SEFSC
Sea Turtle
Observer Manual

January 2009

http://www.sefsc.noaa.gov/seaturtlefisheriesobservers.jsp

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Sea Turtle Life History Form Manual

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SEA TURTLE LIFE HISTORY FORM

01/09

CAPTURE INFORMATION

TRIP ☐☐☐☐☐☐ **YEAR 20**☐☐ **MONTH**☐☐ **DAY**☐☐

SET/HAUL/TOW ☐☐☐ **SPECIMEN NUMBER BY TRIP** ☐☐☐

GEAR TYPE: ☐**Longline** ☐**Gill Net** _____ ☐**Trawl**_____ (note time in comments)
GEAR DEPTH: ☐**Surface** ☐**Midwater** ☐**Bottom** ☐ **Other** _____

TIME (24 hr) ☐☐☐☐ **WATER TEMP (°F)** ☐☐.☐

LATITUDE☐☐**deg**☐☐.☐**min N / S** **LONGITUDE**☐☐☐**deg**☐☐.☐**min E / W**

Did turtle slide out/escape from gear? Y / N **Was turtle brought on board? Y / N**

IDENTIFICATION (see back) **Number of Photos Taken?** ☐☐

SPECIES: ☐**Leatherback** ☐**Loggerhead** ☐**Kemp's ridley** ☐**Green** ☐**Hawksbill** ☐**Olive ridley**
☐**Unidentified Hardshell** ☐**Unknown**

CONDITION OF TURTLE AT CAPTURE ☐ **Injured** ☐ **Uninjured** ☐ **Unknown**
(Please check injury status above as well as condition below; complete condition evaluation on p. 2 for any not coded "alive")

☐**Previously dead** ☐**Fresh dead/comatose/unresponsive** **Attempted resuscitation? Y / N**
☐**Alive** ☐**Unknown (describe)** ☐**Other (describe)** _____

IF GEAR IS A FORM OF HOOK AND LINE, COMPLETE THIS SECTION, AS APPLICABLE:

HOOK TYPE ☐ **"J"** ☐ **Circle** ☐**other (describe)** _____ **SIZE** ☐☐**/0**
MANUFACTURER/STYLE NO. _____ **DEGREE OFFSET** ☐☐°
BAIT ☐**Squid** ☐**Mackerel** ☐**Sardine** ☐**Unknown** ☐**Other (describe)**_____**SIZE**_____
Caught on hook timer? Y / N **If yes, fill in time elapsed** ☐☐ ☐☐
Was light stick on hook? Y / N / U / Not Applicable **Lightstick Type (circle) : Chemical / LED**
If yes (circle) White, Pin**k**, **B**lue, **G**reen, Bl**a**ck, **R**ed, **Y**ellow, **P**urple, **O**ther, **U**nknown
If No, number of gangions to next light stick☐☐
Light Stick Color (circle)? **W**hite, Pin**k**, **B**lue, **G**reen, Bl**a**ck, **R**ed, **Y**ellow, **P**urple, **O**ther, **U**nknown
Number of gangions to next float ☐☐

HOOK LOCATION (See Appendix in manual for descriptive figures)
(circle specific location; check box if specifics are not known; annotate drawing on reverse to indicate location as needed):

☐ **Not Hooked** ☐ **Not Known if Hooked** ☐**Hooked, but location totally Unknown**

Internal: ☐ **Unknown, internal**
☐ **Swallowed (Esophagus)** **Hook visible? Visible to insertion point / Partial hook / Not visible**
☐ **Beak/ Mouth (Circle one)** **Jaw Location (Check one)** ☐**upper** ☐**lower** ☐**side (mouth only)**
Check one for mouth: ☐ **tongue** ☐ **glottis** ☐ **roof of mouth** ☐ **jaw joint** ☐**other (describe)**

External: ☐**Unknown, external** ☐**Beak/Head/Neck** ☐**Carapace/Plastron**
☐**Front Flipper/Shoulder/Armpit** ☐**Rear Flipper/Groin/Tail**

Was hook removed from this animal? Y / N / Unknown / Not Applicable

---

Was animal entangled in gear? At capture? Y / N / Unknown **At Release? Y / N / Unknown**
How much gear (linear feet) was left on turtle when released? ☐☐☐.☐ **ft. (estimated/measured)**

BIOLOGICAL INFORMATION

Estimated carapace length (notch-to-tip straight line): ☐☐.☐ **ft (needed only if turtle is not boated & measured)**

DIMENSIONS (cm)	**Curved (measuring tape) Standard Measurements**	**Straight Line (calipers) Standard Measurements**	**Straight Line (calipers)**
Carapace Length	☐☐☐.☐ **notch-to-tip**	☐☐☐.☐ **notch-to-tip**	☐☐☐.☐ **notch-to-notch**
Carapace Width	☐☐☐.☐	☐☐☐.☐	

TAGS (identify address on each tag in the comments section)

Flipper Tag Number	**Metal (1) or Plastic (2)**	**Position (Flipper) LF, RF, LR, RR**	**Already Present (1) or Applied by Observer (2)**	**Were Tags Removed?**
☐☐☐☐☐☐	☐	☐☐	☐	**Y / N**
☐☐☐☐☐☐	☐	☐☐	☐	**Y / N**
☐☐☐☐☐☐	☐	☐☐	☐	**Y / N**
☐☐☐☐☐☐	☐	☐☐	☐	**Y / N**

PIT Tag

☐☐☐☐☐☐☐☐☐☐ ☐☐ ☐ **Scanned? Y / N**

Living Tag (describe)_____ **Other Tags (describe)** _____

(Put PIT tag label here)

BIOPSY SAMPLES TAKEN? **Y** (itemize below) **/ N** / **U**nsuccessful

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RELEASE INFORMATION

LATITUDE ☐☐**deg**☐☐.☐**min N / S** **LONGITUDE** ☐☐☐**deg**☐☐.☐**min E / W**

TIME (24 hr) ☐☐☐☐ **WATER TEMP (°F)** ☐☐.☐

DATE, if different from capture: YEAR 20☐☐ **MONTH**☐☐ **DAY**☐☐

FINAL DISPOSITION

☐ **Discarded Dead/Comatose/Unresponsive Carcass** **Marked? Y / N**

☐ **Salvaged Carcass/Parts** ☐ **Released Alive** ☐ **Taken to Holding Facility** ☐ **Unknown (explain)**

ADDITIONAL COMMENTS (list all biological samples collected; describe/sketch anomalies):

_____

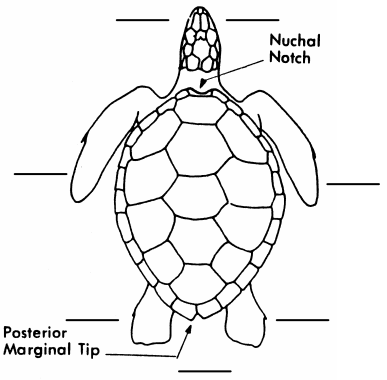
_____

_____

_____

_____

_____



IDENTIFICATION CRITERIA

Number of:			
Left Lateral Scutes ☐	**Overlapping Scutes?**	**Y / N / U**	**CONDITION EVALUATION FOR TURTLES NOT CODED "ALIVE"**
Right Lateral Scutes ☐	**Inframarginal Pores?**	**Y / N / U**	**Check each line on diagram above**
Vertebral Scutes ☐	**1 Pair Prefrontal Scales?**	**Y / N / U**	**to indicate positive reflex/responsiveness**
L. Inframarginal Scutes ☐	**Lacks Bony Shell?**	**Y / N**	**Rigor Mortis Y / N / U**
R. Inframarginal Scutes ☐	**Does Nuchal Scute Touch 1st Lateral Scute?**	**Y / N / U**	**Rotting Flesh Y / N / U**
			Foul Smell Y / N / U

Dorsal Coloration ☐**Black** ☐ **Orange/Red-Brown** ☐**Brown** ☐**Gray-Green** ☐ **Other**_____

SEA TURTLE LIFE HISTORY FORM

01/09

INTRODUCTION

The Sea Turtle Life History Form is used for recording biological data on sea turtles. These data will be used to determine the number, species, size and condition of sea turtles involved in the fishery. Other data are recorded on the movements and preferred habitats of the various populations of sea turtles. These data are critical to the development of conservation and recovery strategies for these marine reptiles.

Only authorized personnel may conduct the procedures described in this manual while working with listed threatened or endangered sea turtles. The Endangered Species Act of 1973 prohibits any person from harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing or collecting any listed threatened or endangered species. Authorization to "take" (as described in the previous sentence) a listed threatened or endangered species must be granted under an ESA Section 10(a)(1)(B) permit or similar authorization. When conducting research, authorized personnel must carry all relevant permits and authorization letters and follow all terms and conditions, including reporting requirements, as outlined in the permit(s). The activities described here are conducted currently under the authority of NMFS Permit No. 1552 (Observer Programs), 1570 (Gear Research) and 1571 (Resource Assessment Cruises), and biopsy samples or salvaged parts/carcasses are imported from the high seas under the authority of USFWS CITES 08US045532/9. Additional tasks covered under the authority of NMFS Permit No. 1551 (Directed Research), such as attaching satellite tags, oxytetracycline marking, detailed data collection or blood collection, may be requested in the future, and training will be provided. The SEFSC is creating a website where these permits, letters of designation, and permit reports can be accessed at: http://www.sefsc.noaa.gov/seaturtlepermits.jsp.

There are two supplementary documents frequently referenced here which provide valuable reference resources. The first, Sea Turtle Research Techniques Manual, NOAA Technical Memorandum NMFS-SEFSC-579, provides a comprehensive training document for NMFS researchers and fishery observers. These protocols cover species identification, handling, resuscitation, oral cavity anatomy, morphometrics, marking, electronic tags, and biopsy samples which must be followed to ensure compliance with authorized permitted procedures. The second, Careful Release Protocols for Sea Turtle Release with Minimal Injury, NOAA Technical Memorandum NMFS-SEFSC-580, describes the equipment and techniques for removing fishing gear from incidentally captured turtles. Both of these documents may be accessed at: http://www.sefsc.noaa.gov/seaturtlefisheriesobservers.jsp.

GENERAL INSTRUCTIONS

Complete a Sea Turtle Life History Form for every turtle brought aboard or released along side of the vessel. If you are unable to positively identify the species, try to take photographs and record it on the data sheet as "unknown". Also, try to photograph all hooked or entangled sea turtles that are not brought aboard due to their large size or due to safety considerations. Record tag data if tags are present. Also, you may be requested to take biological samples.

While turtles should be worked up and returned to the water as soon as possible (unless resuscitated), in order to continue your other observer duties, you may need to put the turtle safely aside and work it up later. If the animal has gear attached, the gear should be removed immediately, as the severity of the interaction can increase with prolonged exposure to the gear. Handle turtles in accordance with Chapter 2 of the Sea Turtle Research Techniques Manual.

We have tried to minimize the amount of writing required. If given a choice, circle the answer to a question or check the appropriate box. Some boxes require a written response.

CAPTURE INFORMATION

Trip Number: Record the unique number assigned by the Observer Program Coordinator or project's Principal Investigator.

Year, Month, Day: Record the year, month, and day of the recovery of the animal.

Set / Haul / Tow: Record the set, haul, or tow number of the trip.

Specimen Number: Record a three digit consecutive number. Your turtle specimen numbers on this trip begin with 001 and continue sequentially. Turtle specimen numbers are kept separate from all other specimen numbers for other species groups.

Gear Type: Indicate which gear is being fished. If the gear type is Gill Net or Trawl, please write in the specific type and note the soak or tow time. If gear is something other then the listed types, write in gear type.

Gear Depth: Indicate whether the gear was being fished at the surface, midwater, or on the bottom. If gear depth is something other then the listed depths, select other (describe).

Time: Record the time of day (24 hr clock) when the turtle was brought alongside the vessel. If your project uses a different time system than local 24 hr military time, such as GMT or military time in hundredths of an hour, please note this beside the time so that it can be converted.

Water Temperature: Record the water temperature at the location where the turtle was brought alongside the vessel.

Latitude: Record the degrees and minutes of latitude at the time of the actual recovery of the animal. Circle N or S for north or south of the equator.

Longitude: Record the degrees and minutes of longitude at the time of the actual recovery of the animal. Circle E or W for east or west of the prime meridian.

Did turtle slide out/escape from gear? Circle Y for Yes or N for No. If the turtle had to be cut loose from the gear, then the correct answer is No.

Was turtle brought on board? Circle Y for Yes or N for No.

<u>Identification</u> (see Chapter 1 of the Sea Turtle Research Techniques Manual)

Species: Check the appropriate box which corresponds to the species of the captured turtle. With experience, sea turtles seen close up generally become easier to identify. See back of data sheet for identification criteria and Chapter 1 for more information.

Number of Photos Taken? Photograph every turtle, and record the number of photos taken. There are two purposes of the photographs (1) confirm species identification and (2) document the gear interaction. These pictures will assist in understanding how the turtle interacted with the gear, better categorize the interaction for post hooking mortality assessments, and provide information for reducing the interactions in the future, as well as provide confirmation of species identification. For those easily identified it is sufficient to take just one picture; for those with questionable identification, at least 3 pictures must be taken: dorsal, ventral, and frontal views, in addition to the gear photo. Try to photograph the top of the head of leatherbacks to record the "pink spot" and white markings for photo-id. For the first picture of every turtle on board, include the dive slate in the picture. Collection information should be written on the slate to identify the turtle: trip #, specimen #. We recommend that you also include the vessel name as part of the information. Be mindful of the minimum distance required to take clear pictures (depth of field). Most disposable cameras need a distance of at least 4 ft from your subject, otherwise the picture will be out of focus.

Condition of Turtle at Capture

Check the appropriate box that best corresponds to the condition of the turtle when it was recovered. In the notes section, record specific notes about any injury to the turtle.

You will indicate the turtle's injury status, whether the turtle was **Injured**, **Uninjured**, or **Unknown** as described below:

> **Injured:** The turtle is injured (e.g., hook captures). All hooked turtles are injured. Describe in detail how the turtle is hooked on the back of the form. Any lesion constitutes an injury.
>
> **Uninjured:** The turtle apparently is not injured (e.g., net captures or entangled in line) and there are no lesions.
>
> **Unknown:** The observer cannot determine if the turtle was injured. This may happen when an animal isn't boated and the observer did not get a good view of the animal.

Next, you will indicate the turtle's condition at capture by selecting one of the following:

Previously Dead "Dead before interaction": The turtle was already dead when it was captured. The turtle died prior to and not as a result of the observed fishing interaction.

> Note: A **previously dead** turtle will usually have rotting tissue around the eyes and vents, and it may be bloated and foul smelling. It also may have sloughing scutes and scales. However, it may not smell, but will have rigor mortis.

Fresh dead/comatose/unresponsive: At times it is difficult to make the distinction whether a turtle is dead, comatose or unresponsive, particularly due to field conditions and lack of specialized monitoring equipment. When encountering a turtle that appears unresponsive, test the response to stimuli and detail findings on the diagram near the comments section on the form. See Condition Evaluation for Turtles Not Coded "Alive" on page 12 and fill in the blanks (using a check mark for positive response, 0 for no response) on the turtle diagram on the back side of data sheet. This category includes the following scenarios:

> Fresh Dead "Dead because of interaction"**:** The turtle likely died as a result of the current (observed) fishing operation. The carcass may show signs it had been alive during the interaction (e.g., multiple wrap entanglement in line or netting, or internal hooking). The carcass may or may not have rigor mortis and may begin to smell.
>
> Comatose/Unresponsive: The turtle was brought aboard comatose/unresponsive. Circle Y for Yes or N for No to indicate whether the vessel crew attempted resuscitation. See resuscitation instructions in Chapter 3 of the Sea Turtle Research Techniques Manual.

**Note in the comments section the time it took for the turtle to respond and how long the turtle was kept on deck before release. If resuscitation was not attempted, please describe the circumstances in the comments section.

Alive: The turtle is alive and may be injured, uninjured or unknown as previously described.

Unknown (describe): The turtle was not observed and the condition is unknown. Explain on back of form.

Other (describe)**:** The condition does not fit any category described above. Explain on back of form.

If gear is a form of hook and line, complete this section, as applicable:

Hook Type: Check "J" or Circle. If hook type is neither, select Other (describe).

Hook Size: Write in size of hook, (e.g., 9/0, 18/0).

Manufacturer/Style No. Write in the manufacturer and style number (e.g., Mustad #39968D).

Degree Offset: Write in the degree offset of hook (e.g., 0 , 5 , 10).

Bait: Circle or check Squid, Mackerel, Sardine, Unknown or Other (describe).

Size: Write in the bait size. *If two baits involved, include both sizes. See examples below.* Using values recorded on the haul log for each bait kind, first calculate an individual bait weight (box weight/bait number) and round to nearest hundredth of a pound. Then, convert to grams (1 lb = 450 grams) multiplying by 450.

-Squid:200lbs/400 baits = 0.50 lbs each 0.50 X 450 = 225 grams, record as 225 grams
-Mackerel:300 lbs/ 400 baits = 0.75 lbs each 0.75 X 450 = 337.5 grams, record as 338 grams
-Sardines: 60 lbs/400 baits = 0.15 lbs each 0.15 X 450 = 67.5 grams, record as 68 grams

Caught on hook timer? Circle Y for Yes or N for No. If Yes, fill in time elapsed in space provided.

Was there a light stick on the hook? Circle Y for Yes, N for No, U for Unknown or Not Applicable. If Yes, circle the color of light stick or write it in if not listed.

Lightstick Type (circle): Chemical or LED. Circle Chemical for glowsticks or circle LED for a light-emitting-diode requiring an electric current or battery.
Gangions to next light stick: If answer above was no, record the number of gangions to the **next** light stick (not necessarily nearest) and circle the appropriate color.

Number of gangions to next float: Record number of gangions to the **next** float (not necessarily nearest).

Hook location (See Appendix)

If the turtle has been hooked, circle the specific location if it can be determined. If specific location cannot be determined, note the general location of the hook by checking the appropriate code box. Describe hook and its location in the notes section. Note if there is more than one hook involved. All hooks, except those deep in the esophagus or stomach, should be removed. Only swallowed hooks should not be removed, but any visible portion of them should be cut off and removed. (See Careful Release Protocols for Sea Turtle Release with Minimal Injury, Boated Animals section, available at http://www.sefsc.noaa.gov/PDFdocs/TM_580_NMFS_SEFSC.pdf for specific hook removing guidelines.) Indicate if the animal is **Not Hooked**, **Not Known if Hooked**, or **Hooked, but location totally Unknown** and record details in the comments section. Otherwise follow the directions below for **Internal** or **External** hooks.

Internal Hook Location (check general location and circle the specific location, if known).

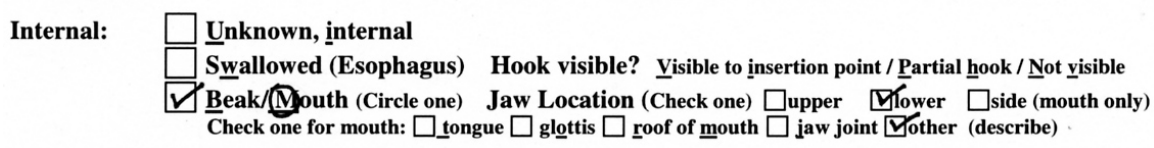
Unknown, internal: The animal has been hooked internally, but the location cannot be determined. This may be the case when an animal cannot be boated.

Swallowed (esophagus): The turtle has "swallowed" the hook. The barb of the hook is lodged in the esophagus (or lower), as indicated by the presence of papillae. Part of the eye or shank may be visible in the open mouth and any visible portion of the hook should be removed. If the insertion point is visible, the entire hook should be removed. See description of the oral cavity in Chapter 4 of the Sea Turtle Research Techniques Manual.

> **Swallowed Hook Visible?:** Please circle the furthest extent the hook is visible. Circle visible to insertion point, partially visible, or the hook is not visible.

Beak/Mouth: The turtle is hooked in the beak internally or the mouth. Circle whether hook is in the **beak** or the **mouth**. Hook usually is easily visible, except those lodged in the back of the mouth. Describe hook and location in the notes section. Most hooks should be removed. See description of oral cavity in Chapter 4 of the Sea Turtle Research Techniques Manual and Careful Release Protocols if unsure.

> **Jaw location**: Note also the location of the hook in the jaw: **upper**, **lower**, or **side** (mouth only) by checking the appropriate box. Check specific location as it applies if hooked in mouth (**tongue**, **glottis**, **roof of mouth**, or **jaw joint**). If specific location listed does not apply then check **other**. Example: If the turtle was hooked in the lower jaw but was not hooked in the tongue or glottis, check the **beak/mouth** box, circle **mouth**, check **lower** jaw and check **other**. It was hooked somewhere other then the tongue or glottis in the lower jaw. Be as specific as possible, use notes section if necessary.



External Hook Location (check general location and circle the specific location, if known).

Unknown, external: The animal has been hooked externally, but the location cannot be determined. This may be the case when an animal cannot be boated.

Beak/Head/Neck: The turtle is hooked in the neck or head, including the external beak area. Describe location in notes section. All hooks should be removed.

Carapace/Plastron: The turtle is hooked in its carapace or plastron. Describe location in the notes section. All hooks should be removed.

Front Flipper/Shoulder/Armpit: The turtle is hooked in its front limbs, armpits (trailing edge or ventral), or shoulders (leading edge). Describe which side (right or left) is involved in the notes section. All hooks should be removed.

Rear Flipper/Groin/Tail: The turtle is hooked in its rear limbs, groin, or tail. Describe which side (right or left) is involved in the notes section. All hooks should be removed.

Was hook removed from this animal?: Circle Y for Yes, N for No, Unknown, or Not Applicable. If animal is 'Not Hooked' then choose Not Applicable. If animal is 'Not Known If Hooked', determine whether the hook was retrieved and answer Yes, No, or Unknown accordingly (even though it is not positive that the hook penetrated the animal).

All gear types complete this section, as applicable.

Was animal entangled in gear at capture? Circle Y for Yes, N for No, or Unknown.

At release? Circle Y for Yes, N for No, and U for Unknown.

How much gear (linear feet) was left on turtle when released? Estimate or measure the amount of gear line left on turtle when released. For hook and line fisheries, this is the measurement of line from the eye of the hook, including crimp, left on the turtle. For lengths less than one foot, record the decimal fraction remaining. Record a zero if all line is removed. Attempts should be made to remove all gear, even on those animals in the water; long handled dehookers and line cutters should be used, if available.

BIOLOGICAL INFORMATION

Dimensions (see Chapter 5 of the Sea Turtle Research Techniques Manual)

If the turtle cannot be brought on board, you will have to estimate its carapace length in feet.

Estimated Carapace Length (ft): Estimate length of turtle if not brought on board vessel. Note that in the past this has been an estimate in centimeters, but now the unit of measurement is feet.

If you bring the turtle on board, take the carapace measurements in centimeters, to the nearest 0.1 cm, using a tape measure (curved) and using calipers (straight). Standard measurements are illustrated below. Measurements over-the-curve (curved) follow the curvature of the carapace. If barnacles, injury, or abnormality affect these measurements, record the details on the back of the form. Nearly all leatherbacks encountered will be too large for the calipers to accommodate but if straight measurements are possible please taken them. Note: there is no straight notch to notch measurement due to the leatherbacks morphology.

For detailed description and landmarks of the following measurements reference Chapter 5 of the Sea Turtle Research Techniques Manual.

Carapace Length, curved, notch-to-tip (standard): Record the distance between the center of the nuchal scute and the end of the longest postcentral scute, following the curvature of the dorsal center line. See diagram. On leatherbacks the measurement is taken alongside (not over the top) of the vertebral (center) ridge.

Carapace Length, straight, notch-to-tip (standard): Record the distance between the center of the nuchal scute and the end of the longest postcentral scute.

Carapace Length, straight, notch-to-notch (minimal): Record the distance between the center of the nuchal scute and the notch between the two postcentral scutes.

Carapace Width, curved: Record the maximum distance between the lateral edges of the carapace, measured over the curvature of the shell, perpendicular to the centerline of the carapace, at the widest point. See diagram. On leatherbacks the width is measured from side ridge to side ridge at the widest point.

Carapace Width, straight: Record the maximum distance between the lateral edges of the carapace.

Tags

Look for existing tags. Metal or plastic tags may be found on any of the four flippers. Living tags, created by surgically removing a small piece of the plastron and implanting it in the carapace, may appear in any of the lateral scutes, mainly on Kemp's ridley turtles. In addition,

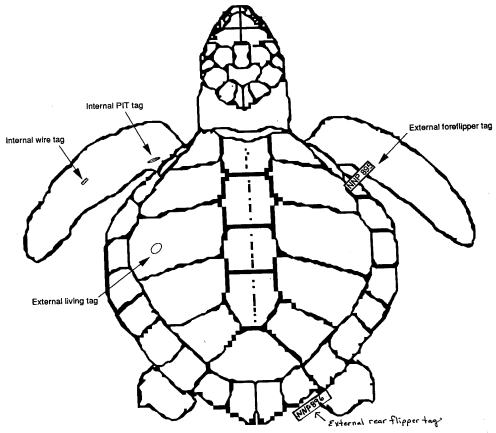
there may be two types of internal tags (wire and PIT) placed in the shoulders or flippers. We will not be concerned with wire tags here due to additional equipment requirements. If no rear metal flipper tags are present, you will apply inconel tags to both rear flippers. If no PIT tag is present, you will apply one (location varies by species). Generally, all turtles over 30 cm straight carapace length (SCL) should be flipper and PIT tagged if not already carrying tags. Turtles less than 20 cm SCL only get a PIT tag. If the turtle measures between 20-30 cm SCL, then it is up to the observer to use their best judgment to determine if flipper tagging is appropriate. See the detailed tag application instructions in Chapter 6 of the Sea Turtle Research Techniques Manual.

Flipper Tag Number: Record the number of the tag already present or which is being applied. If the tag is already present record the return address of the tag in the comments section. If no tags are on the turtle and none are being applied, leave blank.

Tag Type: Metal [1] or Plastic [2]: Identify the type of tag appearing on or to be applied to the turtle. If no tags are on the turtle and none are being applied, leave blank.

Position: The tag may be on any of the four flippers. Observers should apply two tags, one to each rear flipper, if none already are present at that location. Record the location of the tag. If no tags are on the turtle and none are being applied, leave blank.

Left Front Flipper [LF]
Right Front Flipper [RF]
Left Rear Flipper [LR]
Right Rear Flipper [RR]



Already Present [1] or Applied by Observer [2]: Indicate whether the tag was already present or whether it is being applied by the observer. If no tags are on the turtle and none are being applied, leave blank.

Were Tags Removed?: Did you remove the tag? Circle Y for Yes or N for No. Any tags that were present prior to bringing the turtle on board that are getting hard to read or about to fall off should be removed and, if taken from the rear flippers, replaced with new ones. The old tags should be collected and given to the Port Coordinator upon your return. If the existing tags are in good condition, then leave them in place. If no tags are on the turtle, leave blank.

PIT Tag: Scan the 4 flippers and the shoulder and arm pit area with the PIT tag scanner. If a tag is found, record the hexadecimal code (generally 10 characters, rarely 9 or 15 characters; Rarely you could encounter an AVID encrypted tag with a 16 character alphanumeric code). If there is no PIT tag present in either of the front flippers, inject a PIT tag, record the PIT tag number and also attach the PIT tag sticker to the data sheet. See detailed instructions for PIT tag application and preferred placement location by species in Chapter 6 of the Sea Turtle Research Techniques Manual. Record the position of any existing PIT tag or the position to which one is applied (example: LF, RR) and note whether the tag was already present or applied at this capture. If no PIT tags are on the turtle and none are applied, leave blank.

Scanned? Note whether you scanned the flipper, shoulder, and armpit areas with a PIT tag scanner prior to and after application. Circle Y for Yes or N for No.

Living Tag: Indicate whether any living tags were present. Record details, including position, in comments section. Photograph the mark.

Other Tags: Indicate whether any other types of tags, such as satellite tags, were present or were attached. Record the tag number here if it has one. Record details, including position, in comments section. Photograph the tag.

Biopsy Samples

Biopsy Samples Taken? Biopsy samples for genetic analysis should be taken from all turtles (see Chapter 8 in the Sea Turtle Research Techniques Manual). Were samples taken? Circle Y for Yes, N for No or Unsuccessful for an unsuccessful attempt. List all samples taken in the comments section**. If you are importing biopsy samples from the high seas (outside of US EEZ), you must have a copy of the CITES permit and complete a USFWS 3-177 form listing all samples imported for that trip.**

Release Information

Record the location (latitude and longitude) where the animal was released, as well as the time and water temperature at that location. If the entire animal was returned to shore (salvaged or taken to holding facility) then leave blank.

Latitude: Record the degrees and minutes of latitude at the time of the actual release of the animal. Circle N or S for north or south of the equator.

Longitude: Record the degrees and minutes of longitude at the time of the actual release of the animal. Circle E or W for east or west of the prime meridian.

Time: Record the time of day (24 hr clock) when the turtle was released.

Water Temperature: Record the water temperature at the location where the turtle was released.

Date: Record the year, month, and day the turtle was released if different from capture date.

Final Disposition

Record the final disposition (fate) of the turtle by checking the appropriate box:

Discarded Dead/Unresponsive Carcass: In some cases, a turtle may have shown signs of life while onboard, but if it is dead or unresponsive at release, it belongs in this category.

Marked? All carcasses returned to sea should be spray painted or otherwise marked. Circle Y for Yes or N for No

Salvaged Carcass/Parts (other than biopsy, explain) Indicate whether the carcass or parts of the carcass were salvaged and make notes in the comments section about where it was taken. Indicate in the comments what part/s or sample/s were salvaged if applicable. **A current CITES permit is required to return with animals or parts taken on the high seas.**

Released Alive

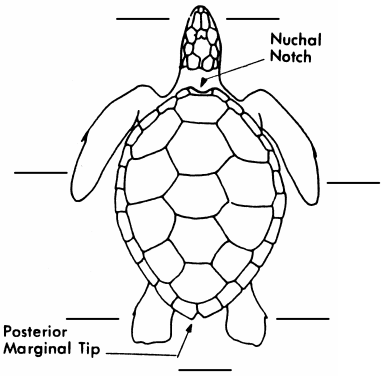
Taken to Holding Facility

Unknown (explain)

Additional Comments

Use this area to record any comments. Annotate the drawing to indicate any anomalies, location of living tags, etc. Also, be sure to list all biological samples collected. If resuscitation was attempted on any animal, please record all details in this section (such as length of time resuscitation was attempted, method(s) used, etc.).

Condition Evaluation for Turtles Not Coded "Alive": Mark each line on the diagram with a check mark to indicate positive reflex/responsiveness on turtles fitting the fresh dead/comatose/unresponsive condition. Where there is no response mark the line with an O. Mark all 7 lines.



To check for a response, stimulate each of the general areas marked with lines on the diagram. Lightly touch the skin around each eye, give a firm pinch to each of the limbs and tail area. If there is a positive response, note whether or not it was limited to the stimulated area or if it evoked a larger response.

Rigor Mortis? Circle Y for Yes, N for No, and U for Unknown.

Rotting Flesh? Circle Y for Yes, N for No, and U for Unknown.

Foul Smell? Circle Y for Yes, N for No, and U for Unknown.

Identification Criteria (See Chapter 1 of the Sea Turtle Research Techniques Manual)

Number of Left Lateral Scutes: Count and record the number of lateral (costal) scutes on the left side of the carapace.

Number of Right Lateral Scutes: Count and record the number of lateral (costal) scutes on the right side of the carapace.

Number Vertebral Scutes: Count and record the number of scutes on the midline of the carapace.

Number Left Inframarginal Scutes: Count and record the number of scutes on the turtle's left side of the plastron.

Number Right Inframarginal Scutes: Count and record the number of scutes on the turtle's right side of the plastron.

Overlapping Scutes: Are there overlapping scutes on the dorsal surface? Circle Y for Yes, N for No, or U for Unknown.

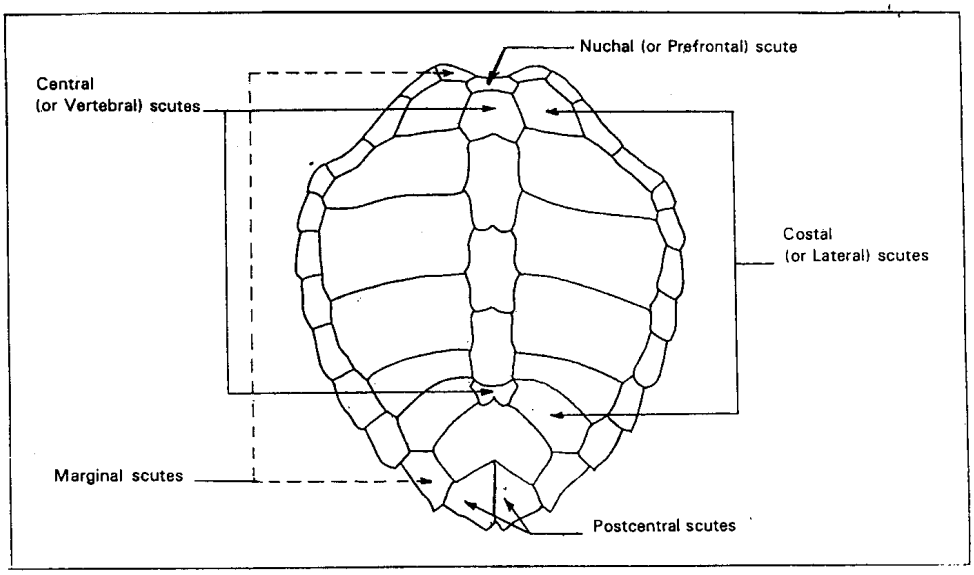
Inframarginal Pores: Are there pores on the ventral inframarginal scutes? Circle Y for Yes, N for No, or U for Unknown.

1 Pair Prefrontal Scales: Does the turtle have one pair of prefrontal scales? Circle Y for Yes, N for No, or U for Unknown.

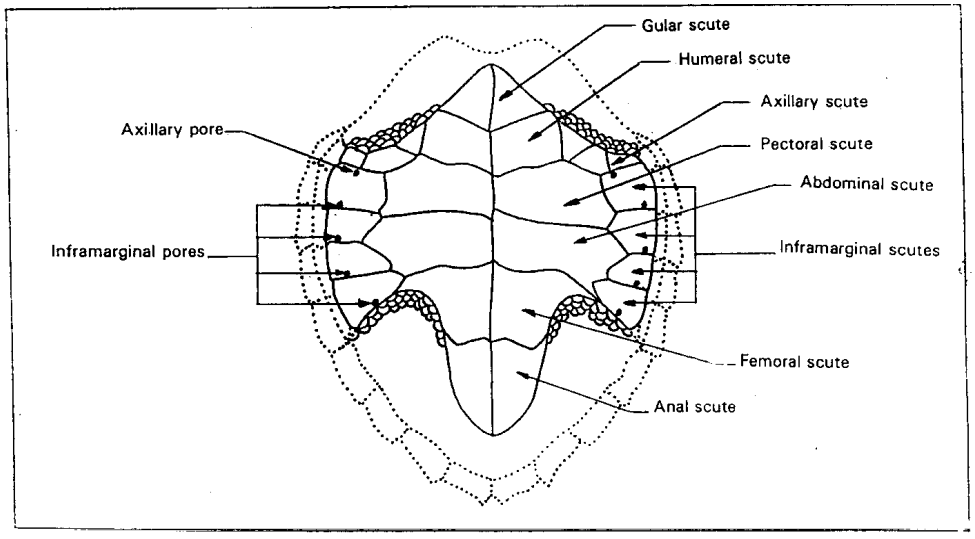
Lacks Bony Shell: Does the turtle lack a bony shell? Circle Y for Yes or N for No.

Nuchal scute: Does the first nuchal scute touch the first lateral scute? Circle Y for Yes, N for No, or U for Unknown.

Dorsal Coloration: What is the dorsal coloration of the turtle? Check the most appropriate box or describe under other.



Carapace of an olive ridley turtle (Lepidochelys olivacea)
(Surinam specimen, scaled drawing by S. Handigman)



Plastron of an olive ridley turtle (Lepidochelys olivacea)
(Surinam specimen, scaled drawing by S. Handigman)

VESSEL CAPTAIN, CREW AND OBSERVER RESPONSIBILITIES

Vessel Captain and Crew Responsibilities

The vessel captain and crew's responsibilities are outlined in the Careful Release Protocols for Sea Turtle Release with Minimal Injury. The animal's safety, gear removal, and decisions whether a turtle is to be boated or resuscitated are the responsibility of the vessel's captain and crew.

Observer & Vessel Captain and Crew Responsibilities

All parties should minimize any possible injury to the animal while on deck, either by the animal bumping into objects on board or by objects falling on the animal due to the boat movement. In addition, all parties are responsible for storing the turtle in the shade, keeping the animal moist and maintaining an acceptable body temperature. Moisture can be preserved by either covering the animal's body with a wet towel or by applying petroleum jelly on its skin and carapace. The animal's body temperature should not fall below 60^{o} F and should be maintained around the water temperature of the capture location and similar to the water temperature of the release site.

Observer Responsibilities

The observer is to observe normal fishing operations and complete a Sea Turtle Life History Form for every sea turtle interacting with fishing gear. The observer is responsible for collecting and recording the biological data on the sea turtles (measuring, tagging, biopsying, etc). Crew assistance may be requested to complete these tasks. The animals' behaviors and swimming and diving abilities should be monitored after the release and noted on the form. The observer may educate the crew on known ways to dehook, disentangle, or use mouth openers and gags on an animal but are not to actually participate. On certain trips during experiments, the observer is also responsible for sending daily e-mails to the turtle coordinator relaying data on effort and protected species interactions. The observer will be made aware of such responsibilities if required.

SPECIMEN COLLECTION REQUIREMENTS

If possible, **retain** dead sea turtles after processing for return to port. Consider the size of the sea turtle, and whether freezer space is available. Consider, also, species and size and sampling priorities. These priorities will be given to you by the observer/fishery coordinator. If animals were taken on the high seas, you must have a CITES permit and a completed USFWS 3-177 form to import the animal back to the United States.

If a sea turtle comes aboard dead and will be brought back to port:

- Leave all existing tags in place.
- Take three photographs; dorsal, ventral, and frontal views, in addition to gear interaction photograph.
- Complete Sea Turtle Life History Form.

Double bag and chill or freeze all retained. Each sample is to be individually tagged and labeled. The label is to be completed using only a "test scoring" pencil (#2). The label is to have the following information: trip number, specimen number, species, and sample identification (e.g., humerus). If many samples are collected from the same animal and placed into a common plastic bag, ensure that each part is properly tagged and labeled. Label the plastic bag with a large tag clearly stating its contents.

If you are importing a carcass from the high seas, notify the observer coordinator that you are returning to port when the date of docking is known, and no less than 48 hours.

MATERIALS FOR COLLECTING GENETIC TISSUE SAMPLES AND LABELING INSTRUCTIONS

* scotch tape to protect writing on the vials
* pencil to write on label
* waterproof label, 1/4" x 4"
* permanent marker to label the vials
* screw-cap vial of saturated NaCl, wrapped in Parafilm®
* piece of Parafilm® to wrap the cap of the vial after sample is taken
* latex gloves
* plastic board, ~6" x 4"
* Betadine swabs
* alcohol swabs
* 4 - 6 mm biopsy punch - sterile, disposable, for boated turtles
* vial with sterile stainless corer for turtles not boated
* Whirl-pak® to return / store sample vial

We have included two types of biopsy kits in each sampling case: one for turtles not boated and one for turtles boated. The one for turtles not boated can be distinguished by the presence of two types of vials: one for the storage of the dry, sterile corer and one that contains a preservative into which the corer is placed once a sample is taken. The kits for turtles that are boated contain but one type of vial and also contain sterile individual wrapped biopsy punches.

Use the pencil to write the trip number, specimen number, species id, and carapace length (SCL_{n-t}) on the waterproof paper label and place it in the vial. Label the outside of the vial using the permanent marker with trip number, specimen number, species id, and carapace length (SCL_{n-t}). Apply a piece of clear scotch tape over what you have written on the vial to protect the writing from being erased or smeared by an accidental spill of ethanol. Wrap Parafilm® around the cap of the vial by stretching it as you wrap. Place vial within Whirl-pak® and close.

Submit the vial with your datasheets. Be sure to indicate on your datasheet that a biopsy sample was taken. If you are importing biopsy samples from the high seas, you must have a copy of the CITES permit and complete a USFWS 3-177 form, listing all samples imported for that trip.

Instructions for filling out USFWS Form 3-177 (Declaration of Importation or Exportation of Fish or Wildlife)

If you are importing a biopsy sample from a live or dead turtle, a carcass or samples/parts from a carcass from the high seas (outside the US EEZ within 300 miles of the coast), you must fill out a USFWS Form 3-177 and return it with your biopsy sample vials. If you are unsure whether your samples were collected on the high seas, fill out a form and submit it, and we will make the determination. One form will suffice for each trip, summarizing the number of samples collected by species. Observers will need to fill in the following blocks:

1. Insert date of import (when the samples come into port).
4. Leave blank
6. Leave blank
7. Fill in FedEx if applicable
8. Fill in the FedEx Air Way Bill if applicable
11. Number of cartons containing wildlife- probably 1
12. Leave blank unless importing a carcass, describe container.

16a. Scientific name
16b. Common name

If you are importing samples from more than one species under one trip, just list the scientific and common name on different lines, and the number of samples per species in box 19a.

18a. SPE for biopsy samples and BOD for whole carcass
19a. Fill in Quantity, number of samples per species (unit NO is already filled in)
20. Country of origin- generally “High Seas”
21. Please sign and date the form

We have tried to fill in as much as possible on the template provided. See the following example to aid in the completion of the form. Please return this form with your biopsy samples to your project coordinator or Principal Investigator. If you have any questions, please feel free to contact Lesley Stokes at (305) 361-4228 or Lesley.stokes@noaa.gov.

Example of USFWS Form 3-177 (Declaration of Importation or Exportation of Fish or Wildlife)

USFWS Form 3-177
(Revised 12/06)
O.M.B. No. 1018-0012
Expiration Date: 12/31/2009

Page ____ of ____

U.S. FISH AND WILDLIFE SERVICE
DECLARATION FOR IMPORTATION OR EXPORTATION OF FISH OR WILDLIFE

1. Date of Import/Export: (mm/dd/yyyy)

2. Import/Export License Number: N/A

3. Indicate One: ☑ Import ☐ Export

4. Port of Clearance: MI

5. Purpose Code: S

6. Customs Document Number (s)

7. Name of Carrier: Federal Express

8. Air Waybill or Bill of Lading Number:
Master:
House:

9. Transportation Code: A
N/A (License #) ____ (State or Province)

10. Bonded Location for Inspection: Not Applicable

11. Number of Cartons Containing Wildlife:

12. Markings on Cartons Containing Wildlife: NA

13a. (Indicate One) (Complete name/U.S. address/telephone number/e-mail address)
☑ U.S. Importer
☐ U.S. Exporter
Dep. Comm., NOAA, Natl. Mar. Fish. Serv.
Southeast Fisheries Science Center
75 Virginia Beach Drive
Miami, FL 33149 USA
Type Address Here

13b. Identifier Number: _____ ID Type: _____

14a. (Indicate One) (Complete name/foreign address/telephone number/e-mail address)
☐ Foreign Importer
☐ Foreign Exporter
Not Applicable
Type Address Here

14b. Country Code — —

14c. Identifier Number: _____ ID Type: _____

15a. Customs Broker, Shipping Agent or Freight Forwarder:
(Complete business name/address/telephone and fax number/e-mail address)
Not Applicable
Type Address Here

15b. Identifier Number: _____ ID Type: _____

15c. Contact Name: _____

Species Code (Official Use Only)	16a. Scientific Name / 16b. Common Name	17a. Foreign CITES Permit Number / 17b. U.S. CITES Permit Number	18a. Description Code / 18b. Source Code	19a. Quantity/Unit / 19b. Total Monetary Value	20. Country of Species Origin Code (ISO Code)	21. Venomous Live Wildlife Indicator ☑ (Check if yes)
	Caretta caretta Loggerhead sea turtle	Not Applicable 08US045532/9	SPE W	/NO $0.00	22	☐
						☐
						☐
						☐

Knowingly making a false statement in a Declaration for Importation or Exportation of Fish or Wildlife may subject the declarant to the penalty provided by 18 U.S.C. 1001 and 16 U.S.C. 3372(d)

22. I certify under penalty of perjury that the information furnished is true and correct:

Signature _____ Date _____

Type or Print Name _____

For Official Use Only
Action/Comments:

Wildlife Declared: Yes No

Wildlife Inspected:
None / Partial / Full

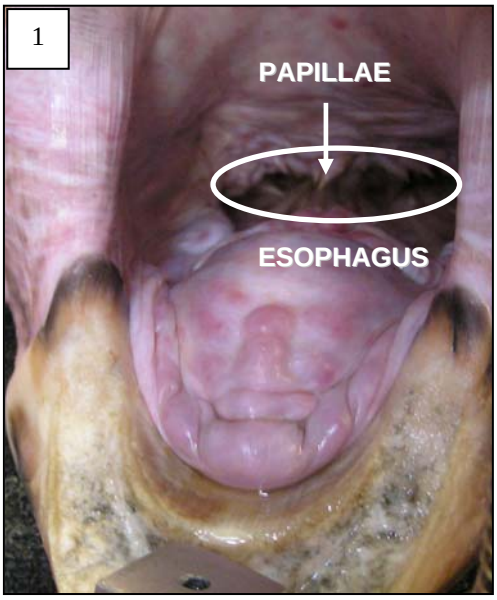
See Reverse Side of this Form for Privacy Act Notice

APPENDIX

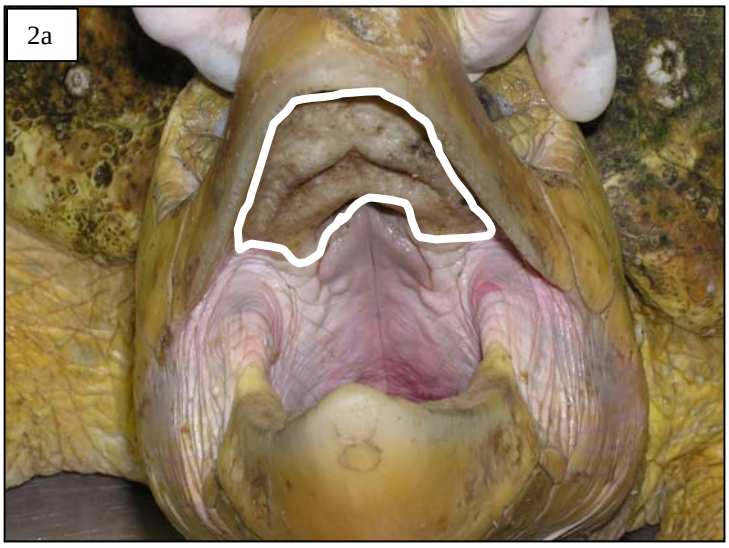
Hook Locations

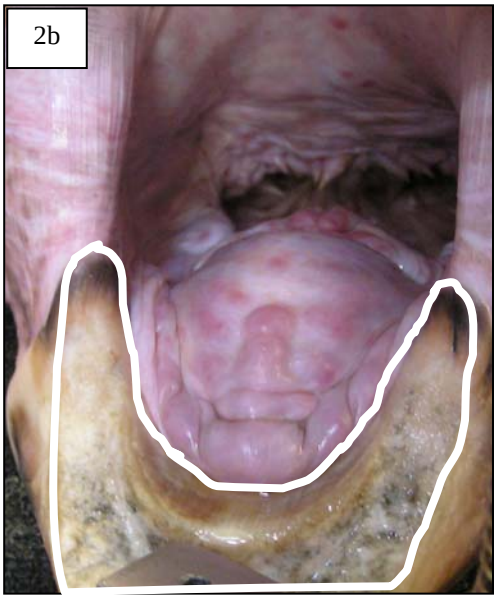
Internal:

1) Swallowed = inside the esophagus, the entrance marked by the presence of papillae. Indicate whether hook is visible to insertion point, partially visible, or not visible.



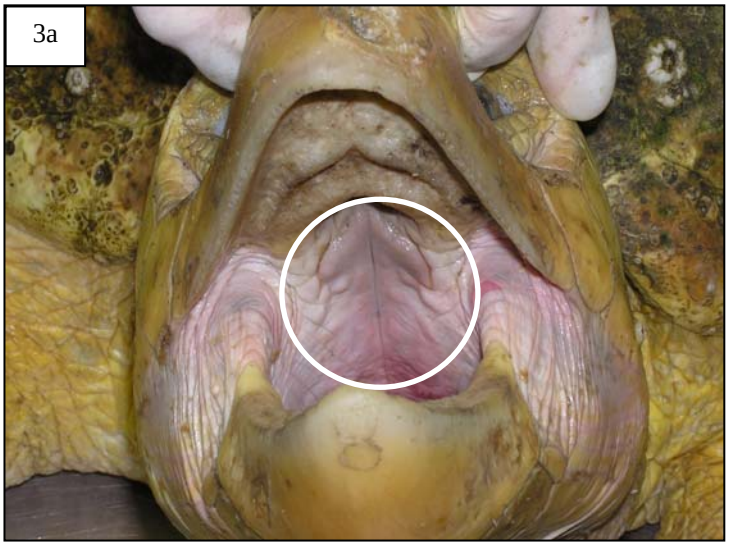
2) Internal Beak (hard keratinized rhampotheca- hardshell turtles only)
a) Upper or b) Lower

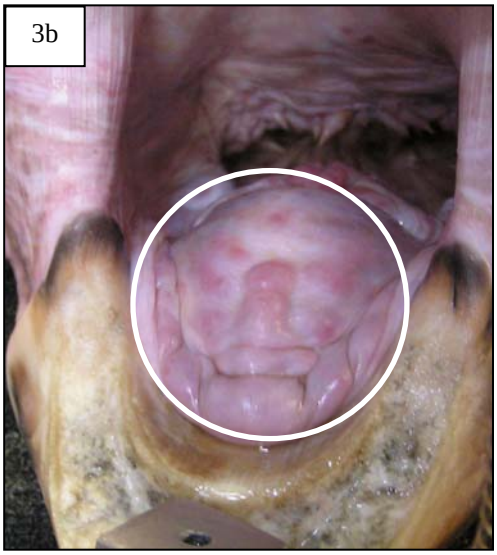


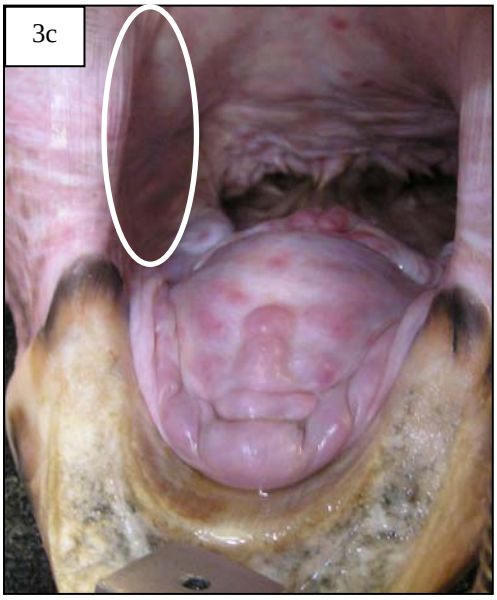


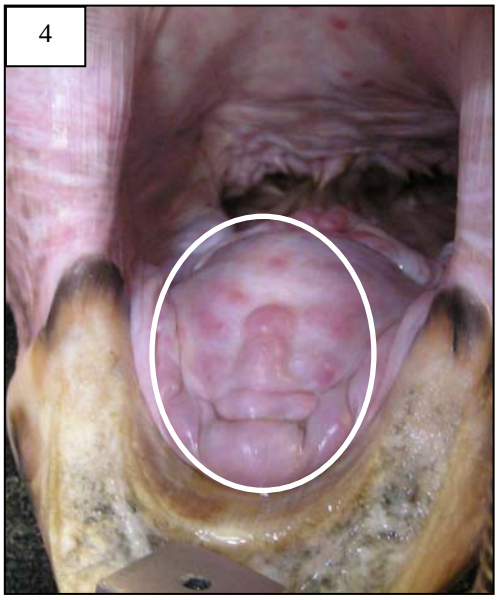
3) Mouth
a) Upper (should generally be coded as roof of mouth)
b) Lower (may be tongue, glottis, or other if under or beside the tongue)
c) Side (could be jaw joint or other)

4) Tongue

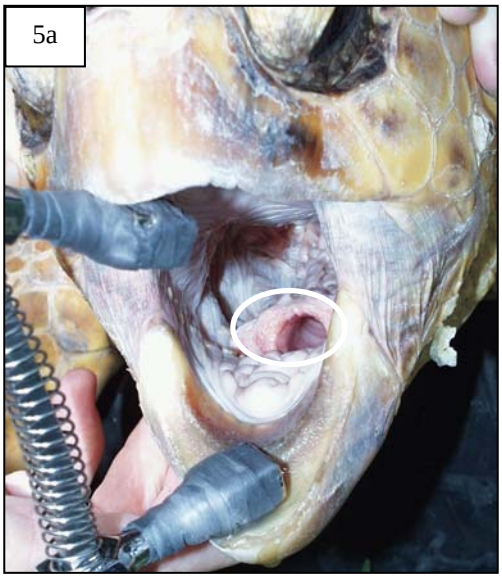


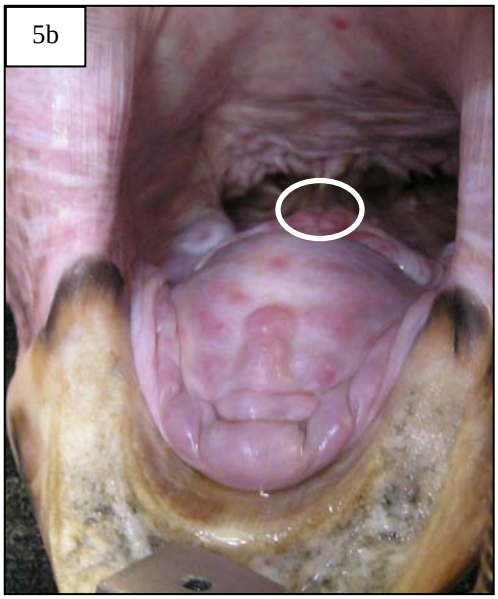






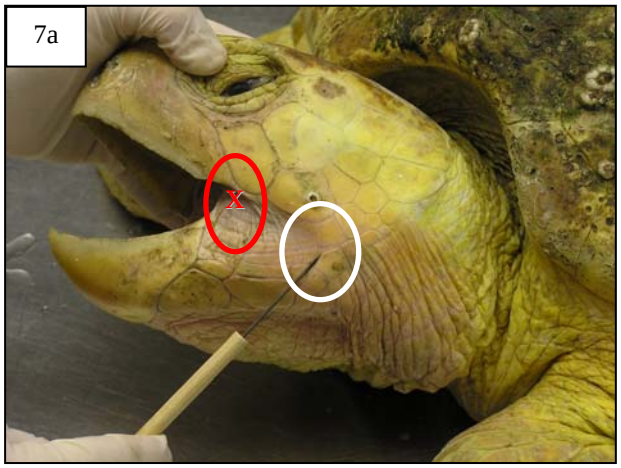
5) Glottis a) Open b) Closed

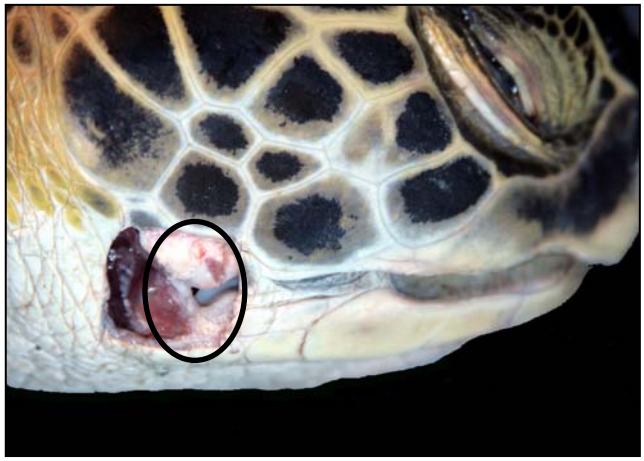


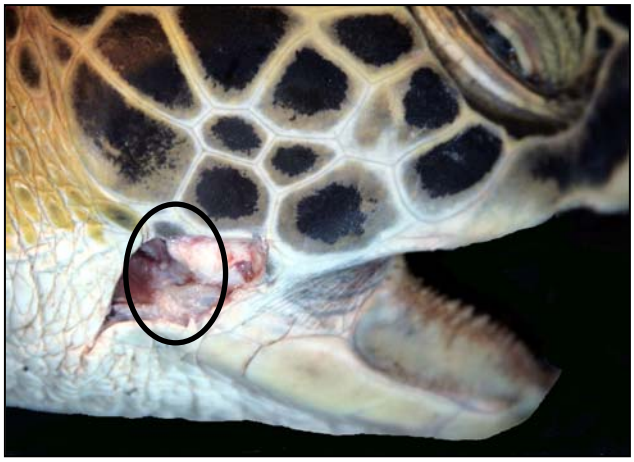


6) Roof of Mouth

7) Jaw Joint a) external, b) internal, c) dissection depicting jaw joint with jaws closed, and d) dissection with jaws open. Note: this is **not** the corner of the mouth, depicted in Figure 7a by the **red** circle (which shows the "corner of the mouth"). To understand the difference, locate your own jaw joint (just in front of the ear) and notice its position relative to the corner of your mouth (where upper and lower lips meet). Photos 7c and 7d by J. Wyneken, Florida Atlantic University.



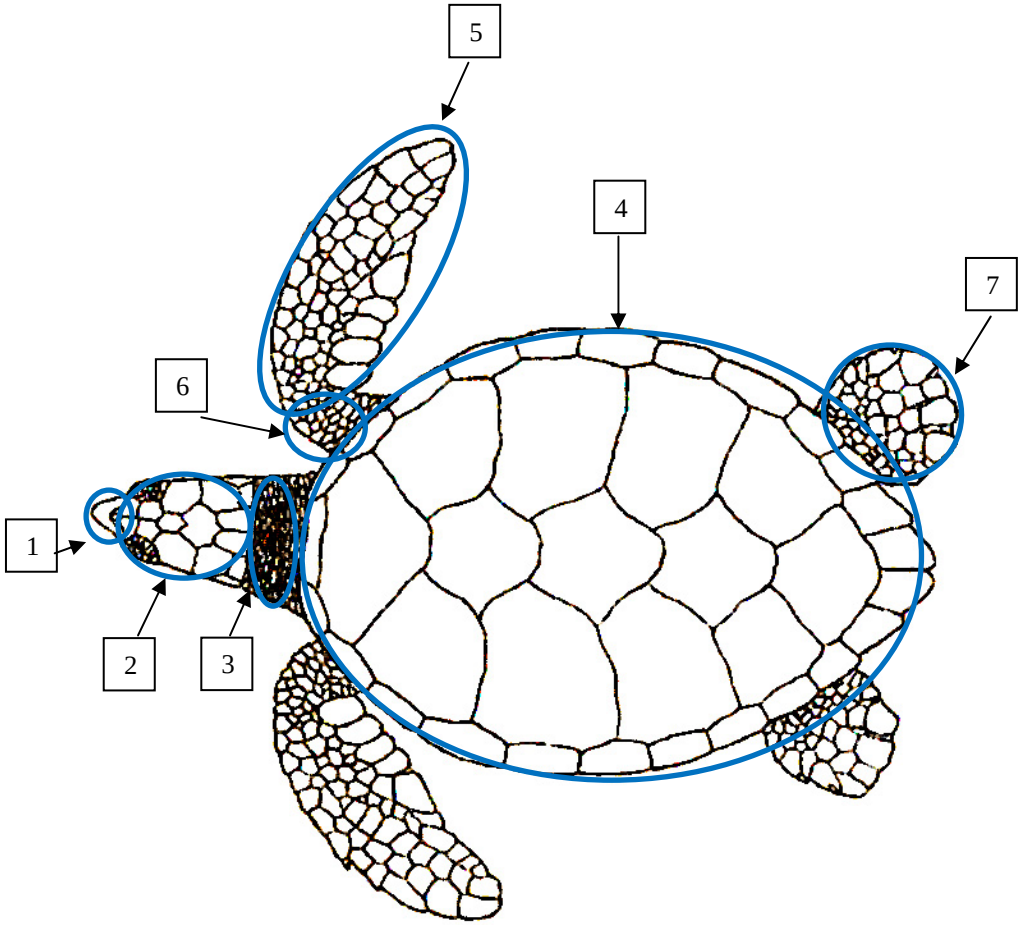




8) Other = Any area not otherwise described here. For example, "mouth, lower, other" might be below the tongue in the soft tissue. "Mouth, side, other" could be the "corner of the mouth," in the soft tissue connecting the jaws in front of the jaw joint. Describe in further detail in comments if possible.

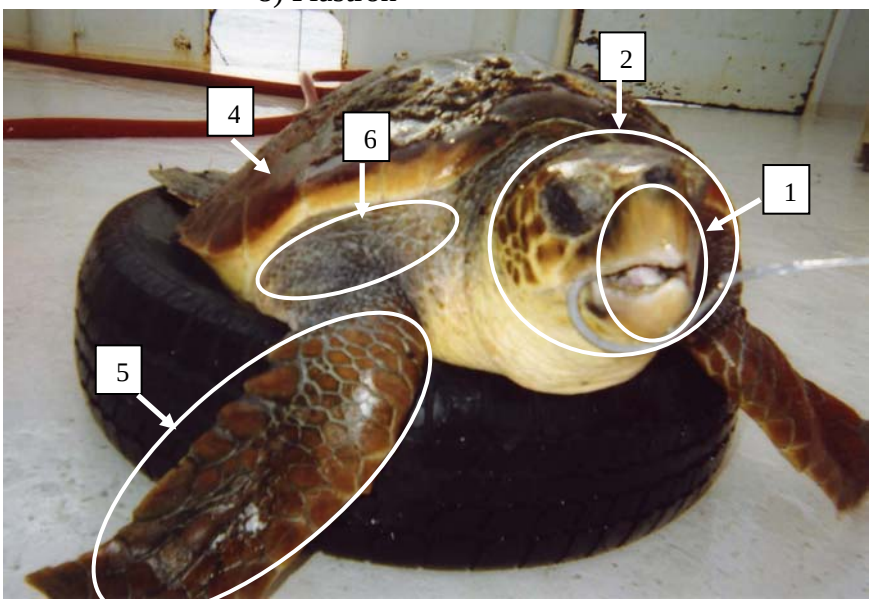
External hardshell:

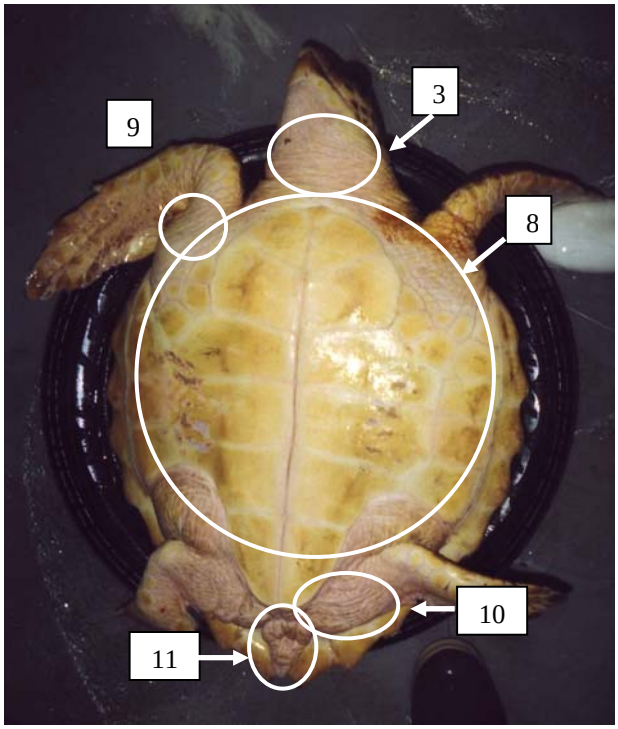
1) Beak
2) Head
3) Neck
4) Carapace
5) Front Flipper
6) Shoulder
7) Rear Flipper



External hardshell:

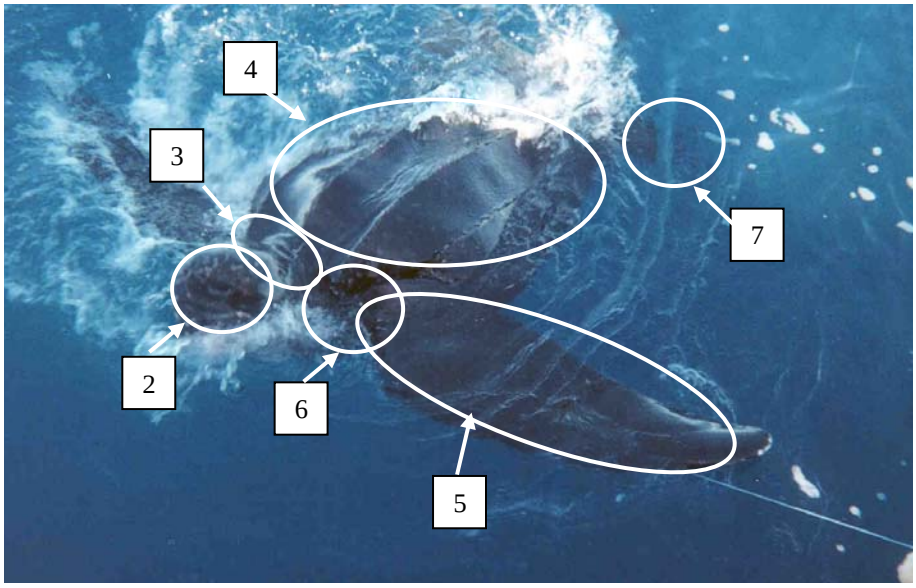
1) Beak (hard keratinized rhampotheca, either upper or lower, never side)
2) Head
3) Neck (dorsal and ventral surface)
4) Carapace
5) Front Flipper
6) Shoulder
7) Rear Flipper
8) Plastron
9) Armpit (ventral side and trailing edge of front flipper)
10) Groin
11) Tail

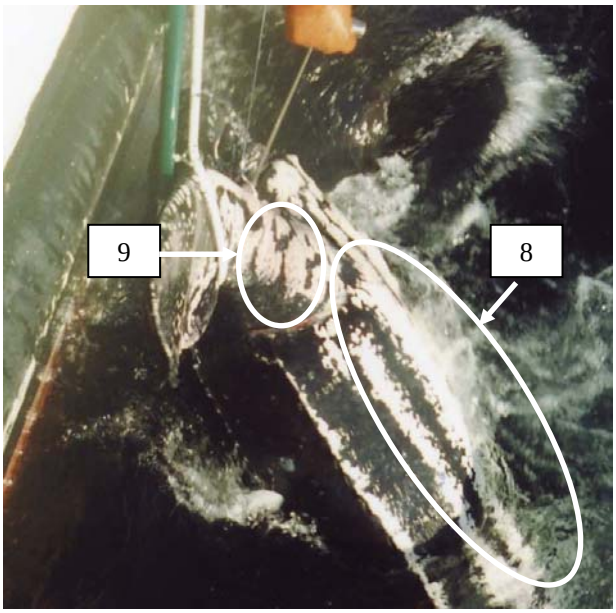




External Leatherback:

1) Beak (Leatherbacks do not have rhampotheca and should never be coded as hooked in the beak)
2) Head
3) Neck (dorsal and ventral surface)
4) Carapace
5) Front Flipper
6) Shoulder (dorsal surface and leading edge between front flipper and neck
7) Rear Flipper
8) Plastron
9) Armpit (ventral surface and trailing edge between front flipper and plastron) and trailing edge of front flipper)
10) Groin
11) Tail





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National Marine Fisheries Service Southeast Fisheries Science Center. 2008. Sea Turtle Research Techniques Manual. NOAA Technical Memorandum NMFS-SEFSC-579, 92 p.

National Marine Fisheries Service Southeast Fisheries Science Center. 2008. Careful release protocols for sea turtle release with minimal injury. NOAA Technical Memorandum NMFS-SEFSC-580, 130 pp.