hook is deep inside mouth or throat and cannot be removed, use a long-handled line cutter to cut all lines.
- Skip to **Step 5**.





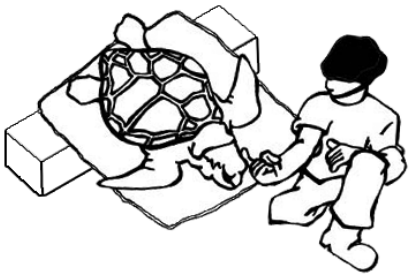
IF TURTLE IS SMALL ENOUGH TO BRING ABOARD:

- Use dip net to bring turtle aboard.
- Do not bring turtle aboard by pulling on fishing line or by grabbing the eye sockets.
- It may be helpful to grab the front flippers close to the turtle's body when using the net to help bring it aboard.
- Go to **Step 2**.

STEP 2:

After the turtle has been brought aboard, determine if it is alive or appears dead.

A turtle that looks dead may just be very tired, and can regain strength with your help.



UNCONSCIOUS TURTLE - inactive and appears dead

- Keep the turtle on a tire in a secure, shaded place away from activity.
- Remove fishing gear using instructions in **Step 3**.
- Place turtle on its belly and elevate back flippers at least 6 inches for at least 4 hours to help remove water from its lungs while recovering.
- Place a wet towel on turtle. Do not cover nostrils. Occasionally wet turtle with a deck hose. Avoid spraying turtle's head.
- Perform a reflex test every 3 hours, by gently touching corner of eye and lightly pulling on tail. Movement may indicate the turtle is recovering.
- If there is no movement from reflex tests after at least 4 hours, but no more than 24 hours, release the turtle to the ocean using methods in **Step 4**.

CONSCIOUS TURTLE - active or awake

- Keep the turtle on a tire in a secure, shaded place away from activity.
- Remove fishing gear using instructions in **Step 3**.
- Release the turtle using methods in **Step 4**. You do not have to wait 4 or more hours before release.

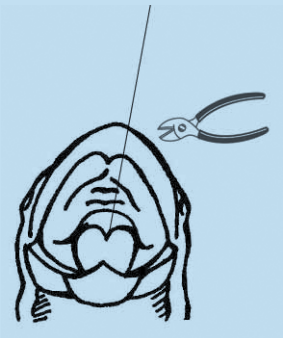
Questions? Call Pacific Islands Regional Office, Sustainable Fisheries Division at (808) 725-5000

When to Leave Hooks in Place.

It is normally best to remove all fishing gear from the turtle, but there are situations when the gear should not be removed. Leave hook in place and cut line as close as possible to hook if:

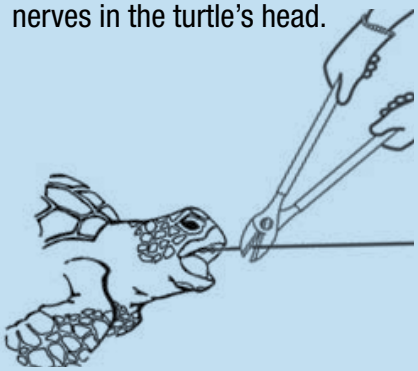
The hook has been swallowed.

Forcing a dehooking device down a turtle's throat may worsen its injuries or cause an infection.



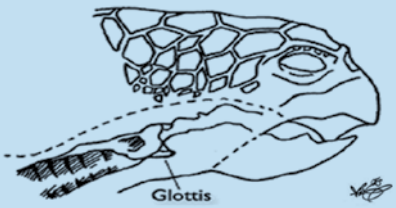
The hook has penetrated the roof of the mouth.

Trying to remove this hook may cause damage to the organs and nerves in the turtle's head.



The hook is in the glottis.

The glottis is located at the back of the mouth and covers the airway. Attempting to remove hooks from the glottis may cause further damage and prevent the turtle from covering its airway during dives.

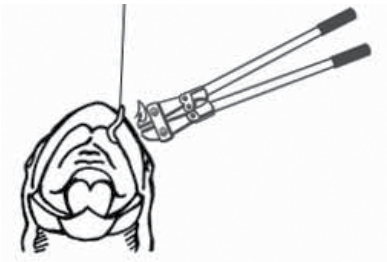


STEP 3:

Methods for removing fishing gear from a hooked turtle.

TURTLE HOOKED WITH BARB EXPOSED

1. Using bolt cutters, remove the barb of the hook.
2. Once barb has been clipped off, back the hook out to remove it.



TURTLE HOOKED WITH BARB EMBEDDED

1. Follow instructions on using a pig-tail dehooker.
2. If hook cannot be removed, cut line as close as possible to hook.

TURTLE IS HOOKED, BUT YOU CANNOT SEE HOOK

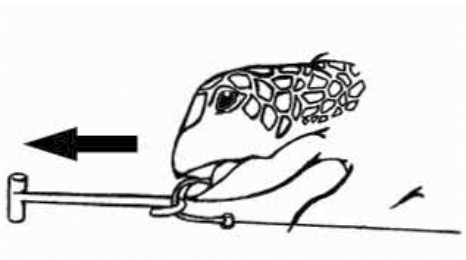
- Cut fishing line as close as possible to hook without pulling hard on line.

TURTLE ENTANGLED IN FISHING LINE

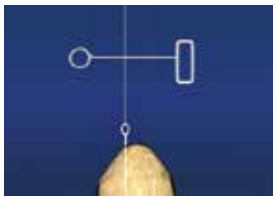
- Use monofilament or wire cutters to remove all fishing line from turtle.

IF BOLT CUTTERS ARE NOT AVAILABLE

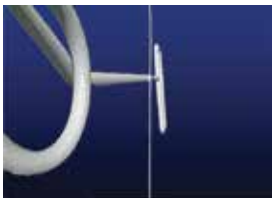
1. Place a pig-tail dehooker or similar hand-held tool on the line above the hook. To get the dehooker on the line, refer to pig-tail dehooker instructions.
2. Slide device down the line to the bottom of the hook.
3. Pull the line so it is opposite from the handle of the dehooker.
4. Keep the line tight, then pull and twist the dehooker to remove the hook.

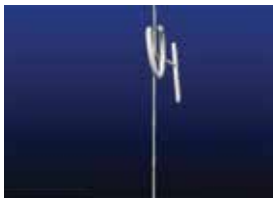


Dehooking J-hooks using a pig-tail dehooker with your right hand:



Place the dehooker at 90^0 to the line with the end of the pig-tail facing up.





Draw the dehooker back towards you like a bow and arrow until loop pulls on line, maintaining contact between the dehooker and the line.

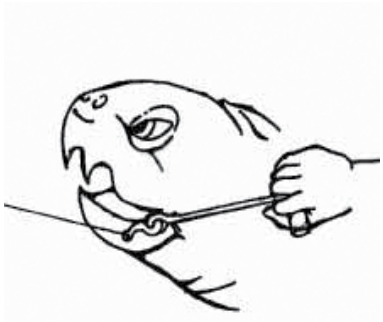
Rotate the dehooker 1/4 turn clockwise. (The line should be inside the curl of dehooker)

Run the dehooker down the line until it engages the bottom bend of the hook.

Pull the line tight and parallel to the dehooker. Give quick thrusts to remove the hook.

Keep line tight, so the hook remains inside the curl of dehooker, until hook is clear of the turtle.

Circle Hooks



When using the long-handled pig-tail dehooker on a turtle in the water, it may be easier to remove circle hooks if the line is not parallel to the dehooker's handle once the dehooker is on the line.

- While keeping the line tight, separate the line and dehooker, then try to push and twist the dehooker to dislodge the hook. This may work better than quick thrusts.
- If you cannot remove the hook, cut line as close as possible to the hook.
- If turtle is aboard, try to rotate the hook back out by using the line or pliers before using the dehooker. This may help remove the hook.

STEP 4:

Carefully return turtle to water.

1. Stop vessel, and take engine out of gear.
2. Release the turtle away from any fishing gear in the water.
3. Gently put turtle in the water, head-first.
4. Make sure turtle is clear of vessel before motoring away.

STEP 5:

Record the interaction in your logbook.

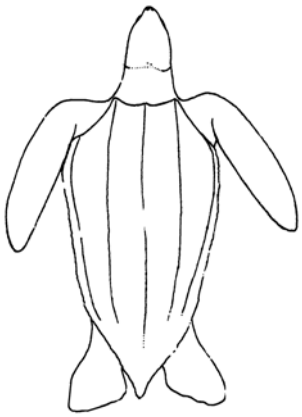
1. Record the identified species.
2. Write down how much fishing gear remained on turtle after release.
3. Record any tag numbers observed on turtle.

Photo courtesy of Steve Beverly

Questions? Call Pacific Islands Regional Office, Sustainable Fisheries Division at (808) 725-5000

LEATHERBACK

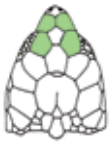
- Dark, leathery skin covers body and shell
- No scutes or scales like other turtles
- 5-7 head to tail ridges on back
- Adults are much larger than other turtles



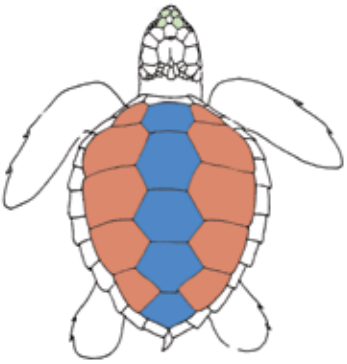
Hard Shell Turtles

GREEN

- 1 pair of prefrontal scales
- 5 central scutes
- 4 pairs of lateral scutes
- 4 inframarginal scutes on each side



TOP VIEW OF HEAD



TOP VIEW

BOTTOM VIEW OF TURTLE

Prefrontal Scales
Central Scutes
Lateral Scutes
Inframarginal Scutes

LOGGERHEAD

- 2 pairs of prefrontal scales
- 5 central scutes
- 5 pairs of lateral scutes
- 3 inframarginal scutes on each side

HAWKSBILL

- 2 pairs of prefrontal scales
- 5 central scutes
- 4 pairs of overlapping lateral scutes
- 4 inframarginal scutes on each side

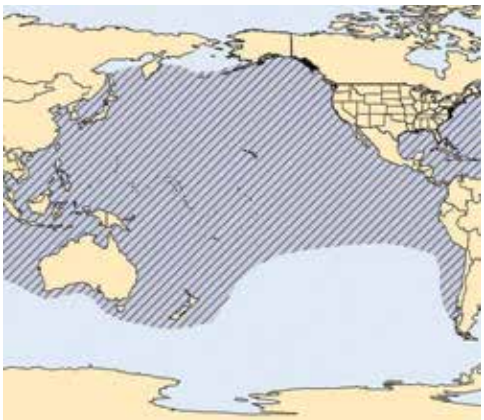
OLIVE RIDLEY

- 2 pairs of prefrontal scales
- 5 central scutes
- 5-9 pairs of lateral scutes
- 4 inframarginal scutes on each side with pores

Leatherback Sea Turtle

(Dermochelys coriacea)

- Only soft-shelled species
- Dark gray or black with variable white spotting
- 5-7 head-to-tail ridges on back
- Leathery shell
- No scales
- W-shaped upper jaw or beak
- May attain great size



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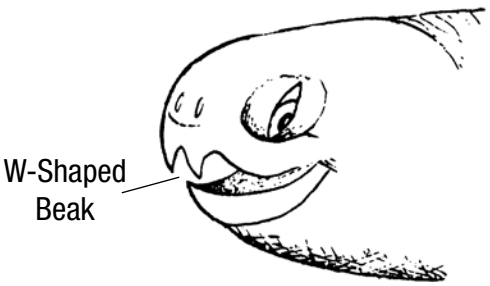
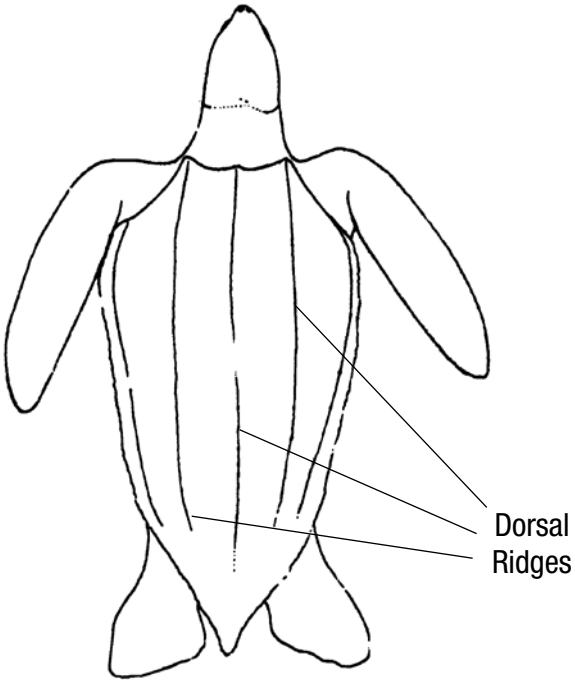


SIDE VIEW
OF HEAD



TOP VIEW

TURTLE FACTS:

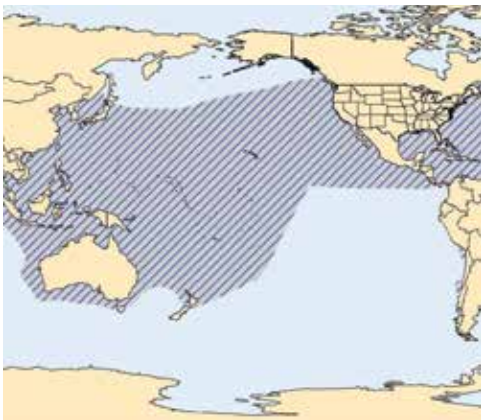
Leatherback turtles interact with both the Hawaii swordfish (shallow-set) and tuna (deep-set) longline fisheries. They are usually hooked or entangled externally, rather than in the mouth. This turtle has a firm, leathery skin covering the shell and body, instead of a hard shell and scales like other turtles. They are highly migratory, swimming long distances across the Pacific from nesting to foraging areas. Leatherbacks are the largest of all sea turtles with adults reaching 6½ feet (2 meters) in length and over 1,500 pounds (681 kg).

Questions? Call Pacific Islands Regional Office,
Sustainable Fisheries Division at (808) 725-5000

Loggerhead Sea Turtle

(Caretta caretta)

- 2 pairs of prefrontal scales
- 5 central scutes
- 5 pairs of lateral scutes
- 3 pairs of inframarginal scutes



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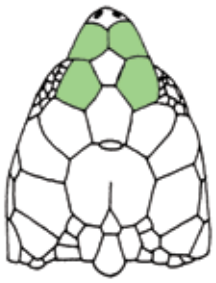

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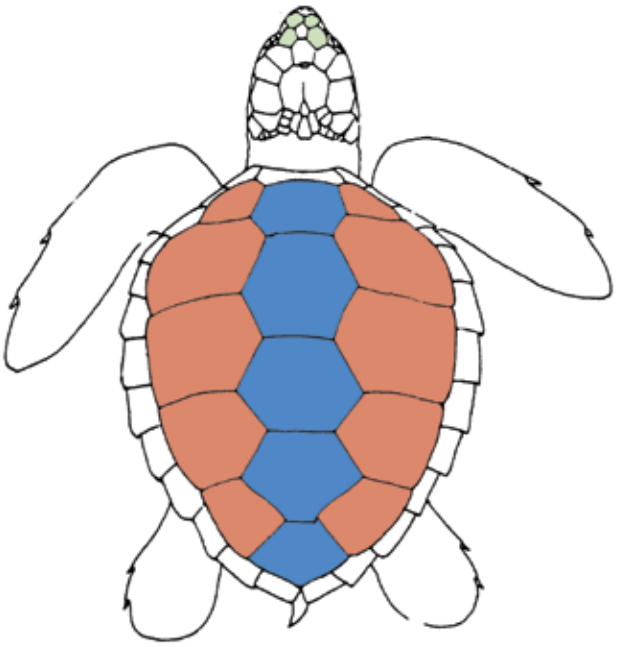

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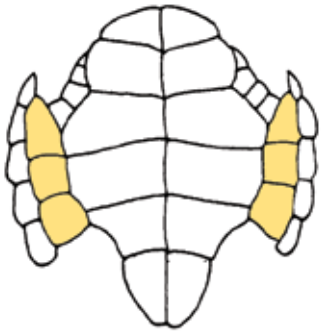


BOTTOM VIEW OF TURTLE

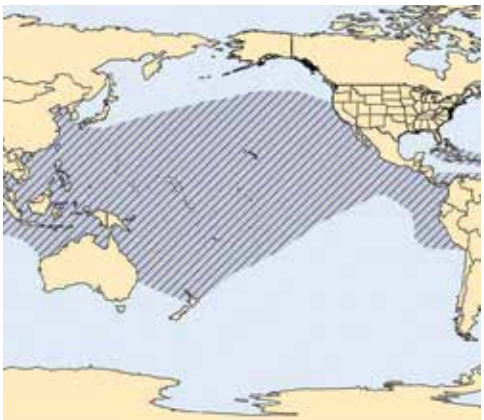
TURTLE FACTS:

Loggerhead turtles interact with both the Hawaii swordfish (shallow-set) and tuna (deep-set) longline fisheries. In the North Pacific, juveniles hatched from nests in Japan swim across the ocean to feed and grow near the Mexican coast. They can spend decades in migratory and developmental habitats in Mexico and the central Pacific until maturity, when they return to Japan. Loggerheads can grow to over 36 inches (92 cm) in shell length and 250 pounds (113 kg). They have large heads, strong jaws, and typically have shells that are reddish-brown with a yellow underside.

Olive Ridley Sea Turtle

(Lepidochelys olivacea)

- 2 pairs of prefrontal scales
- 5 central scutes
- 5-9 pairs of lateral scutes
- 4 pairs of inframarginal scutes with one pore on each scute



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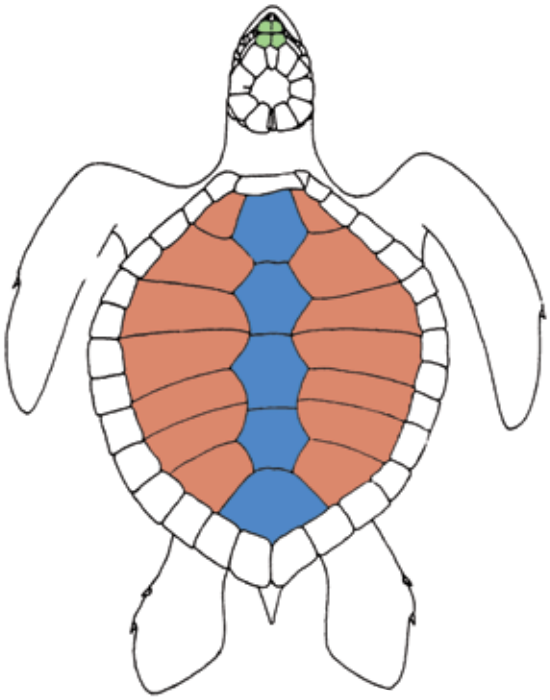

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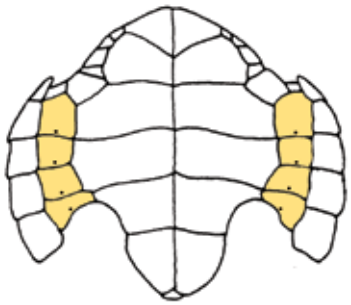


BOTTOM VIEW OF TURTLE

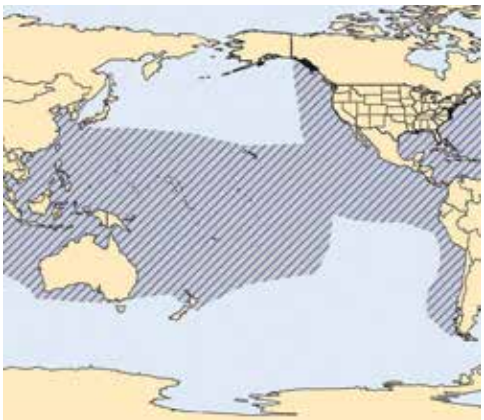
TURTLE FACTS:

Olive ridley turtles interact primarily with the Hawaii tuna (deep-set) longline fishery, and occasionally with the swordfish (shallow-set) fishery. These turtles are highly migratory and usually live in warm, tropical waters, but may also occur in cooler waters north of Hawaii. Olive ridley turtles are the smallest sea turtles, averaging 25 inches (61 cm) in shell length and 100 pounds (45 kg). Their shell is generally olive green with a light yellow underside. They sometimes have more lateral scutes on one side of their shell than the other. They are the only turtles in the Pacific with a pore on each inframarginal scute.

Green Sea Turtle

(Chelonia mydas)

- 1 pair of prefrontal scales
- 5 central scutes
- 4 pairs of lateral scutes
- 4 pairs of inframarginal scutes



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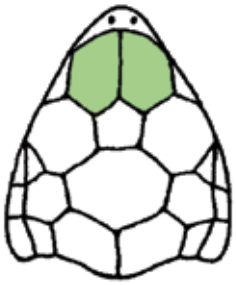

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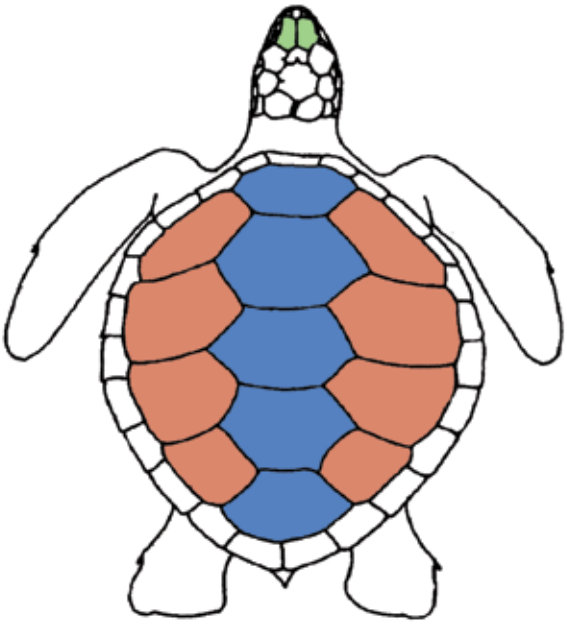

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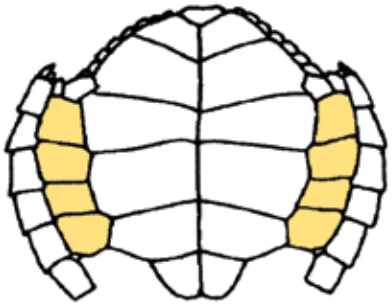


BOTTOM VIEW
OF TURTLE

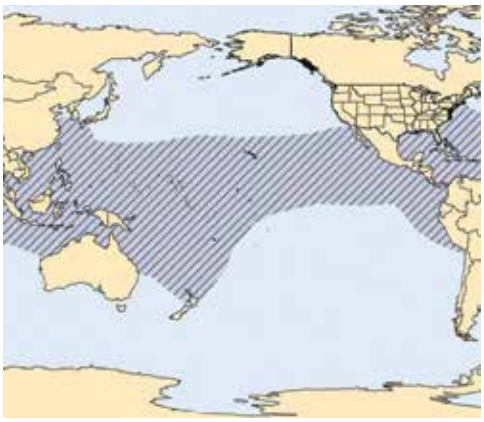
TURTLE FACTS:

The green turtle is the most widespread and commonly-known sea turtle in tropical and sub tropical waters. Green turtles are not usually caught in longline fisheries, but interactions can occur in the Hawaii and American Samoa fisheries. Green turtles are the largest of the hard-shell turtle species and can grow up to 47 inches (120 cm) in shell length and weigh over 300 pounds (136 kg). They get their name from the color of their fat. The shell color can range from yellow-green to reddish-brown to almost black. Loggerheads and olive ridley turtles can be easily mistaken for a green turtle. When in doubt, look at the head and check the number of prefrontal scales.

Hawksbill Sea Turtle

(Eretmochelys imbricata)

- 2 pairs of prefrontal scales
- 5 central overlapping scutes
- 4 pairs of overlapping lateral scutes
- 4 pairs of inframarginal scutes



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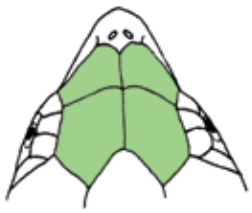

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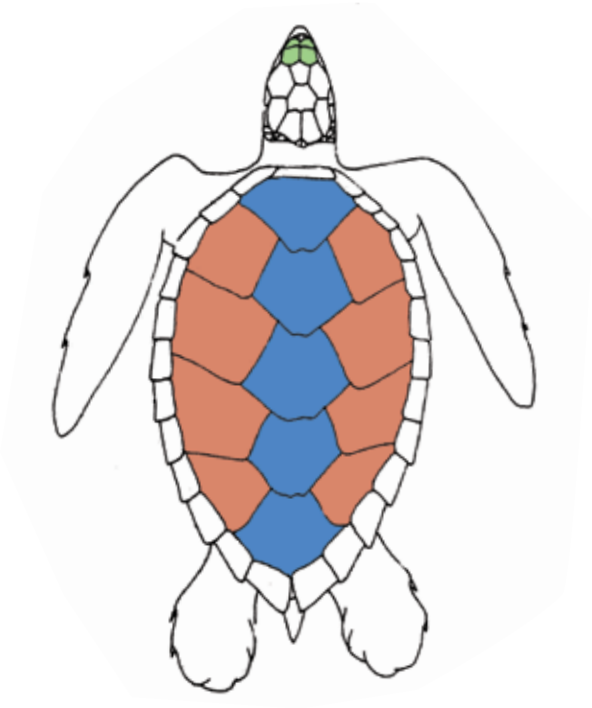

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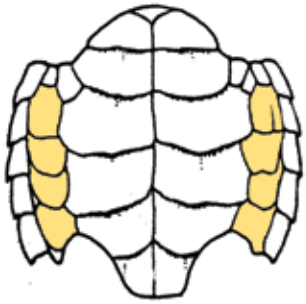


BOTTOM VIEW
OF TURTLE

TURTLE FACTS:

There has been no reported interaction between a hawksbill turtle and the Hawaii longline fisheries. Hawksbills can be found in tropical and sub-tropical regions across the Pacific. They nest in low numbers throughout the Pacific, including Hawaii. Adult hawksbills can grow to almost 3 feet (90 cm) in shell length and weigh up to 200 pounds (91 kg). The hawksbill is named for its sharp, pointed, bird-like beak. The shell has "tortoise shell" coloring, ranging from dark to golden brown, with streaks of orange, yellow, brown and black. These are the only sea turtles that have overlapping scutes on the top shell, like roof shingles.

Questions? Call Pacific Islands Regional Office,
Sustainable Fisheries Division at (808) 725-5000

SAFETY FIRST! Hooked or entangled marine mammals can be very powerful and unpredictable.

NOTE: This page is not a substitute for the NOAA Fisheries Marine Mammal Handling and Release Guidelines placard that is required to be posted on Hawaii-based longline vessels.

Small Whales and Dolphins *(such as short-finned pilot whales, false killer whales, and Risso's dolphins)*

1. Make sure the crew is ready to help, and have dehooking and line-cutting equipment available.
2. Avoid sudden actions and movements that may scare the animal.
3. Do NOT use gaffs or sharp objects to grab or hold an animal.
4. **Determine if the animal is hooked or entangled.**

False Killer Whale

Risso's Dolphin

If the animal is hooked:

1. Maintain tension on the line, giving the hook a chance to straighten and release the animal without the hook or trailing line attached.
2. If the hook does not straighten, use a dehooker to remove the hook.
3. If the hook is not straightened or removed, use a long-handled line cutter to cut the line as close as you can to the hook.

If the animal is entangled:

1. If the mainline and branchline are tangled around the animal, secure the far side of the mainline to the boat. This will keep any remaining gear in the water from pulling on the line and the animal.
2. Use a long-handled line cutter to cut as much line off the animal as you can.

Large Whales *(such as fin whales, sperm whales, and humpback whales)*

- If a large whale is alive and hooked or entangled in fishing gear, immediately call the Disentanglement Hotline at 1-888-256-9840, or the U.S. Coast Guard on VHF Ch.16 for instructions.
- Move the vessel to minimize tension on the fishing gear.
- If a large whale is dead and hooked or entangled in fishing gear, immediately call the U.S. Coast Guard on VHF Ch.16 for instructions.

Humpback Whale

For All Interactions

- **The captain must be notified to supervise the handling and release of the animal**.
- Have an identification guide, pen and paper available.
- Write down a description of the animal and its injuries (take photos if possible):
  - How long was the animal?
  - What did the animal look like? Did it have stripes, spots, or different colors?
  - Was there fishing gear on the animal when it was released? If so, where, what kind, and how much?
  - Did you see any tags on the animal? If yes, did you see any letters or numbers on the tag?

After an interaction with a marine mammal, get the rest of your fishing gear out of the water. Then record all the information about the interaction on your Marine Mammal Authorization Program Mortality / Injury Reporting Form, even if you had an observer aboard. Mail the form when you get to port.

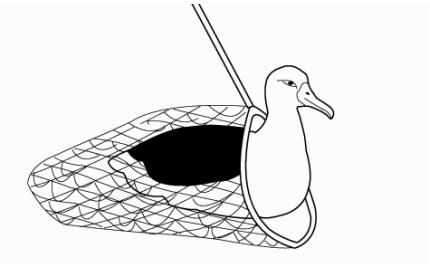
CAUTION: Whales and dolphins may become hooked or entangled by longline gear, especially while eating bait or catch. If you suspect marine mammals are eating your bait or catch, consider moving 100 kilometers / 54 nautical miles or more to reduce the chance of marine mammal interactions.

Questions? Call Pacific Islands Regional Office, Sustainable Fisheries Division at (808) 725-5000

Seabird Handling Guidelines

PLEASE NOTE: If bird is a short-tailed albatross, follow special guidelines for handling short-tailed albatross. For all other seabirds, see below.

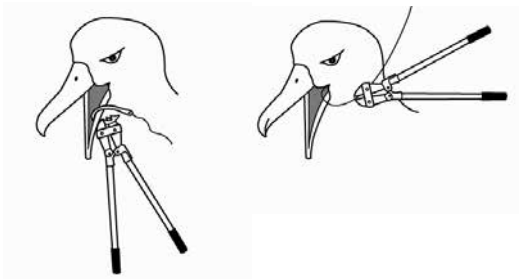
1. Stop vessel to reduce tension on the line and bring bird aboard using a dip net.



2. Working with another person, hold the back of the bird's head and isolate the hooked or entangled area while the other person takes the bird from the net. Fold the bird's wings to their natural resting position against the body.

3. Wrap the bird's wings and feet with a clean towel or blanket. Do not wrap the bird's body too tightly or block the nostrils, as these will prevent the bird from breathing.

4. Cut and remove all fishing line from bird. If bird is lightly hooked in the bill, leg, or wing, and the barbed end of the hook is visible, use bolt cutters to cut the barb and then back the hook out. If bird has been deeply hooked, cut the line as close as possible to hook and leave hook in place.



Never attempt to remove a hook from anywhere on a bird by pulling on line.

5. Allow bird to dry for 1/2 hour to 4 hours in a safe, enclosed place. Refer to **Release Guidelines.**

6. Record any leg band numbers observed on the bird in logbook.

Wear gloves, long sleeves and protective eyewear when handling seabirds. They have sharp beaks and give painful bites.

Release Guidelines

A bird is ready for release when its feathers are dry.

Albatross NOT ready to be released

Albatross ready to be released

If bird is ready for release:
Stop the vessel. Gently place bird onto the surface of the water. Do not throw bird in air or motor away if bird is not clear of vessel.

Questions? Call Pacific Islands Regional Office, Sustainable Fisheries Division at (808) 725-5000

Short-Tailed Albatross Handling Guidelines

Short-tailed albatross are an endangered species and have special handling requirements.

If you catch a short-tailed albatross:

Immediately try to contact National Marine Fisheries Service, U.S. Coast Guard, or U.S. Fish and Wildlife Service. They will contact an expert to give you advice in the handling and release of short-tailed albatross.

National Marine Fisheries Service (NMFS)
(808) 725-5000

U.S. Coast Guard (USCG)
08240.0 KHz (Daytime ITU Channel 816)
12242.0 KHz (Daytime ITU Channel 1205)
04134.0 KHz (Nightime ITU Channel 424)
06200.0 KHz (Nightime ITU Channel 601)

U.S. Fish and Wildlife Service at French Frigate Shoals (USFWS)
Contact frequency: 10.0054

If a short-tailed albatross is hooked or entangled:

1. Stop vessel to reduce tension on the line and bring bird aboard using a dip net.
2. Wrap the bird's wings and feet with a clean towel to protect its feathers from oils or damage.
3. Remove any entangled lines from the bird and determine if the bird is dead or alive.

   If dead, notifiy NMFS. Label the bird, put it in a plastic bag and store in freezer. Give bird to NMFS when you return to port.

   If alive, place bird in a safe, enclosed place and immediately contact NMFS, USCG and USFWS.

   If unable to make contact for 24-48 hours, determine if the bird is lightly, moderately, or deeply hooked. See description.
4. If bird is deeply hooked, keep bird in a safe, enclosed place until further instructed. Do NOT release the bird.
5. If bird is lightly or moderately hooked, remove hook by cutting the barb and backing hook out.
6. Allow bird to dry for 1/2 hour to 4 hours in a safe, enclosed place. Refer to **Release Guidelines.**
7. Record information in the short-tailed albatross recovery data form.

Short-tailed albatross fly across the entire North Pacific. Around Hawaii, only young short-tailed albatross (shown above) have been seen. The number of birds is increasing, but fewer than 4,000 birds remain in the wild.

Is the bird lightly, moderately, or deeply hooked?

Lightly Hooked: Hook is clearly visible on bill, leg or wing.

Moderately Hooked: Hooked in the mouth or throat with hook visible.

Deeply Hooked: Hook has been swallowed and is located inside the bird's body below the neck.

Release Guidelines

The bird is ready for release if it meets ALL of the following criteria:

- Stands on both feet with toes pointed forward
- Holds its head erect and responds to sound and motion
- Breathes without making noise
- Flaps and retracts wings to normal folding position
- Feathers are dry

If any of these conditions are not met, the bird cannot be released.

If bird is ready for release:
Stop the vessel. Gently place bird onto the surface of the water. Do not throw bird in air or motor away if bird is not clear of vessel.

Questions? Call Pacific Islands Regional Office, Sustainable Fisheries Division at (808) 725-5000

Laysan Albatross *(Phoebastria immutabilis)*

Feathers:
- White head, neck, and belly
- Dark brown upper wings and back
- Brown and white under wings
- Dark area around each eye

Legs/Feet Color: Pink to gray

Bill Color: Yellow-pink with gray tip

Black-footed Albatross *(Phoebastria nigripes)*

Feathers:
- Dark brown head, body, and wings
- Small white patch behind the eyes
- White ring around base of bill
- Adults - small white patch at base of tail

Legs/Feet Color: Black-brown

Bill Color: Black-brown

Short-tailed Albatross *(Phoebastria albatrus)*

ENDANGERED SPECIES

JUVENILE

Feathers: Dark brown head, body, and wings

Legs/Feet Color: Brown-gray

Bill Color: Bright pink with a thin black line around base

SUB ADULT

Feathers:
- White neck, belly, and back
- Dark brown cap and back of neck
- Black and white wings

Legs/Feet Color: Pink to gray

Bill Color: Bright pink with a thin black line around base

ADULT

Feathers:
- Golden-yellow head and neck
- White back, base of tail, and belly
- Black and white wings

Legs/Feet Color: Pink to gray

Bill Color: Bright pink with a thin black line around base

Questions? Call Pacific Islands Regional Office,
Sustainable Fisheries Division at (808) 725-5000