

# SEA TURTLE STRANDING AND SALVAGE NETWORK — STRANDING REPORT

## OBSERVER'S NAME AND CONTACT INFORMATION:

First \_\_\_\_\_ M.I. \_\_\_\_\_ Last \_\_\_\_\_  
 Email \_\_\_\_\_  
 Affiliation \_\_\_\_\_  
 Phone number (\_\_\_\_\_) \_\_\_\_\_

## STRANDING DATE:

*Use two digits for date fields.*  
 Year 20\_\_\_\_ Month\_\_\_\_ Day\_\_\_\_  
 Turtle number by day \_\_\_\_\_ *Use three digits.*  
*State coordinators must be notified within 24 hrs; this was done by:*  
 phone  email  
 report entered online (seaturtlestranding.com)

## STRANDING LOCATION:

State \_\_\_\_\_ County \_\_\_\_\_  
 Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Location description \_\_\_\_\_  
 \_\_\_\_\_

## SPECIES:

(check one)  
 Loggerhead (CC)  Kemp's ridley (LK)  
 Green turtle (CM)  Olive ridley (LO)  
 Leatherback (DC)  Unidentified  
 Hawksbill (EI)  
*Check unidentified if not positive. Do not guess.*

## CIRCUMSTANCES OF ENCOUNTER:

(check one)  
**Traditional Stranding**  
 Found washed ashore or washing ashore  
 Found floating/struggling at water surface  
 Found underwater  
 Trapped in jetty rocks  
**Incidental Capture**  
 Caught by recreational fisherman  
 Found in the intake canal of power plant  
 Found in dredge equipment  
 Entangled in line of pot/trap buoy  
 Caught in commercial hook/line fishery  
 Caught in commercial net fishery  
 Captured during relocation efforts  
 Captured during research efforts  
 Other \_\_\_\_\_  
**Nesting Related**  
 Caught under boardwalk/dune crossover  
 Caught in moveable beach structure  
 Hit by a car  
 Wandered landward of dune (not hit by car)  
 Trapped in man-made rock formation  
 Trapped in a natural rock formation  
 Fell off of/overturned by seawall  
 Trapped by collapsed dune/scarp  
 Post-hatchling Washback  
 Cold-stunning

## PHOTOS:

(submit photos to state coordinator)  
 YES (indicate below the completeness of photo series)  NO  
 Dorsal aspect visible  Ventral aspect visible  
*A complete photo series includes photographs of the dorsal and ventral aspects of the turtle, and all injuries or anomalies.*

## CONDITION:

(check one)  
 Alive  
 Mildly decomposed  
 Moderately decomposed  
 Severely decomposed  
 Dried carcass  
 Skeletal

## EXAMINATION DETAILS:

Type of examination: (check one)  
 In-person exam by STSSN participant  
 Evaluated from photographs submitted by the public  
 Completeness of body: (check all that apply)  
 Complete  
 Missing head  
 Missing all or most (>50%) of one or more flippers  
 Missing 50% or more of the shell (body)  
 Not determined  
 Mouth checked?  YES  NO  UNKNOWN

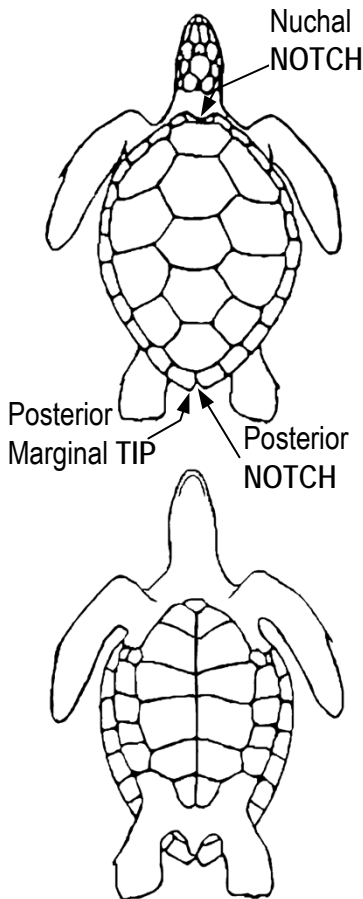
**WEIGHT:** (do not estimate weight) **Choose unit**  
 Measured weight: \_\_\_\_\_  kg  lb

## TAIL MEASUREMENT:

Did the tail extend past the carapace?  
*At least 5cm/2in (LK or LO), 10cm/4in (CC, CM, EI), or 15cm/6in (DC)* **Choose unit**  
 YES, directly measured: \_\_\_\_\_  cm  in  
 NO  NOT DETERMINED

## FATE OR FINAL DISPOSITION:

*If the stranded turtle was alive, choose one of the following:*  
 Alive:  immediately released *or*  unable to recover  
 Alive, taken to rehabilitation facility; where? \_\_\_\_\_  
 Died before reaching rehabilitation facility  
*If the turtle was found dead or died, choose one of the following:*  
 Dead and left where found; marked?  YES  NO  
*If marked, describe:* \_\_\_\_\_  
 Dead; buried, rendered, or otherwise disposed of  
 Dead and salvaged; location of salvaged remains? \_\_\_\_\_  
*Salvaged for necropsy?*  YES  NO



## TAGS:

*Contact state coordinator before disposing of a tagged turtle!*  
 Flipper tags found?  YES  NO  
*Check all 4 flippers. If found, record tag number & location.*  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 PIT tag scan performed?  YES  NO  
*Check all 4 flippers. If found, record tag id & location.*  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 Possible tag scars?  YES  NO  
 Check all locations of possible tag scars:  
 Front left  Front right  Rear left  Rear right  
 Living tag found?  YES  NO  
 If found, photograph & record scute number & side.  
 \_\_\_\_\_  
 Tracking gear found?  YES  NO If present, describe.  
*Do not dispose of turtle or remove gear; consult STSSN coordinator.*  
 \_\_\_\_\_

## CARAPACE MEASUREMENTS:

Measurements were:  Actual  Estimated  
**Using calipers** **Choose unit**  
 Straight length (notch-tip) \_\_\_\_\_  cm  in  
 Minimum length (notch-notch) \_\_\_\_\_  cm  in  
 Straight width (widest point) \_\_\_\_\_  cm  in  
**Using non-metal measuring tape** **Choose unit**  
 Curved length (notch-tip) \_\_\_\_\_  cm  in  
 Minimum length (notch-notch) \_\_\_\_\_  cm  in  
 Curved width (widest point) \_\_\_\_\_  cm  in

## ANTHROPOGENIC MATERIAL

Was there any man-made material found on the turtle (e.g., fishing gear, tar, or oil)?  YES  NO      If yes, were photos taken?  YES  NO

If man-made material was present, please answer the following questions. (check all that apply)

Were any fishing hooks present on the turtle?  YES  NO

If yes, was the gear collected?  YES  NO

Was line <0.5 cm dia. present on the turtle (fishing line)?  YES  NO

If yes, was the gear collected?  YES  NO

Was the turtle entangled in line ≥0.5 cm dia. (nautical rope)?  YES  NO

If yes, was the gear collected?  YES  NO

Was the turtle entangled in fishing net?  YES  NO

If yes, was the gear collected?  YES  NO

Was there any tar or oil present?  YES  NO

If yes, were any samples collected?  YES  NO

Was there any other man-made material present?  YES  NO

Please describe the material:

Where were the hooks located?  Mouth  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Where was the line located?  Mouth  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail  Cloaca

Where was the line located?  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Where was the net located?  Head  Neck  Carapace  Plastron  
 Front flipper  Rear flipper  Tail

Where was the tar or oil located?  Mouth  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Where was the material located?  Mouth  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

## INJURIES

Were any injuries externally evident?  YES  NO      If yes, were photos taken?  YES  NO

If injuries were evident, please answer the following questions. (check all that apply)

Were there any definitive vessel-strike injuries evident?  YES  NO

Where were these injuries located?  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Were there any blunt force injuries evident?  YES  NO

Where were these injuries located?  Head  Carapace  Plastron

Were there any shark-bite injuries evident?  YES  NO

Where were these injuries located?  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Were there any amputations of unknown cause evident?  YES  NO

How many amputations were present? \_\_\_\_\_

Where were these amputations located?  Front left flipper  
 Front right flipper  Rear left flipper  Rear right flipper

Was there an incised wound evident?  YES  NO

(e.g., clean cuts, as created by knife; typically longer than wide)

Where was the wound located?  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Was there a perforating or penetrating wound evident?  YES  NO

(a wound that is typically deeper than wide)

Where was the wound located?  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Was there a wound indicative of entanglement or ingestion of anthropogenic material without this material being present?  YES  NO

Where was the wounds located?  Head  Neck  Carapace  
 Plastron  Front flipper  Rear flipper  Tail

Was there a furrow on the edge of the beak?  YES  NO

Was there some other type of injury evident (not already described)?  YES  NO

Please describe:

## DISEASES AND LEECHES

Were any diseases or leeches externally evident?  YES  NO      If yes, were photos taken?  YES  NO

If diseases or leeches were evident, please answer the following questions. (check all that apply)

Were there any fibropapilloma-like tumors present?  YES  NO

If yes, were photos taken?  YES  NO

Were eye tumors present?  YES  NO

Were mouth tumors present?  YES  NO

Did any of the tumors have a papillary texture?  YES  NO

Were there any non-fibropapilloma-like tumors present?  YES  NO

If yes, were photos taken?  YES  NO

Please describe:

Were there any external skin lesions evident?  YES  NO      If yes, were photos taken?  YES  NO

Which of the following best describes the lesions?  Superficial crusts on the skin surface  Deep lesions exposing underlying tissue  
 Both superficial crusts and deep lesions were present  Neither

Which best describes the extent of superficial crusts?  Found only in single area or in a few small, isolated areas  Found over large areas

Where were the superficial crusts found?  Head  Neck  Carapace  Plastron  Front flipper  Rear flipper  Tail

Which best describes the extent of the deep lesions exposing underlying tissues?

Found only in single area or in a few small, isolated areas  Found over large areas

Where were the deep lesions found?  Head  Neck  Carapace  Plastron  Front flipper  Rear flipper  Tail

Were there any leeches or leech eggs evident?  YES, small isolated egg patches or few adults

If yes, were photos taken?  YES  NO

YES, large egg patches or many adults  NO

ADDITIONAL COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## INSTRUCTIONS FOR COMPLETING STSSN STRANDING REPORT FORMS

Revised: 4 October 2021

**OBSERVER'S NAME AND CONTACT INFORMATION:** This is the person who documented the stranded sea turtle and who would be the best person to answer any questions about the stranding. Please provide an email address and phone number where you can be reached if we need to contact you for clarification of the reported data. Please also provide your institutional affiliation, as it will be associated with the stranding report.

**STRANDING DATE:** This is the date the stranded turtle was first reported or encountered. If you did not investigate it until a later date, please note that in the **Additional Comments** section at the bottom of the form. **Turtle number by day** is used to keep track of more than one turtle investigated on a single day by the same observer – your first turtle of the day is 001, your second of the same day is 002, etc. Please notify the state coordinator within 24 hours of any strandings you document and check the box describing how the state coordinators were notified.

**STRANDING LOCATION:** The accuracy of the stranding location is critical to the integrity of the data and the validity of the analytical products produced from them. Please provide as much detail as possible regarding the location of the stranding. **Latitude/Longitude** – if you have a GPS unit, navigation chart, or can pinpoint the location using Google Maps, please include the latitude/longitude of the stranding location. If you cannot provide accurate coordinates, please leave this space blank. Enter the county where the turtle was found (if known). Please use the comment box to provide as much detail as available about the stranding location, preferably using a street address or geographic references that can be located on a map. Good reference points are inlets, fishing piers, light houses, water tanks, etc.

**SPECIES:** If you are not positive of the species identification, check **Unidentified**, please do not guess.

**PHOTOS:** Please indicate if photos were taken. Complete photographic documentation of the stranded turtle, including any injuries or other anomalies, is the single-most important aspect of the stranding record. A complete set of photographs should accompany each stranding report. A complete photo series includes clear, focused, unobstructed views of the entire dorsal and ventral surfaces of the turtle and any injuries, entanglements, signs of disease, or other anomalies. Here, we note if there is basic photo documentation associated with the report. If **Yes** is selected for **Photos**, please indicate (by selecting the appropriate check boxes) if the dorsal and ventral aspects of the body are clearly visible in the photos. It's possible that photographs are available, but none clearly show the dorsal or ventral surface of the turtle (perhaps in the case of a floating turtle when the photographs were submitted by the public). In this case, check **Yes** for photos but do not check the boxes for either **Dorsal aspect visible** or **Ventral aspect visible**.

- **Please submit photos at their original size or resolution. Do not resize photos before submitting the stranding report.** Digital cameras and smartphones may have the ability to take photographs at reduced resolution. Smartphones may provide the option to or automatically reduce the size of photographs prior to their being attached to emails or text messages. Please ensure this does not occur. Consult your device's instructions to ensure high quality photos are captured.

**CIRCUMSTANCES OF ENCOUNTER:** We categorize strandings into various types and some of the types are then associated with a specific circumstance. Please select the appropriate **Circumstances of Encounter** corresponding to the following:

- **Traditional stranding.** This is when a dead, sick, or injured sea turtle is found washed ashore, floating, or underwater, and when it is not an incidental capture, a posthatchling, or a cold-stunning. Traditional strandings do not involve live, healthy, uninjured sea turtles.
- **Incidental capture.** This is when a sea turtle is captured directly incidental to an activity such as fishing (recreational or commercial), dredging, relocation trawling, research activities, or power plant operations.
- **Nesting related.** This is when an adult female sea turtle that has come ashore to nest becomes significantly disoriented (i.e., crawls off the beach or beyond nesting areas), trapped (and must be rescued), injured, or killed.
- **Posthatchling washback.** This is when a sea turtle is less than 10 cm curved carapace length (CCL, notch-tip; but  $\geq 5$  cm CCL). If the CCL is not measured but another carapace length measurement is taken, a posthatchling is selected as the type of encounter when any of those alternative measurements are less than 10 cm (and  $\geq 5$  cm).
- **Cold-stunning.** These turtles are usually healthy otherwise and tend to recover quickly (e.g., within days). This designation is primarily used for turtles found in areas of historic cold-stunning events (e.g., areas in and around St. Joseph Bay and areas in and around Mosquito Lagoon) and often in large groups (more than 10 individuals).

**CONDITION:** Record the initial condition of the stranded animal by selecting one of the following.

- **Alive.** The sea turtle was alive at the time of initial observation. Even if the turtle died after it was first reported or discovered, still select **Alive** as the Initial condition.

- **Fresh Dead or Mildly Decomposed.** In this case, you may initially question whether the turtle is alive. The carcass may have rigor mortis, but the eyes should be clear and there should be no smell of decomposition or evidence of bloating. If the carcass smells at all or is bloated, it is more than mildly decomposed (see below).
- **Moderately Decomposed.** In this case, there is a mild to moderate smell of decomposition and mild to moderate bloating and bulging eyes (if present). The soft tissue may feel spongy and the scutes and skin may be beginning to slough.
- **Severely Decomposed.** In this case, there is a foul smell and the carcass either is very distended by gas or has completely degassed (appears deflated). There is a mass of rotting flesh in areas of degassing and the scutes and skin are sloughing or missing. The limbs and carapace may be starting to disarticulate (especially upon handling) and there could be inundation by insect larvae (e.g., maggots).
- **Dried Carcass.** In this case, the carcass is completely desiccated with only dry skin and bones with little to no smell.
- **Skeletal.** In this case, the skeletal features are prominent and are disarticulating. Skin may still be present but large portions of the carcass are skeletonized.

#### EXAMINATION DETAILS:

- **Type of examination:** Here we document whether a stranded sea turtle was examined in-person by a trained STSSN participant or only evaluated from photos submitted by the public (or someone who was not a trained STSSN participant). Select the appropriate answer.
  - **In-person exam by STSSN participant.** A trained STSSN responder evaluated the stranded turtle in person.
  - **Evaluated from photos submitted by the public.** A trained STSSN responder did not evaluate the turtle in person, only through photographs of the stranded turtle.
- **Completeness of body (check all that apply).** Here we provide a general assessment of the completeness of the body of the stranded sea turtle.
  - **Complete.** Select if the head is not missing, none of the flippers are completely missing, and more than 50% of the shell (body) is present. If Complete is selected, none of the other three can be true (i.e., if any of the following are true, the body cannot be complete).
  - **Missing head.** Select if the entire head was missing.
  - **Missing all or most (>50%) of one or more flippers.** Select if one or more flippers were entirely or mostly (50% or more) missing.
  - **Missing 50% or more of shell (body).** Check if the carapace or plastron was entirely or mostly (50% or more) missing.
  - **Not determined.** Check if exam or photos are insufficient to determine the completeness of the body as described above.
- **Mouth checked.** Opening and carefully examining the stranded turtle's mouth (oral cavity) is an easy and useful addition to a standard external examination. For example, one or more hooks may be present in the mouth of a stranded turtle and this important finding may go undocumented if the oral cavity is not examined.
  - **Yes.** Select if the mouth was opened (or already opened) and the oral cavity was examined.
  - **No.** Select if the mouth was not opened (or already opened) and the oral cavity was not examined.
  - **Unknown.** Select if it is unknown whether the oral cavity was examined.

**TAGS:** All strandings should be thoroughly evaluated for the presence of external tags, tag scars, PIT tags, living tags, and tracking or transmitting equipment. Any stranded sea turtle with a tag should be considered for salvaging. Please consult your STSSN coordinator.

- **Flipper tags.** Three spaces are provided to enter tag numbers and the location of each tag (e.g., front left flipper). A close-up photograph in which the tag number is legible should be taken and submitted for each flipper tag.
- **PIT tags.** Ideally, all stranded turtles should be scanned for PIT tags. At the very least, any turtle with a flipper tag scar should be scanned. When entering a PIT tag ID, include any hyphens that are shown on the screen of the PIT tag scanner and note the location of the PIT tag. A close-up photograph in which the PIT tag ID is legible on the screen of the PIT tag scanner should also be taken and submitted.
- **Living tags.** Living tags are skin grafts from the lighter colored plastron to the darker colored carapace and vice versa. Living tags appear as circular or elliptical whitish spots on the carapace and as dark spots on the plastron. A turtle with a living tag on the carapace should have at least one on the plastron. Select **Yes** or **No** depending on whether this seems to be the case. It is important to note which scutes on the carapace and plastron have living tags on them. Living tags must be photographed. Contact your STSSN coordinator before disposing of a stranded turtle with a living tag.
- **Coded wire tags.** Coded wire tags are short lengths of magnetized steel wire bearing a unique code that may have been injected beneath the skin of flippers. Living tags are detected by a specialized scanner. If a living tag is found, it must be removed to read the unique code. If the turtle was scanned for living tags, select **Yes** or **No**. If a tag was detected, it is

important to record the flipper within which the tag was present. Contact your STSSN coordinator before disposing of a stranded turtle with a coded wire tag.

- **Tracking gear.** Tracking gear includes satellite, sonic, or radio transmitters. Satellite and sonic transmitters are usually on the highest portion of the carapace, but sonic transmitters may be placed along the margin of the carapace. If found, describe the tracking gear and where it was located. If you find a stranded sea turtle with tracking gear, do not attempt to remove the equipment from the turtle. Please consult your STSSN coordinator to determine whether the turtle should be salvaged.

**MEASUREMENTS:** Curved measurements follow the contours of the carapace while straight measurements are flat. Curved measurements are made with a nonmetal (vinyl), flexible tape measure while straight measurements are made with calipers. There are two carapace length measurements and one carapace width measurement. One of the carapace length measurements is made from the nuchal notch to the posterior marginal tip and the other is made from the nuchal notch to the posterior notch (see adjacent diagram on the reporting form). The carapace width measurement is made at the widest point of the carapace and is perpendicular to the midline of the carapace. Curved carapace measurements should be made on every stranded sea turtle with an adequately intact carapace. Straight carapace measurements are optional except in the case of a turtle with a flipper tag or a PIT tag, or with tracking gear. If the carapace measurements were estimated, please describe how the estimates were made. Be sure to note the unit of measurement (centimeter or inch).

**WEIGHT:** If the turtle was weighed using a scale, record the weight and the unit of measurement (kilogram or pound).

**TAIL MEASUREMENT:** Indicate whether the tail extended past the carapace by at least 5 cm (2 inches) in the case of a Kemp's ridley or olive ridley, at least 10 cm (4 inches) in the case of a loggerhead, green turtle, or hawksbill, or at least 15 cm (6 inches) in the case of a leatherback. If so, tail length should be measured from the posterior marginal tip of the carapace to the tip of the tail using a flexible measuring tape. Be sure to note the unit of measurement (centimeter or inch).

**FATE OR FINAL DISPOSITION:**

- If the turtle was alive, indicate whether the turtle was immediately released, unable to be recovered, or taken to a rehab facility. If the latter, provide the facility's name. If the turtle died prior to reaching the rehab facility, mark that check box.
- If the turtle was found dead or died prior to reaching the rehab facility, indicate whether the turtle was left where found; buried, rendered, or otherwise disposed of; or if the turtle was salvaged. If the turtle was left where found, indicate whether the turtle was marked and describe the mark. If the turtle was salvaged indicate where the remains were stored and whether this was done to conduct a necropsy or for another reason.

**ANTHROPOGENIC MATERIAL:** This section is used to document any man-made (i.e., anthropogenic) material that was found associated with the stranded turtle during the external examination, including anything found in the mouth (oral cavity). If there was an injury indicative of an interaction with anthropogenic material but that material was no longer present, do not document that in this section, document it in the section on **Injuries**. Anthropogenic material of interest in this section does not include research-related items that were purposely attached to the turtle as part of a study (e.g., satellite transmitter, flipper tag). Any anthropogenic material that was found should be documented by photographs. The photographs should clearly show all aspects of the material and include a scale marker (particularly in the case of fishing gear). If a turtle is found entangled in netting, stretch-out and photograph all aspects of the netting. All fishing gear found associated with a stranded turtle should be collected. Please consult your STSSN coordinator before disposing of any anthropogenic materials found associated with a stranded turtle. If no anthropogenic material as described was found, check **No** at the top of this section and skip to the next section (i.e., in this case, you do not need to check **No** for each question in this section). If anthropogenic material was found, please answer each question in this section and use the check boxes to note the location of any material.

**INJURIES:** This section is used to specifically document external injuries of significance to sea turtle conservation and recovery based on potential association with the cause of stranding, indication of human interaction, or implication on health and fitness. This includes any healing or healed wounds that are identifiable as any of the injury types included in this section. All Injuries reported in this section should be photographically documented. The photographs should clearly show all injuries and include a scale marker.

If no injuries of note were externally evident, check **No** at the top of this section and move to the next section. Also select **No** if an injury was only minor and nonspecific (e.g., notch in the webbing of a flipper, notch along the carapace margin, abrasions involving the shell) or if there were parts missing (e.g., head, flippers) that were attributable to scavenging. A common scenario is that the head or flippers were missing without clear evidence of shark bites or other significant injury defined herein. For this scenario, enter which parts were missing under **Completeness of Body** and select **No** for Injuries.

Select **Yes** if any injuries matching the following descriptions were found. Do not document the same injury in more than one place. For example, if you believe an injury was from a vessel-strike, only answer **Yes** to the question about **Definitive Vessel-Strike Injuries**, do not also answer **Yes** to the question about **Blunt Force Injuries** or Perforating or **Penetrating Wounds** to describe the same injury.

- **Definitive vessel-strike injury.** This is a discrete linear or curvilinear chop wound. In stranded sea turtles, these wounds are almost always created by the propeller, skeg, or rudder. A typical example is a series of parallel chop wounds caused by a vessel propeller (although a single chop wound is also common). An important feature is that bone and other tissue are destroyed as the propeller or other sharp components pass through it, leaving a gap (sometimes this gap is very narrow). Alternately, parts of the head, appendages, or shell may be sheared away (sometimes the body can be cut in half).
- **Blunt force injuries.** These injuries can also result in fractures of the head, carapace, or plastron, and often involve large or discrete areas of the body, depressing (crushing) the fractured bone, lacerating (tearing) the skin, and/or resulting in exposure of organs or soft tissue. Blunt force injuries often accompany definitive vessel strike injuries. For example, there may be extensive blunt force injuries with only some remnants of chop wounds noticeable beyond the extent of blunt force injuries. If any chop wounds are evident, select **Yes** for **definitive vessel-strike injuries** and **No** for **blunt force injuries** (even though these latter injuries might also be evident). Select **Yes** for **blunt force injuries** only if evident and no indication of a chop wound is seen.
- **Shark-bite injuries.** Shark-bite injuries are characterized by sharp incisions, typically observed as multiple adjacent wounds. Common features include deep scoring of bone and soft tissue, amputation or removal of body parts, or wounds created in a semicircular pattern. Answer **Yes** to this question if these types of injuries are evident.
- **Amputation of unknown cause.** Answer **Yes** to this question if the sea turtle is missing 50% or more of at least one flipper and the site of amputation shows signs of healing or is healed. This section is used to document antemortem amputations (i.e., those in turtles found alive or with visible inflammation/healing response) that lack distinctive features that clearly indicate the cause. Loss of a flipper due (or possibly due) to decomposition should not be recorded as an amputation. If the amputation can be specifically attributable to a cause such as entanglement or a shark bite, and is noted elsewhere, do not note it here (answer **No** to this question).
- **Incised wound.** These are wounds inflicted by humans and may occur under circumstances such as malicious injury, postmortem specimen collection, or butchery of turtles for meat. This category includes injuries that are cleanly incised as created by a knife or other sharp instrument. In general, these cuts tend to be longer and more continuous than those created by shark bites and the margins are cleanly cut (not tattered) compared to injuries caused by other scavengers. Common patterns include incisions made to remove the plastron, appendages, head, or specific parts of soft tissue, or inflicted across the neck.
- **Perforating or penetrating wound.** A perforating or penetrating wound is deeper than it is wide. Penetrating wounds extend into tissues whereas perforating wounds pass all the way through the affected structure. In lay terms, these are often described as “holes” in a body part or tissues. Causes observed in sea turtles include wounds created by projectiles (firearms, spearguns), sharp manmade objects such as fishing hooks and gaffs, and objects from nature such as fish bones, stingray barbs, and sea urchin spines.
- **Entanglement wound.** This refers to depressions or wounds that partially or completely encircle the neck or appendages as caused when linear material becomes wrapped around part of the body. In more severe, chronic (long-term) injuries to flippers, the area distal to the injury may be swollen or the skin and deeper tissues may be discolored or detaching. This wound category documents this injury only in cases where the causative material was no longer present (i.e., not documented in the **Anthropogenic Material** section).
- **Beak furrow.** This is a smooth, rounded indentation along the edge of the beak (usually on the upper beak near the jaw hinge) and can occur when the turtle ingests a linear foreign object such as fishing line and then pulls against it. As with an entanglement wound, this wound category documents this injury only in cases where the causative material was no longer present (i.e., not documented in the **Anthropogenic Material** section).
- **Other injury.** Select **Yes** if there is any other injury that may have contributed to the cause of stranding, resulted from human interaction, or significantly compromised health and fitness, and that has not been previously captured in any other section. This includes major chronic or healed injuries (e.g., loss of large portions of the shell, skeletal fractures) of uncertain cause. Select **No** if this is only a minor, nonspecific injury such as a notch in the webbing of a flipper or along the carapace margin.

**DISEASES AND LEECHES:** This section is used to specifically document external evidence of disease or possible disease. This includes the presence of externally visible masses such as the tumors associated with fibropapillomatosis, skin lesions, and leeches or leech eggs. Anything reported in this section should be photographically documented. The photographs should clearly show all features noted and include a scale marker. If none of these indications of disease were evident, check **No** at the top of this section and skip to the next section. Check **Yes** if any of these indications of disease were found.

- **Fibropapilloma-like tumors.** These masses typically have a papillary or cauliflower-like (verrucous) surface attached to the skin by a broad or narrow base. The surface also may appear smooth or ulcerated. These tumors exhibit various degrees of pigmentation, from pink to black and may be less than a cm to many cm in size. If present, note if any have a papillary texture or are evident on the eyes or in the mouth.
- **Non-fibropapilloma-like tumors.** This includes any tumor-like growth involving the skin that does not have the features of a fibropapilloma-like tumor. This includes other types of tumors, which are rare in sea turtles, as well as abnormalities that likely are not true tumors (i.e., that are non-neoplastic), such as aberrant accumulations of scar tissue or inflammatory material (e.g., abscesses). A common feature of these apparent tumors is that their external appearance is one of a space-occupying mass that extends from or upheaves the skin but does not have the characteristics of a fibropapilloma-like tumor or is not obviously associated with an identifiable injury. These include masses where the overlying skin exhibits normal coloration and scales.
- **Skin lesions.** Skin lesion is a general term for any abnormality of the skin. Here, we document abnormalities that manifest as inflammation or ulceration of the skin, which can occur as a result of trauma, due to organisms that live on the skin, or because of infections by bacteria, fungi, or viruses. Do not note skin lesions here that are associated with injuries, such as shark bites, that were noted in a previous section. **Superficial crusts** are recognizable as areas of the skin with a yellow- or tan-colored crust. In lay terms, **deep lesions** could be described as open sores that expose tissue below the skin.
- **Leeches.** Adult leeches attach to the skin of sea turtles and suck blood. They tend to be found in the corners of the mouth, around the cloaca, on the neck, and around the base of the flippers. They are typically 1-2 cm in length and are pinkish in color. Their eggs are found as patches of brown, circular cocoons that adhere to the skin, especially on the plastron and the undersurfaces of the carapace and flippers.

**ADDITIONAL COMMENTS:** Record any additional information that you have about the stranding here. You do not need to repeat any information that was entered elsewhere in the report.



# GEAR CHARACTERIZATION GUIDE

U.S. ATLANTIC AND GULF OF Mexico



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## Introduction

The Gear Characterization Guide is a component of the Sea Turtle Stranding and Salvage Network (STSSN). The purpose of this guide is to describe the characterization process for fishing gear recovered from sea turtles documented by the STSSN. The objective is consistent and informative characterization of fishing materials that informs threat identification and monitoring. The guide includes data collection forms that should be used in coordination with the guide.

### Instructions.

1. Based on the gear in hand, select the gear section on page 2 that best describes the material. Multiple sections may be used if necessary.
2. Use the **gear forms** at the end of this guide to document the fishing gear, as instructed in this guide.
3. Take photographs of the gear, as directed in this guide. Please see the **appendix** for examples of a complete photo series.
4. Upload the completed gear form to the STSSN database ([seaturtlestranding.com](http://seaturtlestranding.com)) as a miscellaneous form under the stranding report. Additionally, upload all photos of gear to the stranding report.

**Gear submission.** If fishing gear meets the submission criteria outlined in this guide, it should be sent to a NOAA gear specialist for evaluation. Any gear configuration that is suspected of coming from a commercial fishery, or if you are unsure, should be photographed and sent to a NOAA gear specialist.

- Depending on the region and gear type, all or parts of the gear may be requested to be shipped, or photographs with internal scales may be requested. Please include a copy of the gear form with the gear shipment.
- Follow the gear submission instructions below based on the stranding region.

### Southeast Region (SER; Gulf of Mexico US states and Atlantic coast states NC to FL)

- In addition to uploading forms and photos to the STSSN database, please email the form and photos to Lyndsey Howell ([Lyndsey.Howell@noaa.gov](mailto:Lyndsey.Howell@noaa.gov)).
- Send all gear that meets submission criteria to:

**NOAA Fisheries**  
**Attn: Lyndsey Howell**  
**3209 Frederic St.**  
**Pascagoula, MS 39567**

### Greater Atlantic Region (GAR; Atlantic coast states ME to VA)

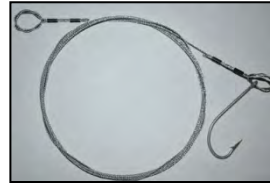
- Contact the GAR Sea Turtle Stranding and Disentanglement Coordinator: Kate Sampson ([Kate.Sampson@noaa.gov](mailto:Kate.Sampson@noaa.gov), 978-282-8470) for any gear submissions.
- For gear that does not meet submission criteria, document and photograph as described in this guide, and dispose of gear according to your state stranding or disentanglement coordinator guidelines.
- A **quick reference guide** of the necessary gear characterization steps, including photo documentation and submission for each gear type, is also provided.

**Unknown gear.** Any unknown origin gear should be thoroughly photographed and retained until a gear specialist can examine photographs or requests for the gear to be sent to them. Contact the state or regional contact as soon as possible.

## Hook and Fishing Line Gear

Includes:

- Hooks
- Fishing line ( $\leq 0.5$  cm)
- Leaders



Go to page 3.

## Trap/Pot Gear

Includes:

- Trap/Pot & fragments
- Nautical rope
- Trap/Pot buoys

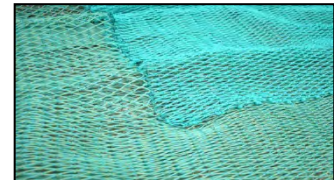


Go to page 9.

## Net Gear

Includes:

- Whole nets
- Net pieces
- Gear attached to net material



Go to page 15.

## Nautical Rope

A nautical rope is defined as a multifilament or braided line of any material,  $\geq 0.5$  cm in diameter, used for marine applications, such as a buoy, mooring, or anchor lines.

Includes:

- Braided rope
- Nylon rope
- Polypropylene rope
- Buoy rope (Miscellaneous, unknown origin)



Go to page 20.

## Hook and Fishing Line Gear Instructions

Start with Step 1 below to determine what information, material, and photographs should be collected. Use the Hook and Fishing Line Gear Form (see p. 25 - 26) provided to record the data requested in this guide. Please send all photographs, requested information, and gear according to the regional submission instructions located at the end of this section.

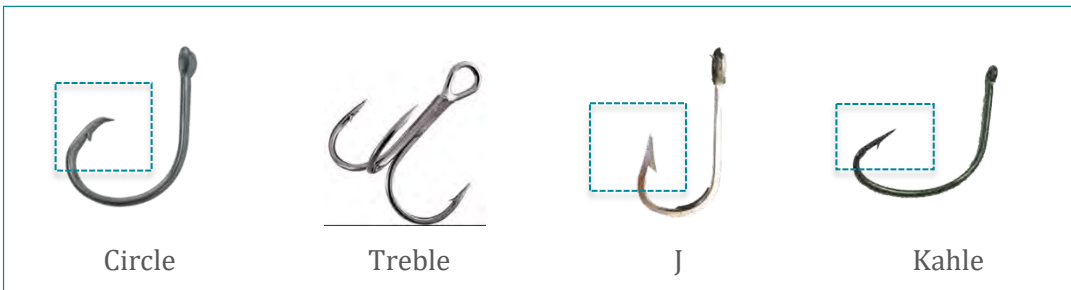
**Any gear configuration that is suspected to be commercial should be sent to a NOAA gear specialist for further analysis.**

### Hook

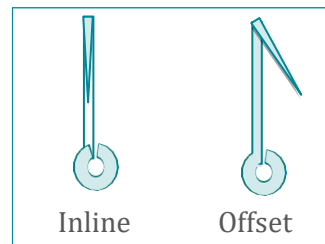
1. Take photographs of the entire gear with a scale bar. Record if a hook(s) is present (Yes/No), and if yes, record the total number of hooks present. If >3 unique hooks present, complete an additional hook gear form to characterize all hooks present. **See Appendix A - example 1 for a complete photo series of hook and line gear.**



2. For each unique type of hook, determine the shape of the hook and record it as either Circle, Treble, J, Kahle or, undetermined. A hook is considered unique if any physical characteristics (e.g., shape, color, condition, or size) are dissimilar from any other hook present. On a **Circle hook**, the tip is curved back towards the shank at a 90° angle. On a **Non-circle hook**, the tip is not curved back towards the shank at a 90° angle.



3. For each unique type of hook, record whether the hook is offset (Yes/No/Unknown). On an offset hook, the tip of the hook is not in line with the eye.



## Hook (Continued)

4. For each unique type of hook, record the hook's color as either silver (metallic or shiny appearance), red, grey (matte or non-shimmer), black, unknown, or other. If the color is not listed, use the other box to record the color. Hooks embedded in turtles for long periods may appear black due to a layer of oxidization. This layer can be rubbed off to reveal if the hook is silver or painted.

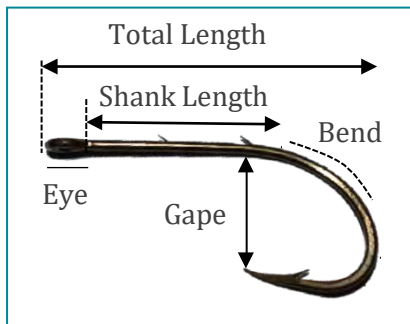
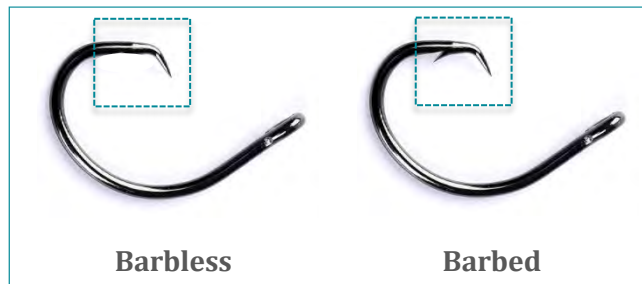


5. For each unique type of hook, record whether the hook is rusted or discolored.

6. For each unique type of hook, record whether the hook is barbless (Yes/No/Undetermined). Barbless hooks are hooks that do not have the small v-shaped metal piece at the hook's pointed end.



7. For each unique type of hook, measure and record the Total Length (mm) measurement. A metric vernier caliper is recommended for recording each hook measurement.



8. For each unique type of hook, measure and record the Shank Length (mm) measurement. The shank is the hook section from the eye's base to where the hook bend starts.

9. For each unique type of hook, measure and record the Gape (mm) measurement. See diagram for gape measurement illustrations.

10. For each unique type of hook, record whether the hook is magnetic (Yes/No/Undetermined). Iron is magnetic, so any metal with iron in it will be attracted to a magnet. In most cases, stainless steel hooks do not have iron in their composition and are not magnetic.

## Line ( $\leq 0.5$ cm)

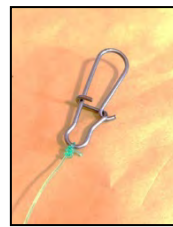
- Using a scale, photograph and record the number of any small diameter fishing lines ( $\leq 0.5$  cm) present. Answer all subsequent line questions for each unique type of line present. A line is considered unique if any physical characteristics (e.g., material, color, condition, or diameter) are dissimilar from any other line present. Record information consistently for each unique line type and any hook type recorded (e.g., Hook type #1 connected to line type #1). If the material consists of a tangle of many types of line ( $> 3$ ), only describe the most abundant line or line directly entangled to the turtle and photo-document the rest of the line.
- For each line type, record the line material, either monofilament or multifilament. A monofilament line is a single piece of plastic, usually nylon. A multifilament line (e.g., braided) consists of multiple synthetic materials woven into a line.
- For each line type, record the diameter of the line (mm). A metric vernier caliper is recommended for recording this measurement.
- Examine the line for attachments, such as a crimp, swivel, snap, or weight. Photograph all sides of each attachment and record what attachment type is present. If a weight is present, record the shape of the weight (e.g., pyramid, egg, diamond, bar, bullet, etc.) and the weight (g).



**Crimp**



**Swivel**

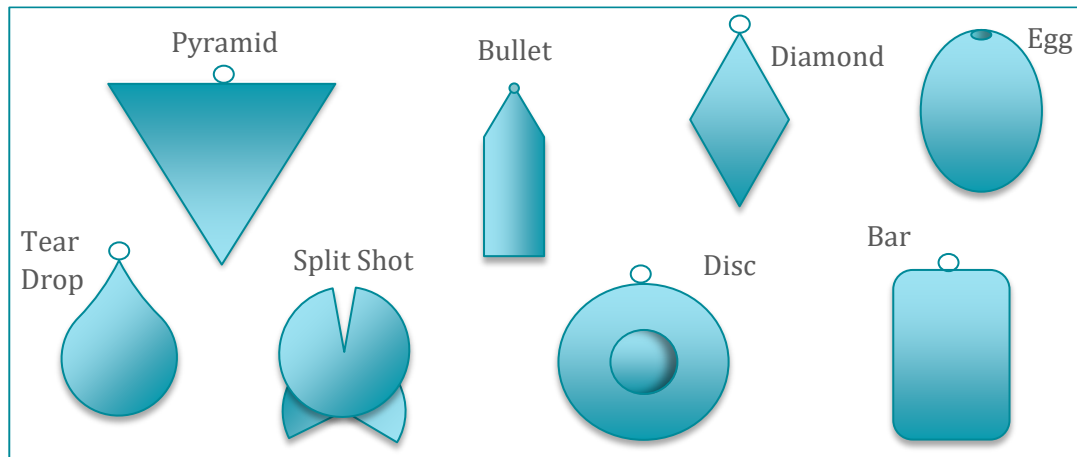


**Snap**



**Weight**

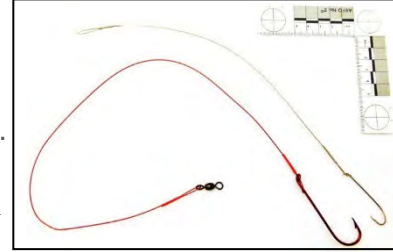
### *Examples of common weight shapes*



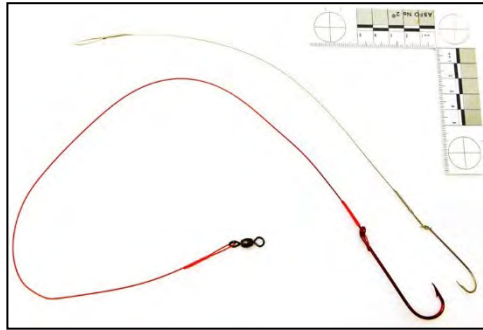


## Leader

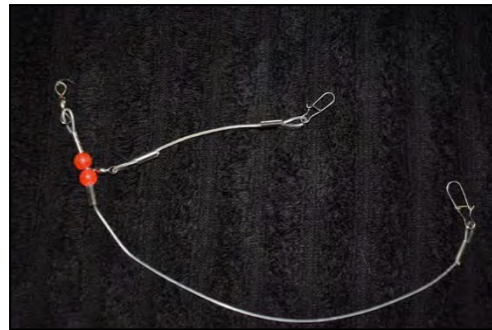
15. Using a scale, photograph, and record the number and presence of all leaders. A fishing leader is a length of fishing line (e.g., monofilament or wire) placed in between the mainline and the hook/lure. Answer all subsequent leader questions for each type of unique leader present. Record information consistently for each unique leader type and leader type and hook type recorded (e.g., Hook type #1 connected to leader type #1). If the material consists of a tangle of many types of leaders (> 3), only describe the leader that is most abundant or directly entangled to the turtle, and photo-document the remaining leaders.



16. Record the material the leader is made of; either plastic coated wire, monofilament, non-coated single strand wire, or non-coated multistrand wire.



**Plastic coated wire**



**Monofilament**



**Non-coated single strand wire**



**Non-coated multistrand wire**

## Leader (Continued)

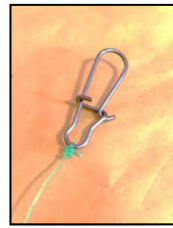
17. Examine the leader for any attachments, such as a crimp, swivel, snap, or weight. Photograph all sides of each attachment and record what attachment type is present. If a weight is present, record the shape of the weight (e.g., pyramid, egg, diamond, bar, bullet, etc.) and the weight (g).



**Crimp**



**Swivel**

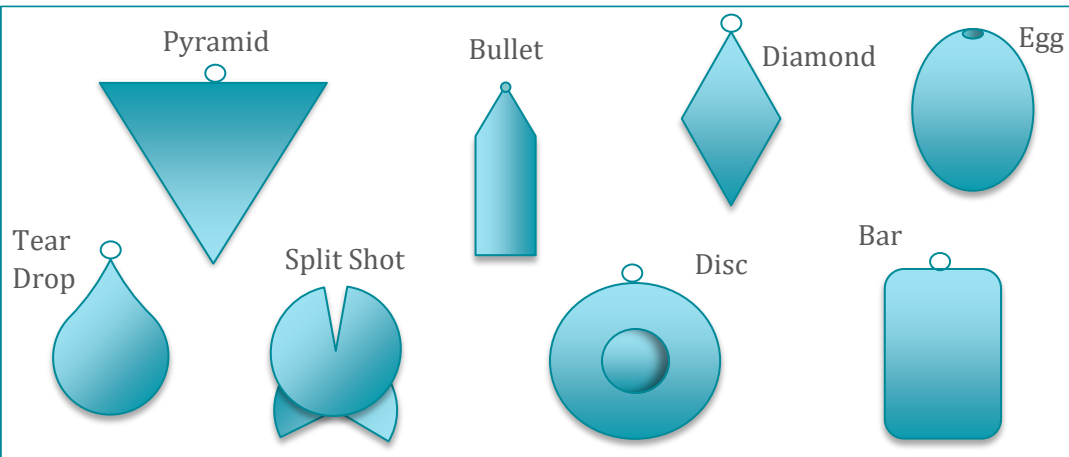


**Snap**



**Weight**

### *Examples of common weight shapes*





## Gear Submission

### For Greater Atlantic and Southeast regions:

1. If a hook and the attached line/leader meets one (or more) of the following criteria, collect and submit the gear for additional analyses. **If there is no hook present, it is not required to submit the line/leader to a Gear specialist.**

Circle Hook	J Hook
<p>If only a circle hook is present, submit if :</p> <ol style="list-style-type: none"><li>1. Silver or grey color, or rusted</li></ol> <p>If circle hook and line/leader are present, submit all gear if *:</p> <ol style="list-style-type: none"><li>1. Non-coated wire leader, or</li><li>2. Monofilament line <math>\geq 0.74</math> mm</li></ol> <p>*Submission is not necessary for silver/grey circle hooks attached to leaders or line that do not meet the criteria listed here.</p>	<p>If a J hook is present, submit hook and any attached gear if:</p> <ol style="list-style-type: none"><li>1. Total hook length measurement is <math>\geq 7.0</math> cm</li></ol>

2. Send the gear, data collection form, and all photographs according to your regional instructions provided in the guide introduction.

## Trap/Pot Gear Instructions

Start with Step 1 below to determine what information, material, and photographs should be collected. Use the Trap/Pot Gear Form (see p. 27 - 29) to record the data requested in this guide. Please send all photographs, requested information, and gear according to the regional submission instructions located at the end of this section.

Examples of common traps/pots  
(Left to right: Whelk pot, Lobster pot, Blue crab trap, Finfish trap)

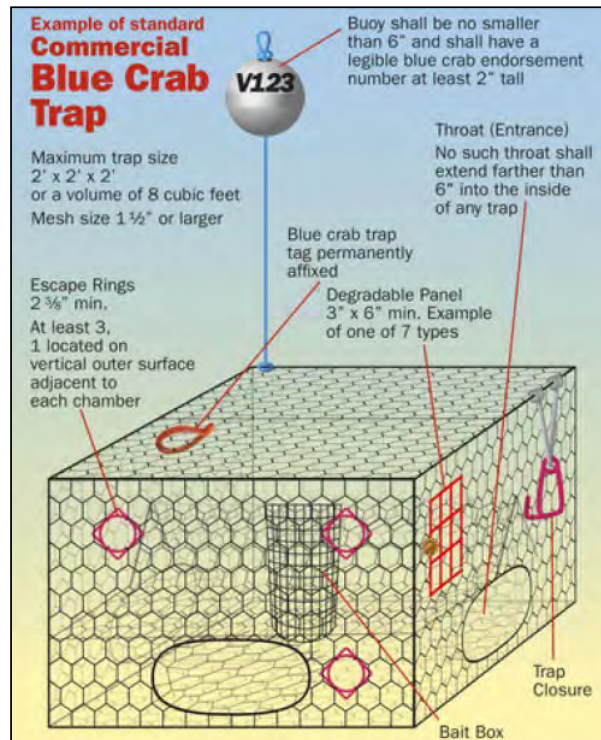


### Trap/Pot

1. Take photographs of the entire trap/pot, including the bait box, cage, bag, and any associated gear, such as the surface system, rope, line and buoys. If possible, open the trap/pot door and take photographs of the internal structure, including the funnel.

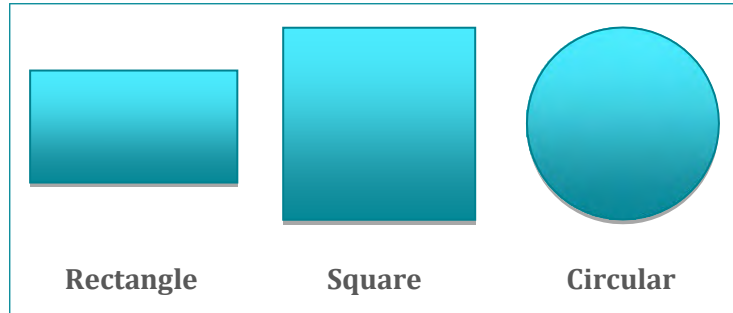
Record all materials that the trap/pot is constructed of, including plastic coated wire, galvanized wire, and rebar frame. Use the other field to record any trap/pot construction materials not listed, such as wood or plastic.

**See Appendix A –example 2 for a complete photo series of Trap/Pot gear.**



## Trap/Pot (Continued)

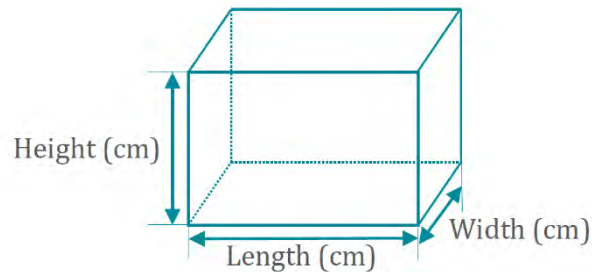
- Inspect the trap/pot overall body condition and record it as either intact, collapsed/dented, or only a fragment/piece of the original trap/pot.
- Record the trap/pot frame shape as either Rectangle, Square, Circular, or use the other field to describe a unique shape (e.g., Hexagon, Octagon, Pyramid, H, etc.) from the three common shapes provided.



- Measure and record the trap/pot length (cm) as indicated in the diagram. For circular-based traps/pots, record the diameter as the length measurement and leave the width measurement blank.

- Measure and record the trap/pot width (cm).

- Measure and record the trap/pot height (cm).



- Count and record the number of escape rings present. If no rings are present, record zero.

- Measure and record the inside diameter measurement (cm) of the escape rings. Take a photograph of this measurement(s).



## Trap/Pot (Continued)

9. Record and photograph any Turtle Excluder Devices. These bycatch reduction devices are generally rectangular inserts, constructed of either plastic or metal, attached to the throat or funnel entrance into a trap/pot.



10. Record whether there is catch or bycatch present in the trap/pot. If present, describe the general contents of the items.
11. Inspect the trap/pot for a permanent identification tag. If a tag is present, photograph and record all information on the tag.

Trap/Pot  
ID 123456  
Jane Smith  
12345 Smith Rd  
TEXAS 77777

## Line/Rope - Trap/Pot ( $\geq 0.5$ cm)

12. Photograph and record the number of unique lines or ropes present, including photographs of the point of attachment of the line to the trap/pot and each unique line. Answer all subsequent questions for each unique type of line present. A line is considered unique if any physical characteristics (e.g., material, color, condition, markings, or diameter) are dissimilar from any other line present.



If the material consists of a tangle of many types of line (> 3), only describe the most abundant line or line directly entangled to the turtle and photo-document the rest of the line.

13. For each unique line type, record the line material, either monofilament or multifilament. If a line varies (markings, material, or color) down the length of the line, each section is considered a unique line type.
14. For each line type, record the diameter of the line (mm). A vernier caliper is recommended for recording this measurement.
15. For each line type, record the length of the line(m).
16. For each line type, describe the line color(s).



Example: Line marking





## Line/Rope – Trap/Pot ( $\geq 0.5$ cm) (Continued)

17. Examine the line for knots. Record whether there are any knots present (Yes/No). If present, photograph and record the number of knots present. Include photographs of any connections (e.g., knots, splices, etc.) between two ropes or a rope and a buoy.



18. Examine the line for loops. Record whether there are any loops present (Yes/No). If present, photograph and record the number of loops present. The image to the right is an example of a line formed into a loop with the ends overlapped and hog ringed together to form a weak link.



19. Examine the line for breakaway/weak links. Weak links are made in various styles and configurations (e.g., plastic pieces, hog rings, etc.). Record whether there is a breakaway/weak link present (Y/N). If present, photograph the breakaway/weak links.



20. Examine the line for weights. Record whether there are any weights present (Yes/No) on the line. If present, photograph the weighted section of rope.



Example: Weighted line

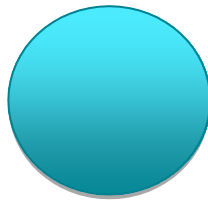
21. Examine the line for any additional attachments not previously described. If present, photograph these attachments and describe them. Use the next section to document any buoys attached to the line.

## Buoy - Trap/Pot

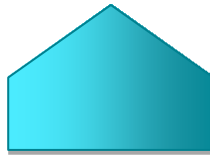
22. Photograph each buoy present and record the total number of buoys present.
23. Record if multiple buoys are stacked on the same line (e.g., double bullet, double acorn, or 1 bullet on top of 1 acorn).



24. For each unique buoy, record the buoy's shape as either round, acorn, bullet, or poly ball. If the buoy is not one of these shapes, record as other and describe the shape. A buoy is considered unique if the shape, color, pattern, marking, or condition is dissimilar.



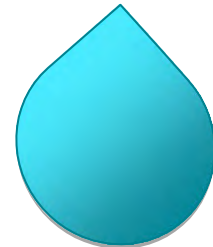
Round



Acorn



Bullet



Poly Ball

25. For each unique buoy, record the color and describe any patterns.
26. For each unique buoy, record the condition of the buoy. The condition of each buoy can be described as good (no deterioration), fair (slight to moderate deterioration), poor (significant deterioration), or other (describe the condition).
27. For each unique buoy, if identification numbers are present, record whether they are illegible or legible. Photograph and record all legible numbers/alphabet letters, including old and new permit numbers.



## Gear Submission

If the turtle is in the marine environment and the gear is still actively fishing, document the gear and leave the gear in place. For gear that is derelict, either displaced, lost or on a stranded beached turtle, follow the submission steps below.

### **For Greater Atlantic Region:**

1. Collect all pot/trap gear (besides the pot/trap) for submission.
2. Send the gear requested, data collection form, and all photographs according to your regional instructions provided in the guide introduction.

### **For Southeast Region:**

1. Cut a 12" section of each unique rope, include any special attachments, such as weights or breakaway links.
2. Send the gear requested, data collection form, and all photographs according to your regional instructions provided in the guide introduction.



## Net Gear Instructions

Start with Step 1 below to determine what information, material, and photographs should be collected. Use the Net Gear Form (see p. 30 – 31) to record the data requested in this guide. Please send all photographs, requested information, and gear according to the regional submission instructions located at the end of this section.

Examples of nets (Left to right: Cast Net, Shrimp Trawl, Fish Aggregation Device)



### Netting

1. Take multiple photographs of the entire net or net piece stretched out. Include a scale in the photographs. **See Appendix A – example 3 for a complete photo series of net gear.**

Photograph and record whether the net is constructed of monofilament (e.g., cast net) or multifilament (e.g., shrimp trawl) material, or both. Answer this question and all subsequent questions for each unique type of net present. A net is considered different if any of the physical characteristics (e.g., material, color, mesh length) are dissimilar.





## Netting (Continued)

2. Measure and record the stretched length of mesh for each netting type present.

- For *knotted* netting, this is the distance between the centers of two opposite knots in the same mesh when the net is fully stretched. To obtain this measurement, stretch the net until the sides come together and the opening is completely collapsed.



- For *knotless* netting, this is the distance between the centers of two opposite joints along its long axis when the net is fully stretched. To obtain this measurement, stretch the net until the sides come together and the opening is completely collapsed.



- Take a photograph of the netting close-up with scale; include photographs of all sizes or types of netting.



3. Examine the netting for any identifying marks or text and record whether any such marks are present (Yes/No). If present, photograph and document the identifying marks or text located on the netting.

4. Examine the net for the presence of rollers. Record whether there are any rollers present (Y/N). If present, photograph all unique rollers on the net.



## Net Components

5. Examine the net for the presence of a chain. Record whether there is a chain present (Y/N). If present, photograph any chain present on the net.



6. Examine the net for the presence of any weights, including a lead line. Record whether there are weights present (Y/N). If present, photograph each unique weight type.

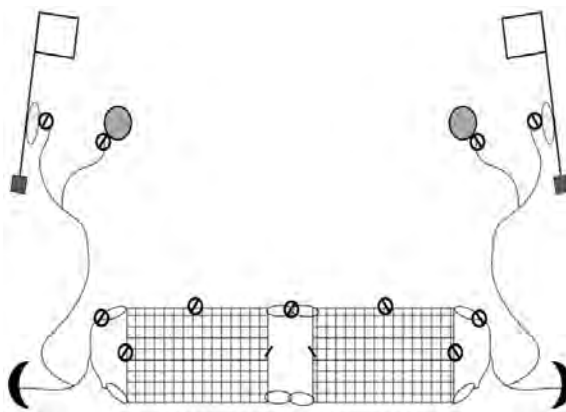


7. Photograph and record any other components on the net (e.g., TED, BRD, shackles, bag rings, floats, pingers), and include the overall net location.



Examples of Net Components (L:R): Pinger, BRD, TED

8. Photograph and record the presence of any weak links along the floatline or net panels. The graphic below depicts an anchored gillnet gear configuration with the circle-backslash symbols depicting weak link locations in the lines and panels. The images below are examples of weak links in the float lines of the net panels.



Example: Anchored gillnet gear configuration with weak links (*circle-backslash*)



## Line – Net Gear

9. Photograph and record the number of unique line or ropes present with the net. Answer all subsequent questions for each unique type of line present. A line is considered unique if any physical characteristics (e.g., material, color, condition, markings, or diameter) are dissimilar from any other line present. If a line varies (markings, material, or color), each section is also considered a unique line type.



If the material consists of a tangle of many types of line (> 3), only describe the most abundant line or line directly entangled to the turtle and photo-document the rest of the line.

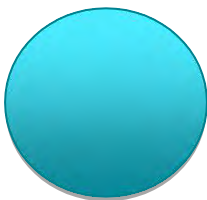


10. For each unique line type, record the line material, either monofilament or multifilament.
11. For each line type, record the diameter of the line (mm). The use of a caliper is recommended for this measurement.
12. For each line type, record the length of the line (m).
13. For each line type, describe and record all line colors.

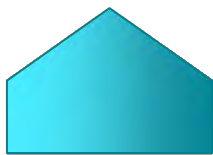


## Buoy –Net Gear

14. Photograph each buoy present and record the total number of buoys present.
15. Record if there are multiple buoys stacked upon each other on the same line (e.g., double acorn, double bullet, or 1 bullet on top of 1 acorn).
16. For each unique buoy, record the buoy's shape as either round, acorn, bullet, or poly ball. If the buoy is not one of these shapes, record as other, and describe the shape. A buoy is considered unique if the shape, color, pattern, marking, or condition is dissimilar.



Round



Acorn



Bullet



Poly Ball

## Buoy – Net Gear (Continued)

17. For each unique buoy, record the color and describe any patterns.
18. For each unique buoy, record the condition of the buoy. The condition of each buoy can be described as good (no deterioration), fair (moderate deterioration), poor (significant deterioration), or other (describe the condition).
19. For each unique buoy, if identification numbers are present, record whether they are illegible or legible. Photograph and record all legible numbers/alphabetletters.



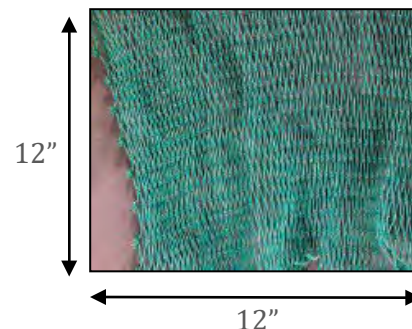
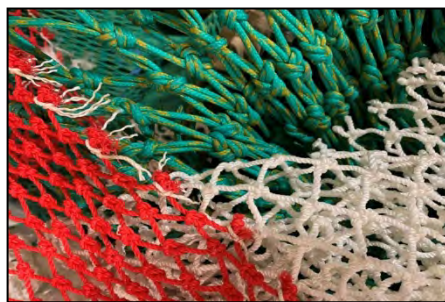
## Gear Submission

### For Greater Atlantic Region:

1. Collect all net gear for submission.
2. Send the gear requested, data collection form, and all photographs according to your regional instructions provided in the guide introduction.

### For Southeast Region:

1. Cut a section of each mesh type, measuring approximately 12" x 12". If the mesh stretched length is >12", send a cut section that is 4' x 4'.
2. Cut a 12" section of each unique rope, include any special attachments, such as weights or breakaway links on the rope.
3. Send the gear requested, data collection form, and all photographs according to your regional instructions provided in the guide introduction.





## Nautical Rope Instructions

The nautical rope section encompasses miscellaneous lines, buoys, and attachments of uncertain origin. Start with Step 1 below to determine what information, material, and photographs should be collected. Use the Nautical Rope Form (see p. 32 – 33) to record the data requested in this guide. Please send all photographs, requested information, and gear according to the regional submission instructions located at the end of this section.



### Line/Rope – Nautical Rope

1. Photograph and record the number of unique line or ropes present, including photographs of the point of attachment of the line to any non-rope material and each unique line. Answer all subsequent questions for each unique type of line present. A line is considered unique if any physical characteristics (e.g., material, color, condition, markings, or diameter) are dissimilar from any other line present.



If the material consists of a tangle of many types of line (> 3), only describe the most abundant line or line directly entangled to the turtle and photo-document the rest of the line.

2. For each unique line type, record the line material, either monofilament or multifilament.
3. For each line type, record the diameter of the line (mm). A caliper is recommended for recording this measurement.
4. For each line type, record the length of the line (m).
5. For each line type, describe the color(s) of the line.



Example: Line marking



## Line/Rope – Nautical Rope (Continued)

6. Examine the line for knots. Record whether there are any knots present (Yes/No). If present, photograph and record the number of knots present. Include photographs of any connections (e.g., knots, splices, etc.) between two ropes or a rope and a buoy.



7. Examine the line for loops. Record whether there are any loops present (Yes/No). If present, photograph and record the number of loops present. The image to the right is an example of a line formed into a loop with the ends overlapped and hog ringed together to form a weak link.



8. Examine the line for breakaway/weak links. Weaklinks are made in various styles and configurations (e.g., plastic pieces, hog rings, etc.). Record whether there is a breakaway or weak link present (Y/N). If present, photograph the breakaway/weak links.



Examples: off the shelf weak links

9. Examine the line for weights. Record whether there are any weights present (Yes/No) on the line. If present, photograph the weighted section of rope.



10. Examine the line for any additional attachments not previously described. If present, photograph these attachments and describe them. Use the next section to document any buoys attached to the line.

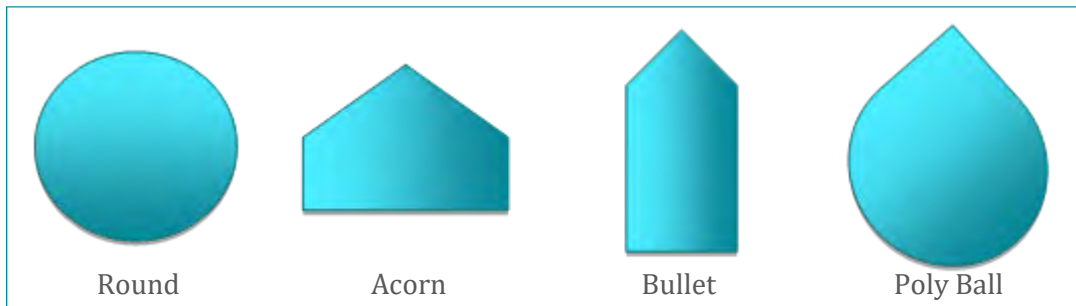
## Buoy – Nautical Rope

11. Photograph any buoy present, including any unique markings or text, and record the total number of buoys present.

12. Record if multiple buoys are stacked on the same line (e.g., double acorn, double bullet, or 1 bullet on top of 1 acorn).



13. For each unique buoy, record the buoy's shape as either round, acorn, bullet, or poly ball. If the buoy is not one of these shapes, record as other and describe the shape. A buoy is considered unique if the shape, color, pattern, marking, or condition is dissimilar.



14. For each unique buoy, record the color and describe any patterns.

15. For each unique buoy, record the condition of the buoy. The condition of each buoy can be described as good (no deterioration), fair (slight to moderate deterioration), poor (significant deterioration), or other (describe the condition).

16. For each unique buoy, if identification numbers are present, record whether they are illegible or legible. Photograph and record all legible numbers/alphabet letters.



## Gear Submission

### **For Greater Atlantic Region:**

1. Collect all gear for submission.
2. Send the gear requested, data collection form, and all photographs according to your regional instructions provided in the guide introduction.

### **For Southeast Region:**

1. Cut a 12" section of each unique rope, include any special attachments, such as weights or breakaway links.
2. Send the gear requested, data collection form, and all photographs according to your regional instructions provided in the guide introduction.





# Gear Characterization and Submission Reference Guide

HOOK AND LINE	TRAP/POT GEAR	NET GEAR	NAUTICAL ROPE
<b>HOOK</b>	<b>TRAP/POT</b>	<b>NETTING</b>	<b>LINE/ROPE</b>
<b>Record and Photograph:</b>	<b>Record and Photograph:</b>	<b>Record and Photograph:</b>	<b>Record and Photograph:</b>
<ul style="list-style-type: none"> <li>• Shape</li> <li>• Offset</li> <li>• Color</li> <li>• Rusted/discolored</li> <li>• Barbless</li> </ul>	<ul style="list-style-type: none"> <li>• Material</li> <li>• Condition</li> <li>• Shape</li> <li>• Escape ring</li> <li>• TED</li> <li>• Catch/bycatch</li> <li>• Tag information</li> </ul>	<ul style="list-style-type: none"> <li>• Material</li> <li>• Identifying marks</li> <li>• Weak links</li> </ul>	<ul style="list-style-type: none"> <li>• Material</li> <li>• Color(s)</li> <li>• Knots</li> <li>• Loops</li> <li>• Weak links</li> <li>• Weight</li> <li>• Attachments</li> </ul>
<b>Measure:</b>		<b>Measure:</b>	
<ul style="list-style-type: none"> <li>• Total length (cm)</li> <li>• Shank length (cm)</li> <li>• Gape (cm)</li> </ul>		<ul style="list-style-type: none"> <li>• Stretched mesh length (cm)</li> </ul>	
<b>LINE</b>		<b>COMPONENTS</b>	
<b>Record and Photograph:</b>	<b>Measure:</b>	<b>Record and Photograph:</b>	<b>Measure:</b>
<ul style="list-style-type: none"> <li>• Material</li> <li>• Attachments <ul style="list-style-type: none"> <li>• Weight Shape</li> <li>• Weight(g)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Length (cm)</li> <li>• Width (cm)</li> <li>• Height (cm)</li> <li>• Ring diameter (cm)</li> </ul>	<ul style="list-style-type: none"> <li>• Rollers</li> <li>• Chain</li> <li>• Weights</li> <li>• Other components</li> </ul>	<ul style="list-style-type: none"> <li>• Diameter (mm)</li> <li>• Length (m)</li> </ul>
<b>Measure</b>	<b>TRAP/POT LINE</b>	<b>LINE</b>	<b>BUOY</b>
<ul style="list-style-type: none"> <li>• Line diameter (mm)</li> </ul>	<b>Record and Photograph:</b>	<b>Record and Photograph:</b>	<b>Record and Photograph:</b>
	<ul style="list-style-type: none"> <li>• Material</li> <li>• Color(s)</li> <li>• Knots</li> <li>• Loops</li> <li>• Weak links</li> <li>• Weight</li> <li>• Attachments</li> </ul>	<ul style="list-style-type: none"> <li>• Material</li> <li>• Color(s)</li> <li>• Weak links</li> </ul>	<ul style="list-style-type: none"> <li>• Shape</li> <li>• Color/pattern</li> <li>• Condition</li> <li>• Identification marks</li> </ul>
<b>LEADER</b>	<b>Measure:</b>	<b>NET BUOY</b>	<b>GEAR SUBMISSION</b>
<b>Record and Photograph:</b>	<ul style="list-style-type: none"> <li>• Diameter (mm)</li> <li>• Length (m)</li> </ul>	<b>Record and Photograph:</b>	<b>GEAR SUBMISSION</b>
<ul style="list-style-type: none"> <li>• Material</li> <li>• Attachments <ul style="list-style-type: none"> <li>• Weight Shape</li> <li>• Weight (g)</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>• Diameter (mm)</li> <li>• Length (m)</li> </ul>	<p><b>GAR:</b> Send all gear  <b>SER:</b> Send a 12" length of each unique rope, include special attachments</p>
<b>GEAR SUBMISSION</b>	<b>TRAP/POT BUOY</b>	<b>Record and Photograph:</b>	
<b>SER &amp; GAR:</b> If a hook and the attached line/ leaders meets one or more of the following criteria, submit the gear:	<b>Record and Photograph:</b>	<ul style="list-style-type: none"> <li>• Shape</li> <li>• Color/pattern</li> <li>• Condition</li> <li>• Identification marks</li> </ul>	
<b>If a Circle Hook:</b>	<b>GEAR SUBMISSION</b>	<b>GEAR SUBMISSION</b>	
<ul style="list-style-type: none"> <li>• Silver or grey, or rusted appearance</li> <li>• Non-coated wire leader</li> <li>• Monofilament line <math>\geq 0.74\text{mm}</math></li> </ul>	<b>GAR:</b> Send all gear (minus the pot)	<b>GAR:</b> Send all gear <b>SER:</b> Send 12 x 12" cut section of each mesh type. If straight mesh length $>12"$ send 4' x 4' piece. If a line/rope is present, send a 12" length of each unique rope, include special attachments	
<b>If a J Hook:</b>	<b>SER:</b> If a line/rope is present, send a 12" length of each unique rope, include special attachments		
<ul style="list-style-type: none"> <li>• Total length <math>\geq 7.0\text{cm}</math></li> </ul>			

## Sea Turtle Stranding and Salvage Network – Hook and Fishing Line Gear Form

All fishing gear removed from a sea turtle by the Sea Turtle Stranding and Salvage Network should be documented using this form. Depending on the gear type, all or specific parts of the gear may be requested to be shipped to a NOAA or state gear specialist. Please include this form with gear submission.

Shipping Date		Stranding ID Number	
<b>Stranding Location:</b>	State		<b>Contact Information:</b> First Name
Latitude			Last Name
Longitude			Phone Number

### Hook

1. Is there a hook(s) present?       No       Yes, # present: \_\_\_\_\_

If yes, answer the following questions for each unique hook present.

	Type #1	Type #2	Type #3
2. What shape is the hook?	<input type="checkbox"/> Circle <input type="checkbox"/> Treble <input type="checkbox"/> J <input type="checkbox"/> Kahle <input type="checkbox"/> Undetermined	<input type="checkbox"/> Circle <input type="checkbox"/> Treble <input type="checkbox"/> J <input type="checkbox"/> Kahle <input type="checkbox"/> Undetermined	<input type="checkbox"/> Circle <input type="checkbox"/> Treble <input type="checkbox"/> J <input type="checkbox"/> Kahle <input type="checkbox"/> Undetermined
3. Is the hook offset?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
4. What color is the hook?	<input type="checkbox"/> Silver <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input type="checkbox"/> Unknown <input type="checkbox"/> Other:	<input type="checkbox"/> Silver <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input type="checkbox"/> Unknown <input type="checkbox"/> Other:	<input type="checkbox"/> Silver <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input type="checkbox"/> Unknown <input type="checkbox"/> Other:
5. Is the hook rusted or discolored?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
6. Is the hook barbless?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Undetermined	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Undetermined	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Undetermined
7. What is the Total Length (mm)?			
8. What is the Shank Length (mm)?			
9. What is the Gape (mm)?			
10. Was the hook magnetic?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Undetermined	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Undetermined	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Undetermined

Line			
11. Is there a line present? <input type="checkbox"/> No <input type="checkbox"/> Yes, # present: _____ If yes, answer the following questions for each unique line:			
	Type #1	Type #2	Type #3
12. What material is the line?	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament
13. What is the line diameter (mm)?			
14. Select if present (select all that apply). If weight(s) present, provide shape and weight (g).	<input type="checkbox"/> Snap <input type="checkbox"/> Crimp <input type="checkbox"/> Swivel <input type="checkbox"/> Weight: Shape: _____ Weight (g): _____	<input type="checkbox"/> Snap <input type="checkbox"/> Crimp <input type="checkbox"/> Swivel <input type="checkbox"/> Weight: Shape: _____ Weight (g): _____	<input type="checkbox"/> Snap <input type="checkbox"/> Crimp <input type="checkbox"/> Swivel <input type="checkbox"/> Weight: Shape: _____ Weight (g): _____
Leader			
15. Is there a leader present? <input type="checkbox"/> No <input type="checkbox"/> Yes, # present: _____ If yes, answer the following questions for each unique leader:			
	Type #1	Type #2	Type #3
16. What material is the leader made of?	<input type="checkbox"/> Plastic Coated Wire <input type="checkbox"/> Monofilament <input type="checkbox"/> Non-coated Single Strand Wire <input type="checkbox"/> Non-coated Multistrand Wire	<input type="checkbox"/> Plastic Coated Wire <input type="checkbox"/> Monofilament <input type="checkbox"/> Non-coated Single Strand Wire <input type="checkbox"/> Non-coated Multistrand Wire	<input type="checkbox"/> Plastic Coated Wire <input type="checkbox"/> Monofilament <input type="checkbox"/> Non-coated Single Strand Wire <input type="checkbox"/> Non-coated Multistrand Wire
17. Select if present (select all that apply). If weight(s) present, provide shape and weight (g).	<input type="checkbox"/> Crimp <input type="checkbox"/> Swivel <input type="checkbox"/> Snap <input type="checkbox"/> Weight: Shape: _____ Weight (g): _____	<input type="checkbox"/> Crimp <input type="checkbox"/> Swivel <input type="checkbox"/> Snap <input type="checkbox"/> Weight: Shape: _____ Weight (g): _____	<input type="checkbox"/> Crimp <input type="checkbox"/> Swivel <input type="checkbox"/> Snap <input type="checkbox"/> Weight: Shape: _____ Weight (g): _____
For Gear Specialist Only – please attach any additional notes related to the gear evaluation			
Gear examined by: _____			
The gear is determined to be: <input type="checkbox"/> Commercial <input type="checkbox"/> Recreational <input type="checkbox"/> Undetermined			
Can the gear be attributed to a fishery? <input type="checkbox"/> No <input type="checkbox"/> Yes: _____			
If a crimp is present, how was it applied? <input type="checkbox"/> Mechanical <input type="checkbox"/> Hand-crimp <input type="checkbox"/> Undetermined			
If leader present, is it premanufactured? <input type="checkbox"/> No <input type="checkbox"/> Yes			
If a hook is present, is it: <input type="checkbox"/> Non-stainless steel <input type="checkbox"/> Stainless steel <input type="checkbox"/> Undetermined			
Comments:			

## Sea Turtle Stranding and Salvage Network – Trap/Pot Gear Form

All fishing gear removed from a sea turtle by the Sea Turtle Stranding and Salvage Network should be documented using this form. Depending on the gear type, all or specific parts of the gear may be requested to be shipped to a NOAA or state gear specialist. Please include this form with gear submission.

Shipping Date		Stranding ID Number	
<b>Stranding Location:</b>	State		<b>Contact Information:</b>
			First Name
Latitude		Last Name	
Longitude		Phone Number	

### Trap/Pot

1. What is the trap/pot constructed of? (Select all that apply):	<input type="checkbox"/> Plastic Coated Wire	<input type="checkbox"/> Rebar Frame	
	<input type="checkbox"/> Galvanized Wire	<input type="checkbox"/> Other: _____	
2. What is the trap/pot condition?	<input type="checkbox"/> Intact	<input type="checkbox"/> Collapsed/Dented	<input type="checkbox"/> Fragment
3. What is the trap/pot frame shape?	<input type="checkbox"/> Rectangle	<input type="checkbox"/> Square	<input type="checkbox"/> Circular
	<input type="checkbox"/> Other: _____		
4. What is the trap/pot length (cm)?	_____		
5. What is the trap/pot width (cm)?	_____		
6. What is the trap/pot height (cm)?	_____		
7. How many escape rings?	_____		
8. What is the inside diameter of the rings (cm)?	_____		
9. Is there a Turtle Excluder Device?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
10. Is there catch/bycatch present?	<input type="checkbox"/> No	<input type="checkbox"/> Yes, describe: _____	
11. If tag present, record information:	_____		
_____			

## Line/Rope - Trap/Pot Gear

12. Is there a line present?       No  Yes, # present: \_\_\_\_\_

If yes, answer the following questions for each line type present.

	Type #1	Type #2	Type #3
13. What material is the line?	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament
14. What is the line diameter (mm)?			
15. What is the line length (m)?			
16. What is the color of the line?			
17. Are there knots present?	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:
18. Are there loops present?	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:
19. Are there breakaway/weak links?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
20. Are there any weights present?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
21. Are there any attachments?	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:

22. Is there a buoy?     No     Yes, # present: \_\_\_\_\_

If yes, answer the next questions for each buoy type present.

23. Are the buoys stacked?     No     Yes, order of stacking: \_\_\_\_\_

	Type #1	Type #2	Type #3
24. What is the shape of the buoy?	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other:	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other:	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other:
25. Describe the buoy color and pattern:			
26. What is the condition of the buoy?	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other:	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other:	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other:
27. What is the condition of ID number(s)/letter(s)?	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record:	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record:	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record:

**For Gear Specialist Only – please attach any additional notes related to the gear evaluation**

Gear examined by: \_\_\_\_\_

The gear is determined to be:     Commercial     Recreational     Undetermined

Can the gear be attributed to a fishery?     No     Yes: \_\_\_\_\_

What material is the line/rope?     Braided     Nylon     Polypropylene  
 Other: \_\_\_\_\_

What is the bait door/well type?     Inverted     Wire     Missing     Lidless Panel Lid

Was the bait door/well open?     No     Yes

Comments: \_\_\_\_\_

## Sea Turtle Stranding and Salvage Network - Net Gear Form

All fishing gear removed from a sea turtle by the Sea Turtle Stranding and Salvage Network should be documented using this form. Depending on the gear type, all or specific parts of the gear may be requested to be shipped to a NOAA or state gear specialist. Please include this form with gear submission.

Shipping Date		Stranding ID Number	
<b>Stranding Location:</b>	State		<b>Contact Information:</b> First Name
Latitude			Last Name
Longitude			Phone Number

### Netting

	Type #1	Type #2	Type #3
1. What type of net material?	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament
2. What is the stretched mesh length (cm) for each netting type?			
3. Were there identifying marks/text?	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:

### Net Components

	Type #1	Type #2	Type #3
4. Are there rollers present?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
5. Is there a chain present?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
6. Are there weights present?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
7. Are there other components?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
8. Are there weak links present?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes

### Line

9. Is there a line present?	<input type="checkbox"/> No <input type="checkbox"/> Yes, # present: _____		
If yes, answer the following questions for each line type present.			
	Type #1	Type #2	Type #3
10. What material is the line?	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament
11. What is the line diameter (mm)?			
12. What is the line length (m)?			
13. What is the color of the line?			

**Buoy - Net Gear**

14. Is there a buoy?  No  Yes, # present: \_\_\_\_\_

If yes, answer the next questions for each buoy type present.

15. Are the buoys stacked?  No  Yes, order of stacking: \_\_\_\_\_

	Type #1	Type #2	Type #3
16. What is the shape of the buoy?	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other:	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other:	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other:
17. Describe the buoy color and pattern:			
18. What is the condition of the buoy?	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other:	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other:	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other:
19. What is the condition of ID number(s)/ letter(s)?	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible record:	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record:	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record:

**For Gear Specialist Only – please attach any additional notes related to the gear evaluation**

Gear examined by: \_\_\_\_\_

The gear is determined to be:  Commercial  Recreational  Undetermined

Can the gear be attributed to a fishery?  No  Yes

Was the netting (select all that apply):  Trawl  Chafe  Elephant Ear  
 Gillnet  Other, describe: \_\_\_\_\_

Was the netting material:  Monofilament  Nylon  Polypropylene

Where there any gill net tie-downs present?:

Comments:

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## Sea Turtle Stranding and Salvage Network – Nautical Rope Form

All fishing gear removed from a sea turtle by the Sea Turtle Stranding and Salvage Network should be documented using this form. Depending on the gear type, all or specific parts of the gear may be requested to be shipped to a NOAA or state gear specialist. Please include this form with gear submission.

Shipping Date		Stranding ID Number	
<b>Stranding Location:</b>	State		<b>Contact Information:</b>
Latitude			First Name
Longitude			Last Name
			Phone Number

### Line/Rope

1. Is there a line present?       No  Yes, # present: \_\_\_\_\_

If yes, answer the following questions for each line type present.

	Type #1	Type #2	Type #3
2. What material is the line?	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament	<input type="checkbox"/> Monofilament <input type="checkbox"/> Multifilament
3. What is the line diameter (mm)?			
4. What is the line length (m)?			
5. What is the color of the line?			
6. Are there knots present?	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:
7. Are there loops present?	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:	<input type="checkbox"/> No <input type="checkbox"/> Yes, number:
8. Are there breakaway/weak links?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
9. Are there any weights present?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
10. Are there any attachments?	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:

## Buoy - Nautical Rope Gear

11. Is there a buoy?     No     Yes, # present: \_\_\_\_\_

If yes, answer the next questions for each buoy type present.

12. Are the buoys stacked?     No     Yes, order of stacking: \_\_\_\_\_

	Type #1	Type #2	Type #3
13. What is the shape of the buoy?	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other: _____	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other: _____	<input type="checkbox"/> Round <input type="checkbox"/> Acorn <input type="checkbox"/> Bullet <input type="checkbox"/> Poly Ball <input type="checkbox"/> Other: _____
14. Describe the buoy color and pattern:			
15. What is the condition of the buoy?	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other: _____	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other: _____	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Other: _____
16. What is the condition of ID number(s)/letter(s)?	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record: _____	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record: _____	<input type="checkbox"/> Illegible <input type="checkbox"/> Legible, record: _____

### For Gear Specialist Only – please attach any additional notes related to the gear evaluation

Gear examined by: \_\_\_\_\_

The gear is determined to be:     Commercial     Recreational     Undetermined

Can the gear be attributed to a fishery?     No     Yes: \_\_\_\_\_

What material is the line/rope?     Braided     Nylon     Polypropylene  
 Other: \_\_\_\_\_

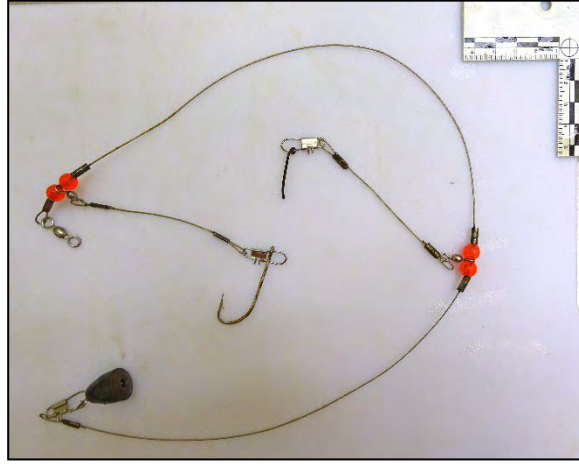
Comments: \_\_\_\_\_

# Appendix A. Complete Gear Photo Series

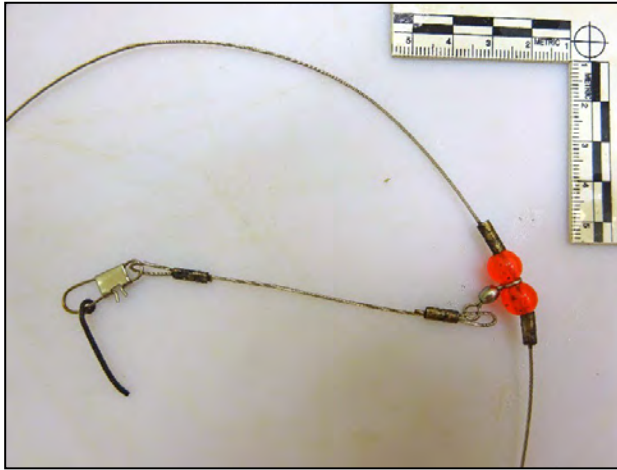
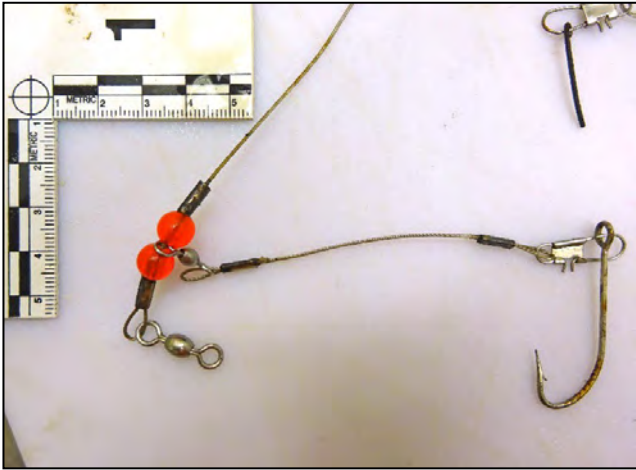
## Example 1: Hook and Line Gear



Example: Green turtle with embedded hook attached to a leader and multiple accessories.



Complete photo: Take a photo that shows all of the gear/tackle with a ruler or scale. Use a dark background for light colored or transparent line. *Please do not use objects (e.g., coins, instruments), in lieu of a numeric scale.*



Configuration photos: Take closer images of all aspects of the material to clearly show how they are attached or arranged. Always include an internal ruler or scale.

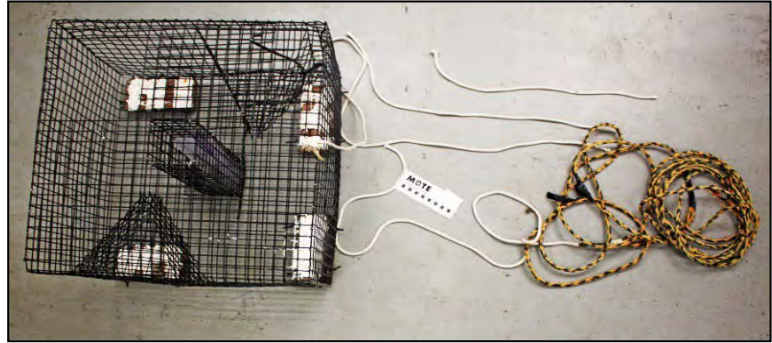




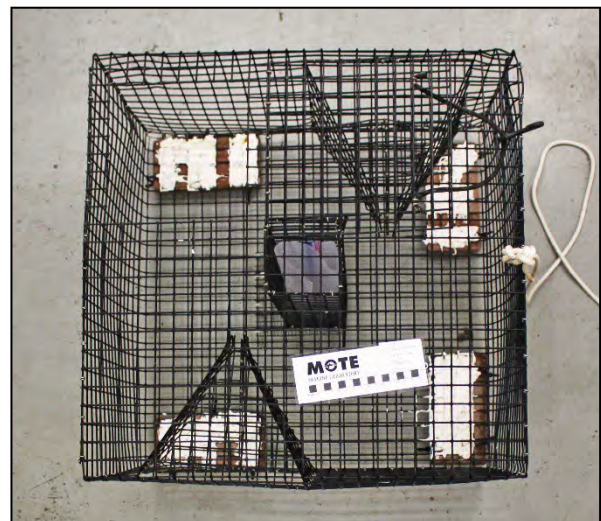
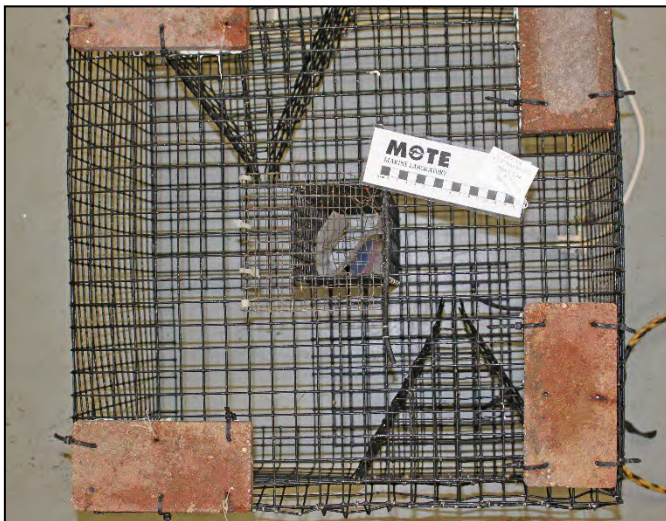
## Example 2: Trap/Pot Gear



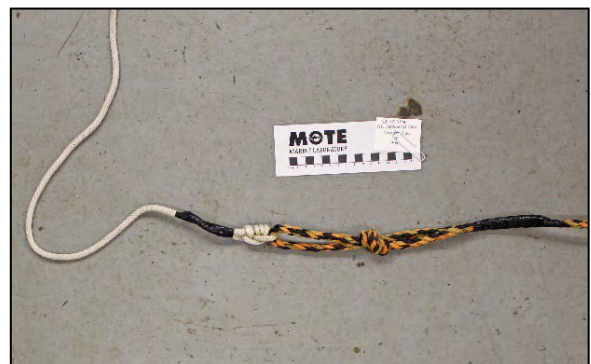
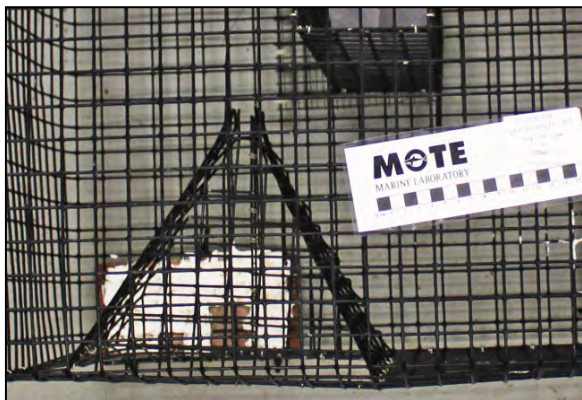
Example: Loggerhead turtle entangled in trap/pot gear.



Complete photo: Take a photo that shows all the gear as intact as possible with a ruler or scale. Include any lines, weights, or floats. *Please do not use objects (e.g., coins, instruments), in lieu of a numeric scale.*



Trap photos: Take photos of multiple sides of the pot/ trap to clearly show its size and shape and any features, such as openings, escape rings and bait holders.

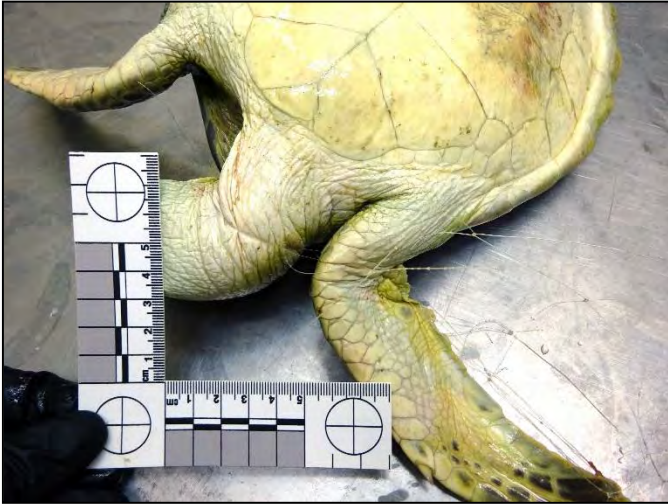


Trap component close-ups: Take closer images of any tags, identifiers/numbers, openings, other trap

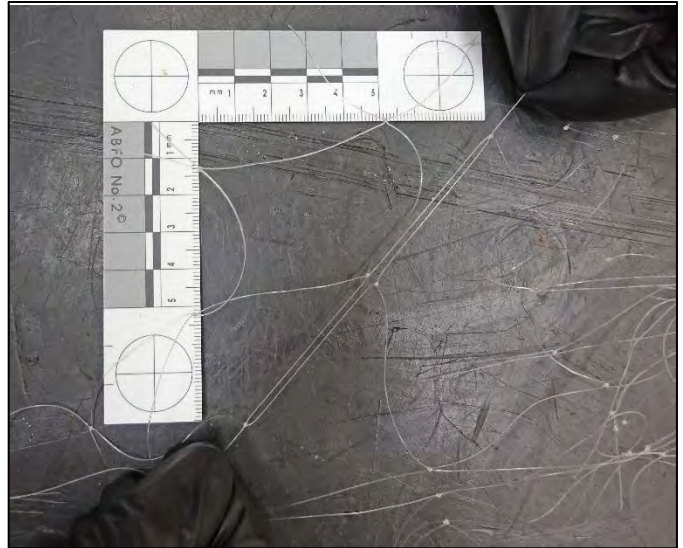
Buoy and line: Take photos of buoys and line. Include close-ups of any knots, loops, weak links, numbers/identifiers, or other components.



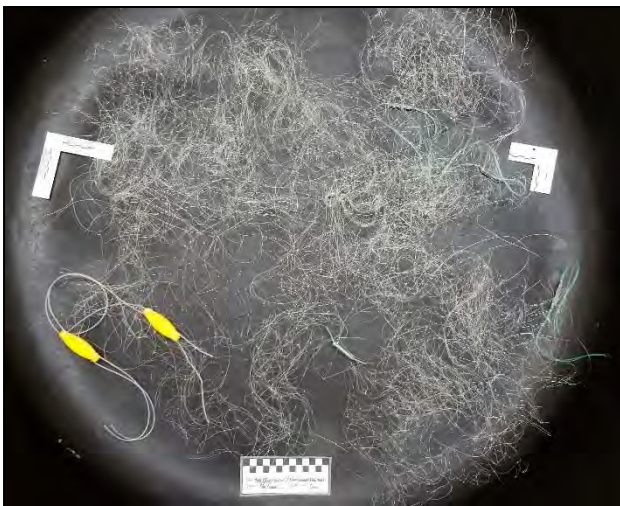
### Example 3: Net Gear



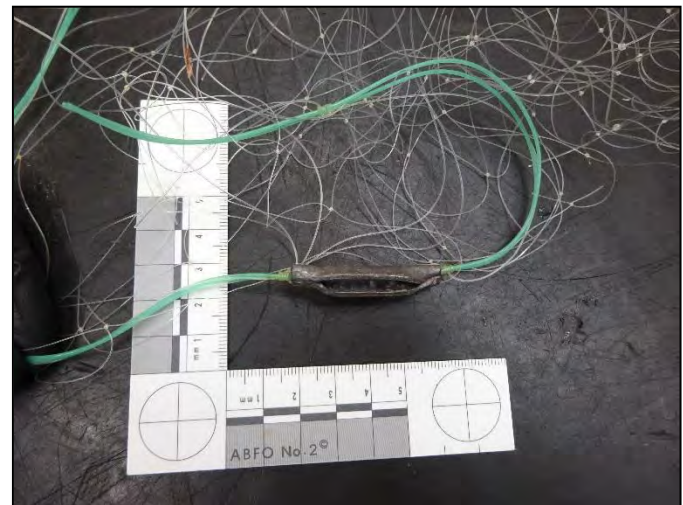
Example: Green turtle entangled in monofilament gillnet.



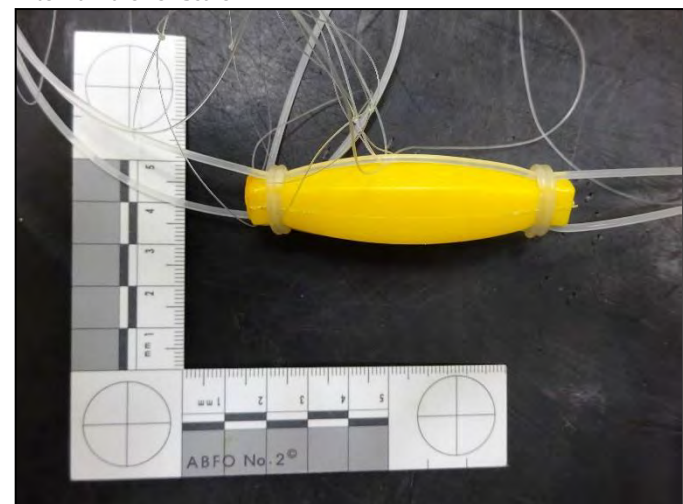
Measure stretched length of mesh: Continue pulling the mesh until fully stretched and the sides have come together. Measure the distance between the centers of the two opposite knots.



Complete photo series: Take a photo that shows all the netting as intact as possible with a ruler or scale. Spread out the netting as much as possible. Use a dark background for transparent netting. Include any lines, including unique lines tied together, markings, weights, buoys, or floats. *Please do not use objects (e.g., coins, instruments) instead of a numeric scale.*



Component photos: Take closer images of any floats, weights, and attachments and the associated mesh and line. Always include an internal ruler or scale.





**EXTERNAL INJURIES:**  Y  N  CBD

PHOTO w/ scale

- 1-Parallel chop wounds \_\_\_\_\_  2-Single linear/non-parallel wound \_\_\_\_\_  3-Blunt/crushing \_\_\_\_\_  4-Amputation \_\_\_\_\_  
 5-Entangle-type \_\_\_\_\_  6-Penetrating \_\_\_\_\_  7-Bite wound \_\_\_\_\_  8-Incised/mutilation \_\_\_\_\_  9-Other \_\_\_\_\_  
 Hemorrhage \_\_\_\_\_  Exudate/fibrin \_\_\_\_\_  Partial healing \_\_\_\_\_  Completely healed \_\_\_\_\_  None \_\_\_\_\_  CBD \_\_\_\_\_  
 Coelom breached \_\_\_\_\_  Brain/spinal cord damaged \_\_\_\_\_  Lung exposed \_\_\_\_\_  Other organs exposed \_\_\_\_\_  CBD \_\_\_\_\_

**MAN-MADE MATERIAL:**  Y  N  Assoc with injury? If yes, enter the above number(s) here: \_\_\_\_\_ (e.g., 5)  Saved?

- Hook(s) \_\_\_\_\_  Monofilament line \_\_\_\_\_  Multifilament line (<=5mm) \_\_\_\_\_  Multifilament line (>5mm) \_\_\_\_\_  Buoy \_\_\_\_\_  
 Netting \_\_\_\_\_  Trap \_\_\_\_\_  Oil \_\_\_\_\_  Other \_\_\_\_\_  PHOTO w/ scale

**OTHER EXTERNAL ANOMALIES:**  Y  N  CBD

PHOTO

- Heavily encrusted w/ epibiota  Leeches:  Few  Many  Gooseneck barnacles  
 FP \_\_\_\_\_:  Papillary texture?  On eyes?  In mouth? FP severity (circle): 1 2 3  
 Ulceration/dermatitis \_\_\_\_\_:  Superficial crusts-  few/small  large  Deep/ulcerated-  few/small  large  
 Masses (non-FP or uncertain) \_\_\_\_\_  Other \_\_\_\_\_

**External Findings Comments:** (include any entries of "Other" & description of any man-made material)

**MUSCLE STATUS:**  Well-muscled/No atrophy  Partial atrophy  Severe atrophy  CBD

**FAT STATUS:**  Abundant/No atrophy  Partial atrophy  Severe atrophy(depleted)  CBD

PHOTO

**COELOM:**  No findings  Exudate/fibrin  Blood clots  Encysted parasites  Organs pale  Other  CBD

Comments:

Internal FP? (list locations & describe w/ comments)

**HEART & MAJOR VESSELS:**  No findings  Trauma  Thickened vessels  Other  CBD

Comments:

**Blood in heart chambers:**  Y  N  CBD

**LIVER & GALL BLADDER:**  No findings  Atrophy (shrunken, black)  Trauma  Other  CBD

Comments:

**GI TRACT:**  No findings  Abnormal  Ingested fish  Ingested shrimp  CBD  Mouth examined?

- 10-Ulcers/exudate \_\_\_\_\_  11-Trauma/perforation \_\_\_\_\_  12- Obstruction/blockage \_\_\_\_\_  13-Intussusception \_\_\_\_\_  
 14-Plication \_\_\_\_\_  15-Fluke eggs \_\_\_\_\_  16-Other \_\_\_\_\_  
 <5% affected \_\_\_\_\_  5-25% \_\_\_\_\_  >25-50% \_\_\_\_\_  >50% \_\_\_\_\_  N/A

**MAN-MADE MATERIAL:**  Y  N  Assoc with injury? If yes, enter the number(s) here: \_\_\_\_\_ (e.g., 14)  Saved?

PHOTO w/ scale

Mouth  Empty  Contents (describe): \_\_\_\_\_

Esophagus:  Empty  Contents (describe): \_\_\_\_\_

Stomach:  Empty  Contents (describe): \_\_\_\_\_

Intestine (first 1/2):  Empty  Contents (describe): \_\_\_\_\_

Intestine (last 1/2):  Empty  Contents (describe): \_\_\_\_\_

**Comments:** (include any entries of "Other" & description of any man-made material)

**UROGENITAL:**  No findings  Abnormal  CBD

Option description on pg. 1

**Sex:**  Male  Female  Unk

Comments:

**RESP: Trachea/bronchi:**  No findings  Froth-some  Froth-lots  Sand/sed  Trauma  Exudate  Other  CBD

**Lungs:**  No findings  Wet/frothy  Sand/sediment  Trauma  Exudate  Other  CBD

Comments:

**BRAIN & SPINAL CORD:**  No findings  Trauma  Hemorrhage  Exudate  Fluke eggs  Other  CBD

Comments:





**MAN-MADE MATERIAL:**  Y  N  Assoc with injury? If yes, enter number(s) from injury section here: \_\_\_\_\_ (e.g., 5)

Hook(s) \_\_\_\_\_  Monofilament line \_\_\_\_\_  Multifilament line(≤5mm) \_\_\_\_\_  Multifilament line(>5mm) \_\_\_\_\_  Buoy \_\_\_\_\_  
 Netting \_\_\_\_\_  Trap \_\_\_\_\_  Oil \_\_\_\_\_  Paint \_\_\_\_\_  Other \_\_\_\_\_

**If entangled, how many of wraps around body part?:** \_\_\_\_\_, **which part?** \_\_\_\_\_<sup>1</sup> (use anatomic codes)

*indicate the same for any additional areas involved:* \_\_\_\_\_<sup>2</sup>; \_\_\_\_\_<sup>3</sup>; \_\_\_\_\_<sup>4</sup>; \_\_\_\_\_<sup>5</sup> (Example: 4, R)

**If a ligature (entanglement-type) mark/wound present:**  Depression in skin only  Skin incised/ulcerated  
 Muscle/bone exposed  Flipper necrotic/gangrenous  Flipper missing

**Description of Material:** (include color, shape, size, and any identification numbers)  PHOTO w/ scale

**Disposition of Material:**

**OTHER EXTERNAL ANOMALIES:**  Y  N  CBD

PHOTO

Heavily encrusted w/ epibiota  Leeches:  Few  Many  Gooseneck barnacles  
 FP \_\_\_\_\_:  Papillary texture?  On eyes?  In mouth? FP severity (circle): 1 2 3  
 Ulceration/dermatitis \_\_\_\_\_:  Superficial crusts-  few/small  large  Deep/ulcerated-  few/small  large  
 Masses (non-FP or uncertain) \_\_\_\_\_  Other \_\_\_\_\_

**Other External Anomalies Comments:** (include any entries of "Other")

**INTERNAL EXAMINATION** (additional space for comments on pg.4)

**MUSCLE STATUS:**  Well-muscled/No atrophy  Partial atrophy  Severe atrophy  CBD

**FAT STATUS:**  Abundant/No atrophy  Partial atrophy  Severe atrophy(depleted)  CBD

PHOTO

**MUSCULOSKELETAL:**  EXAMINED  CBD **Joint fluid:**  No findings  Cloudy/solid material  Bloody

**Skeletal findings:**  No findings  Fractures  Dislocation  Avulsions  Deformities  Other (note location(s) in comments)

**Musculature findings:**  No findings  Trauma  Hemorrhage  Pallor  Necrosis  Other

**Findings/Comments:**

**COELOM:**  EXAMINED  CBD **Coelomic fluid Volume:** \_\_\_\_\_ ml  actual  est.

**Coelomic fluid:**  No findings  Cloudy/solid material  Blood-tinged  Blood clots  Exudate/fibrin  Other

**Viscera (general):**  No findings  Encysted parasites  Organs pale  Adhesions  Masses  Other

**Findings/Comments:**

**Internal FP?** (list locations & number/site):

**HEART & MAJOR VESSELS:**  EXAMINED  CBD

**Blood in heart chambers:**  Y  N  CBD

**Pericardial fluid:**  No findings  Cloudy/solid material  Blood-tinged  Blood clots  Fibrin  Other

**Heart/vessel Findings:**  No findings  Trauma  Endocarditis/arteritis  Vessels thickened  Adhesions  Other

**Findings/Comments:**

**LIVER & GALL BLADDER:**  EXAMINED  CBD

**Liver Findings:**  No findings  Pallor  Atrophy (shrunken, black)  Trauma  Masses (≤2mm)  Masses (>2mm)  Other

**Biliary Findings:**  No findings  Gall bladder thickened  Bile ducts thickened  Ulcers  Exudate  Stones  Other

**Findings/Comments:**

**INTERNAL EXAMINATION** (cont.)

**ANATOMIC LOCATION CODES:** Mouth(M) Esophagus(Es) Stomach(St) Small intestine(Si) Colon(Co) Cloaca(Cl)

**ALIMENTARY TRACT:**  EXAMINED  CBD  Mouth examined?

No findings  Abnormal  Ingested fish  Ingested shrimp

10-Ulcers/exudate  11-Trauma/perforation  12- Obstruction/blockage  13-Intussusception

14-Plication  15-Fluke eggs  16-Nematodes  17-Other

<5% affected  5-25%  >25-50%  >50%  N/A

**MAN-MADE MATERIAL:**  Y  N  Assoc with injury? If yes, enter the number(s) here: \_\_\_\_\_ (e.g., 14)  Saved?

Hook  Line  Misc hard plastic  Misc soft plastic  Plastic bag

Balloon  Oil/tar  Other

PHOTO w/ scale

**Disposition of Material:** \_\_\_\_\_

Mouth:  Empty  Contents (describe): \_\_\_\_\_

Esophagus:  Empty  Contents (describe): \_\_\_\_\_

Stomach:  Empty  Contents (describe): \_\_\_\_\_

Intestine (first 1/2):  Empty  Contents (describe): \_\_\_\_\_

Intestine (last 1/2):  Empty  Contents (describe): \_\_\_\_\_

**Findings/Comments:** (include any entries of "Other" & description of any man-made material)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SPLEEN:**  EXAMINED  CBD Spleen Findings:  No findings  Trauma  Enlarged  Masses  Other

**PANCREAS:**  EXAMINED  CBD Pancreas Findings:  No findings  Trauma  Masses  Other

**Findings/Comments:**

\_\_\_\_\_

**UROGENITAL:** (kidneys, reproductive, urinary bladder) –  EXAMINED  CBD

Kidneys/Bladder Findings:  No findings  Trauma  Enlarged  Asymmetrical  Masses  Other

Gonads identified as:  Testes  Ovaries  Unknown (**Indicate sex on Page 1**)

**Testes-characterization:**  Cylindrical  Ellipsoidal  Flat **Testes-size:** \_\_\_\_\_ length x \_\_\_\_\_ width (cm)

**Ducts:**  Not expanded from wall  Distinct ridge  Pendulous  Obvious white coils

**Ovaries-characterization:**  All follicles <4mm  Developing follicles (4-24mm)  Corpus luteum (>7mm)  Corpus albicans

**Ovary length:** \_\_\_\_\_ (cm)

**Oviduct-characterization:**  White, straight (<3mm diameter)  Partially convoluted (3-15mm diameter)

Very convoluted (>15mm diameter)  Contains eggs (>24mm)

**Findings/Comments:**

\_\_\_\_\_

**RESPIRATORY: Trachea/bronchi:**  EXAMINED  CBD

Trachea/bronchi findings:  No findings  Froth-some  Froth-lots  Sand/sed  Trauma  Exudate  Other  CBD

**Lungs:**  EXAMINED  CBD

Lungs findings:  No findings  Wet/frothy  Sand/sediment  Trauma  Exudate  Other  CBD

**Findings/Comments:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## **Sea Turtle Stranding and Salvage Network – Gross Necropsy Form Instructions**

**Introduction:** All sea turtles in United States waters are listed as threatened or endangered under the Endangered Species Act (ESA). Postmortem examination (necropsy) of deceased sea turtles is an important means of identifying causes of mortality, monitoring wildlife health, and collecting life history data and biological samples. Valuable information about threats and sea turtle populations is gleaned from necropsy and is used by NOAA to implement ESA and support management and species recovery. These forms are used to document macroscopic (gross) observations during necropsy and pertinent contextual information related to the examination. The forms consist of 4-page and abbreviated 2-page versions. The latter may be used under time-limited circumstances. The data fields are intended to facilitate the consistent recording of important life history, health, and mortality information, including specific data captured within the contemporary STSSN database. These forms are not intended to replace other necropsy data forms in use by various organizations, as long as the same data can be obtained from alternative forms. However, use of the STSSN forms may be strongly encouraged under certain circumstances where maximum consistency benefits mortality investigation (e.g., unusual events). Additional information, including photographic examples of the abnormalities noted in these forms, can be found in NOAA’s Online Sea Turtle Necropsy Lecture Series, which is freely accessible at: <https://www.fisheries.noaa.gov/national/marine-life-distress/online-sea-turtle-necropsy-lecture-series>.

**STSSN #:** This identifier is assigned on the Sea Turtle Stranding and Salvage Network – Stranding Report and consists of the initials of the observer that documented the turtle followed by the by two-digit year, month, and day, and ending in the numbered order in which the turtle was documented by the observer and on this day. For example, if Jane Allen Doe documents two turtles on 3/1/2021, the STSSN # for the second turtle is JAD210301-002. This number cross-references the necropsy form with additional data collected in the Stranding Report.

**Other identifier(s)/#:** Any additional identifiers assigned to the turtle, including patient name, alternative alphanumeric IDs, or tag numbers may be entered here.

**Rehab:** Indicate whether the sea turtle was admitted to a rehabilitation facility.

**Found dead:** Indicate whether the sea turtle was deceased when it was found.

**If no, date of death:** If the sea turtle was found alive, provide the date of death in the following format: MM/DD/YYYY.

**Euthanized:** Select whether the sea turtle was euthanized.

**Frozen/Thawed:** Indicate whether the carcass was frozen prior to examination.

**Condition at necropsy:** Select the condition of carcass at the time of examination according to the following criteria:

**1 - Fresh or mildly decomposed:** The carcass may be in rigor mortis, but the eyes should be clear and there should be no smell of decomposition or evidence of bloating. If the carcass smells at all or is bloated, it is more than mildly decomposed (see below).

**2 - Moderately decomposed:** There is a mild to moderate smell of decomposition and mild to moderate bloating and bulging eyes (if present). The soft tissue may feel spongy and the scutes and skin may be beginning to slough.

**3 - Severely decomposed:** There is a foul smell and the carcass either is very distended by gas or has completely degassed (appears deflated). There is a mass of rotting flesh in areas of degassing and the scutes and skin are sloughing or missing. The limbs and carapace may be starting to disarticulate (especially upon handling) and there could be inundation by insect larvae (e.g., maggots).

**4 - Dried carcass:** The carcass is completely desiccated with only dry skin and bones with little to no smell.

**5 - Skeletal:** The skeletal features are prominent and are disarticulating. Skin may still be present but large portions of the carcass are skeletonized.

**Date necropsied:** Provide the date of examination in the following format: MM/DD/YYYY.

**Examiner:** Enter the name of person(s) conducting the necropsy.

**Affiliation:** List the affiliation(s) of person(s) conducting the necropsy.

**Necropsy description:** Select the entry that best describes the examination:

**Complete examination:** All internal organs are present and recognizable.

**Partial examination:** Some internal organs are missing or cannot be recognized.

**Limited examination:** All internal organs are missing or unrecognizable.

**Disposition of carcass:** Select the option that describes what was done with the carcass following necropsy.

**Species:** Identify species based on distinguishing morphological characteristics. Select “unknown” if a confident identification cannot be made.

**CC:** *Caretta caretta* (loggerhead turtle)

**CM:** *Chelonia mydas* (green turtle)

**DC:** *Dermochelys coriacea* (leatherback turtle)

**LK:** *Lepidochelys kempii* (Kemp's ridley turtle)

**EI:** *Eretmochelys imbricata* (hawksbill turtle)

**LO:** *Lepidochelys olivacea* (olive ridley turtle)

**UNK:** Species not determined

**Sex:** Select the sex of the turtle based on examination of the gonads and/or identification of a phallus in maturing or adult males. Select "undetermined" if a confident identification cannot be made.

### **Explanation of Anatomic Location Codes and anomaly characteristic fields (shaded)**

This form provides a mechanism whereby anatomical locations of abnormalities and important features can be clearly and efficiently documented with the ability to record multiple concurrent observations in one individual sea turtle. Anatomic Location Codes provide one or two-letter abbreviations for different external locations on the body and regions of the alimentary tract (digestive system) and are entered into the blanks following an abnormality to note its location. For some abnormalities, there also are shaded fields that document important characteristics, such as those related to severity. Specific guidance for these entries is provided for the relevant sections below.

### **Cannot be Determined**

Multiple fields have the optional entry of Cannot Be Determined (CBD). CBD may be selected for any circumstance in which confident evaluation is not possible, including:

- limitations resulting from postmortem condition of the carcass (e.g., decomposition, scavenging;
- observer knowledge/experience.

## External injuries

Select whether there are any external injuries present. The emphasis here is external injuries of significance to sea turtle conservation and recovery based on potential association with the cause of stranding, an indication of human interaction, or implication on health and fitness. Minor, nonspecific injuries likely superficial abrasions, healed wounds involving the distal flippers or edges of the carapace, and injuries attributed to scavengers are not documented in this section, but may be described in the Comments field of this section.

If an injury is present, take wide vantage and close photographs with a scale, taking care not to cover or obscure the injury. Select the photos box to indicate that images were taken.

Next, check the box next to the injury type that best describes it according to the following definitions:

**1-Parallel chop wounds:** Two or more linear or curvilinear chop wounds that are parallel to one another (as caused by a watercraft propeller).

**2-Single/non-parallel chop wound:** A single distinct straight or curved chop wound.

**3-Blunt/crushing:** Depressing (crushing) or fractured bone and/or lacerated (tearing) skin.

**4-Amputation:** Loss of 50% or more of a flipper(s).

**5-Entangle-type:** This refers to depressions or wounds that partially or completely encircle the neck or appendages as caused when linear material becomes wrapped around part of the body.

**6-Penetrating:** A penetrating or perforating wound is deeper than it is wide. Penetrating wounds extend into tissues whereas perforating wounds pass all the way through the affected structure. In lay terms, they are often described as “holes” in a body part or tissues. Causes observed in sea turtles include wounds created by projectiles (firearms, spearguns), sharp manmade objects such as fish hooks and gaffs, and objects from nature such as fish bones, stingray barbs, and sea urchin spines

**7-Bite wound:** Wounds inflicted by marine or terrestrial predators. The most frequently encountered in sea turtles are shark bites that are characterized by sharply incised, deep scoring of bone and soft tissue, amputation or removal of body parts, and wounds created in a semicircular pattern



**8-Incised/mutilation:** These are wounds inflicted by humans and may occur under circumstances such as malicious injury, postmortem specimen collection, or butchery of turtles for meat. This category includes injuries that are cleanly incised as created by a knife or other sharp instrument.

**9-Other:** Any injury that may have been contributed to the cause of stranding, resulted from human interaction, or significantly compromised health and fitness and that has not been captured in previous entries is recorded in this field. This includes major chronic or healed injuries (e.g., loss of large portions of the shell, skeletal fractures) of uncertain cause.

After the appropriate injury type is selected, enter the Anatomic Location Code for the part of the body that is affected by the injury. For example, for a blunt injury involving the carapace (upper shell), “C” would be entered on the line following “Blunt/crushing”

Next, review the entries in the shaded area, select any that apply to the injury, and enter the number of the injury type on the associated line. For example, if a blunt/crushing injury was found to breach the coelom (body cavity) and had associated blood clots, these entries would be selected and “3” would be entered in the provided spaces as shown here.

If there are multiple types of abnormalities, this format allows for distinct characteristics to be assigned to specific injuries. For example, if the same turtle also had a partially healed entanglement wound involving the right front flipper, the entry would look like this:

Partial healing 5F

**External Injury Comments & External Diagram:** Add any additional details or clarifying information to clearly describe the observed injuries. The diagram may be used to show the specific locations of any injuries as well as wound measurements. Injury type numbers can be used for these notations.

**Dorsal and Ventral Photos:** Photos that clearly show all dorsal and ventral aspects of the carcass should be taken prior to internal examination. Select these boxes to indicate that these photos were taken.

### **Man-made Material (External)**

Note the presence or absence of any man-made material.

**Assoc with injury?** If material is observed and is associated with an injury that was described in the previous section, select this entry and note the injury type number in the provided field.

Select the type of man-made material that is present and enter the anatomical location codes where it is present on the associated line.

**If entangled, how many of wraps around body part, which part?** For entanglements, enter the number of times the material is wrapped around a body part and the appropriate anatomic location code. For entanglements involving multiple areas of the body, there are spaces for up to 5 different anatomic locations.

**If a ligature (entanglement-type) mark/wound present:** select the entry that most accurately describes the resulting injury.

**Description of Material:** Thoroughly describe the material. All anthropogenic material should be photographed with a scale. Note that photos were taken by selecting the box for this field.

**Disposition of Material:** Record whether the material was collected and its current location.

### **Other External Anomalies**

Note the presence or absence of any abnormal epibionts, marine leeches, or externally apparent disease conditions. Photograph any observations if present and affirm that an image was taken.

**Heavily encrusted w/ epibiota:** Select this entry if large areas of body are densely covered by barnacles or other anomalous accumulated epibionts.

**Leeches:** Indicate the presence of marine leeches in the genus *Ozobranchus*. If present, select which abundance best characterizes the number of eggs or adults:

**Few** - Small patches of eggs or less than 100 adults.

**Many** - Eggs cover large areas of the flippers or body or there are more than 100 adults

**Gooseneck barnacles:** Select this entry to indicate the presence of gooseneck barnacles (genus *Lepas*).

**FP (fibropapillomatosis):** Record the presence of any skin tumors that represent the classical manifestations of FP. Anatomic location codes for tumor locations are entered in the adjacent space. If tumors are present, note if they have a papillary surface, involve the eyes, or are present inside the mouth. Circle the relative score (1-3) that best describes the extent of tumor formation as described in NOAA Technical Memorandum NMFS-OPR-60.

**Ulceration/dermatitis:** This section is used to document inflammation/ulceration of the skin. Indicate if present and select whether the observation is characterized as superficial crusts and/or

ulcers that expose deep tissues. If present, select the extent of the lesions that best characterize their distribution as follows:

**Few/small** – involve less than 10% of an affected appendage or the shell or other anatomical area and do not include involvement of either cornea (the clear part of the eye).

**Large** - involve 10% or more of an affected appendage or the shell or other anatomical area, or include involvement of either cornea.

**Masses (non-FP or uncertain):** This selection is used to document any tumor-like growth involving the skin that does not have the features depicted in “fibropapilloma-like tumor.” This includes other types of tumors, which are rare in sea turtles, as well as abnormalities that likely are not true “tumors” (i.e., that are non-neoplastic), such as aberrant accumulations of scar tissue or inflammatory material (e.g., abscesses). The common feature is that the external appearance is a space-occupying mass that extends from or upheaves the skin but does not have the features of an FP tumor or it is not obviously associated with an identifiable injury.

**Other:** Use this entry to record any other type of anomaly not described by other fields that may have contributed to stranding or death or significantly affected health and fitness. An example of anomalies recorded here is major congenital deformities.

**Other External Anomalies Comments:** Provide any additional details on entries for this section, including information on the nature of any entries as “Other.”

## **Internal examination**

**Muscle status:** Select the characteristics that best describe the condition of skeletal muscle.

**Fat status:** Select the characteristics that best describe the condition of body fat. Standard necropsy photos show the ventral aspect of the carcass with the plastron removed to display the condition of the pectoral muscles and body fat, as well as close-up images, as necessary. Use the check box to indicate that this photo(s) was taken.

**Musculoskeletal:** Select whether the musculoskeletal system (muscle, bones, joints, and related tissues) was examined and all entries that best describe these observations. Provide any additional detail in the Findings/Comments section.

**Coelom:** Indicate whether the coelom (body cavity) could be examined. Determine the fluid volume in milliliters and indicate whether the value provided is measured (actual) or estimated.

Select all entries that best describe any observations and provide any additional details in the space below.

**Internal FP:** Select this box if tumors indicative of internal manifestations of fibropapillomatosis. List the location(s) and number of tumors, their sizes, and any significant related observations in the space provided (4 page form) or under the appropriate organ system (2 page form).

**Heart and major vessels:** Select whether the cardiovascular system was examined. Note whether there is blood within the heart chambers (absence can indicate substantial blood loss and other forms of anemia). Choose any entries that describe findings within this system and write any details in the provided space.

**Liver and gallbladder:** Complete as for the other organ systems.

**Alimentary tract:** This section records any observations related to the tubular portion of the digestive system, from the mouth to the cloaca. First enter whether the alimentary tract was examined. If one or more segments are missing, select “examined,” but not which area(s) is missing in the Findings/Comments field.

**Mouth examined:** Confirm that the inside of the mouth was evaluated.

**General entries:** In the next line, select whether any abnormality(ies) was observed and whether any ingested fish or penaeid shrimp were found.

**Specific abnormalities:** This section is completely similar to the External Injuries section. The appropriate numbered abnormality is selected and the Anatomical Location Code is entered into the associated blank. The extent of the finding is selected based on the percentage involvement that most accurately describes the abnormality and the corresponding number is provided in the adjacent space. Here is an example:

-----  
**GI TRACT:**  No findings  Abnormal  Ingested fish  Ingested shrimp  CBD  Mouth examined?  
 10-Ulcers/exudate Co  11-Trauma/perforation  12- Obstruction/blockage  13-Intussusception  
 14-Plication  15-Fluke eggs  16-Other  
 <5% affected  5-25%  >25-50% 10  >50%  N/A

**Man-made material (internal):** Indicate whether any anthropogenic material was found within the alimentary tract. If present, also indicate whether it was associated with any injury and note the numeric entry for that injury type in the provided space. Select the type of man-made material that best fits the finding. All man-made material should be photographed with a scale; indicate that images were collected using the provided checkbox and indicate whether the material was saved. Lastly, describe what was done with the material and provide any additional

detail, including measurements, under Findings/Comments. Here is an example of a completed entry for this section (sea turtle with ingested fishing line resulting in plication of the intestine):

-----  
**GI TRACT:**  No findings  Abnormal  Ingested fish  Ingested shrimp  CBD  Mouth examined?  
 10-Ulcers/exudate  11-Trauma/perforation  12- Obstruction/blockage  13-Intussusception  
 14-Plication  15-Fluke eggs  16-Other  
 <5% affected  5-25%  >25-50%  >50%  14  N/A  
**MAN-MADE MATERIAL:**  Y  N  Assoc with injury? If yes, enter the number(s) here: 14 (e.g., 14)  Saved?  PHOTO:  
 w/ scale

Alimentary tract contents: Indicate the contents of the different regions of the alimentary tract (mouth, esophagus, stomach, intestine). List the contents as specifically as possible and include a note of relative volume (e.g., “full,” partially filled,” “abundant”) or estimate a percentage (e.g., 20% filled).

**Spleen and Pancreas, Urogenital, Respiratory, Central Nervous System:** Select whether each organ system was examined and indicate all pertinent findings as for the previous section. Provide any additional detail in the Findings/Comments section. Note that the sex on page 1 should be completed based on evaluation of the gonads. Additional information about characteristics of the gonads is entered depending on whether the turtle is male or female (if determined).

**Summary Comment Section**

Use this section to provide any additional description or detail of observations that either would not fit within previous sections or was not otherwise recorded. Provide a concise numbered summary of findings that includes any major anomalies, nutritional condition, and a summary of digestive contents. Here are some examples:

- 1. Parallel chop wounds with blood clots; 2. Partial atrophy of fat; 3. Crab shell in stomach and intestine
- 1. No injuries; 2. Abundant fat; 3. Fish within stomach, gastropods in intestine
- 1. Heavily encrusted by epibiota; 2. Severe atrophy of fat; 3. Ulcerated colon (70%)

**Specimen Collection Inventory**

Enter information about any samples or specimens collected from the sea turtle within this section.

**DATE FOUND:** Month \_\_\_\_\_ Day \_\_\_\_\_ Year 20\_\_\_\_ **COUNTY FOUND:** \_\_\_\_\_

**SPECIFIC LOCATION FOUND:** \_\_\_\_\_

<b>SPECIES: (Check one.)</b> <input type="checkbox"/> Loggerhead <input type="checkbox"/> Green Turtle <input type="checkbox"/> Hawksbill <input type="checkbox"/> Kemp's Ridley	<b>CONDITION AT INTAKE: (Check one.)</b> <input type="checkbox"/> Responsive <input type="checkbox"/> Unresponsive  <b>PHOTO TAKEN?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO	<b>FIBROPAPILLOMA? (Check one.)</b> <input type="checkbox"/> Yes (If yes, please fill out back of this sheet.) <input type="checkbox"/> No  <b>RECORDER NAME:</b> _____
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<b>EXISTING FLIPPER TAG(S)?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b>NEW FLIPPER TAG(S) APPLIED?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO (When recording tag numbers below, circle E for existing tag and N for new tag. Also, please note if an existing tag was removed. Positions refer to the placement of the tag in one of the first three trailing scales beginning at the body.)	<div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto; text-align: center; font-size: 8px;">                     PLACE PIT TAG HERE                 </div>
<b>TAG # (LEFT) Existing (E) or New (N)</b> _____ <b>POSITION:</b> 1   2   3	<b>TAG # (RIGHT) Existing (E) or New (N)</b> _____ <b>POSITION:</b> 1   2   3
<b>PIT TAG ALREADY PRESENT?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b>PIT LOCATION:</b> RF    LF    RR    LR	
<b>PIT TAG NUMBER:</b> _____ (If PIT tag applied, please also put sticker in the box above.)	

(* <b>Only if</b> calipers are available.) <b>*Straight Carapace Length</b> (notch to notch) _____ cm	(** <b>Only if</b> calipers are <b>not</b> available.) <b>**Curved Carapace Length</b> (notch to notch) _____ cm
<b>Flipper Damage?</b> <input type="checkbox"/> NO <input type="checkbox"/> YES If yes, describe: _____ _____	
<b>Carapace Damage?</b> <input type="checkbox"/> NO <input type="checkbox"/> YES If yes, describe: _____ _____	

<b>SAMPLES TAKEN (Check all that apply.)</b>	
GENETIC TISSUE SAMPLE <input type="checkbox"/>	STABLE ISOTOPE TISSUE SAMPLE <input type="checkbox"/>
OTHER <input type="checkbox"/> Describe: _____	

<b>FATE OF TURTLE</b>	
<b>FOUND DEAD/NEVER RESPONSIVE</b> <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, disposition of carcass: _____	
<b>TAKEN TO HOLDING FACILITY?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b>DATE TAKEN:</b> Month <input type="checkbox"/> <input type="checkbox"/> Day <input type="checkbox"/> <input type="checkbox"/> Year 20 <input type="checkbox"/> <input type="checkbox"/>	
<b>Name of Facility (also note any subsequent transfers):</b> _____	
<b>DIED AT HOLDING FACILITY?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, disposition of carcass: _____	
<b>RELEASED?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b>RELEASE DATE:</b> Month <input type="checkbox"/> <input type="checkbox"/> Day <input type="checkbox"/> <input type="checkbox"/> Year 20 <input type="checkbox"/> <input type="checkbox"/>	
<b>Release Location:</b> _____	

**OTHER NOTES:** \_\_\_\_\_

# **GREEN TURTLE COLD STUNNING DATA COLLECTION FORM (BATCHED)\***

*\*All other species must be documented separately on an individual STSSN form*

<b>OBSERVER'S NAME / ADDRESS / PHONE</b> First _____ M.I. _____ Last _____ Affiliation _____ Address _____ Area code/Phone number _____	<b>STRANDING DATE:</b> Year 20__ __ Month __ __ Day __ __ ----- <b>State coordinator must be notified within 24 hrs;</b> <b>this was done by:</b> <input type="checkbox"/> phone (361)949-8173 x226 <input type="checkbox"/> email <input type="checkbox"/> fax (361)949-9134
---	--

**STRANDING INFORMATION:**  
County \_\_\_\_\_  
Descriptive location (be specific) \_\_\_\_\_  
Latitude: \_\_\_\_\_ Longitude \_\_\_\_\_ (if available)

**TAGS: Contact state coordinator before disposing of any tagged animal!!**

Checked for PIT tags?  Yes  No

PIT tags present?  Yes\*  No  
*\*Tagged turtles are to be documented separately on an individual STSSN form.*

Photos taken of all turtles?  Yes  No

**CONDITION AT INTAKE:**

Number alive:  
(No FP) # \_\_\_\_\_  
(FP) # \_\_\_\_\_

Number dead:  
(No FP) # \_\_\_\_\_  
(FP) # \_\_\_\_\_

Total # \_\_\_\_\_

**CARAPACE MEASUREMENTS:**

**Random Sample of Straight Length (SCL) Measurements (NOTCH-TIP):**

How were Measurements Taken?  Calipers  Measuring Tape

SCL: _____ cm	SCL: _____ cm	SCL: _____ cm	SCL: _____ cm
SCL: _____ cm	SCL: _____ cm	SCL: _____ cm	SCL: _____ cm
SCL: _____ cm	SCL: _____ cm	SCL: _____ cm	SCL: _____ cm
SCL: _____ cm	SCL: _____ cm	SCL: _____ cm	SCL: _____ cm
SCL: _____ cm	SCL: _____ cm	SCL: _____ cm	SCL: _____ cm

**FINAL DISPOSITION:**

Found alive, taken to rehab # \_\_\_\_\_  
Name of Facility(s) (also note any subsequent transfers): \_\_\_\_\_

Found alive, but died prior to transport to rehab # \_\_\_\_\_  
Disposition of Carcasses: \_\_\_\_\_

Found dead # \_\_\_\_\_  
Disposition of Carcasses: \_\_\_\_\_

**OTHER NOTES:**



## Sea Turtle Hook & Line Incidental Capture Intake Form

(To be filled out by the responding STSSN participant)

STSSN ID #: \_\_\_\_\_ Capture Location: \_\_\_\_\_ DATE: \_\_\_\_\_

- 1) Where was angler fishing?**    S) Shore            B) Boat            P) Pier            U) Unknown
- 2) What was angler fishing for?** (select up to 2, if >2 choose: A) Anything) **(Regionally specific species)**  
 A) Anything    B) Catfish            C) Croaker            D) Drum (Red/Redfish/Black)            E) Flounder  
 F) Ground mullet/Whiting            G) Mackerel (King/Spanish)            H) Trout            I) Shark  
 O) Other: \_\_\_\_\_            U) Unknown
- 3) Bait used:**    DS) Dead shrimp    LS) Live shrimp    S) Squid    C) Crab    A) Artificial  
 WL) Whole live fish: \_\_\_\_\_            WD) Whole dead fish: \_\_\_\_\_  
 CB) Cut bait/fish: \_\_\_\_\_            O) Other: \_\_\_\_\_            U) Unknown
- 4) Hook Type:**    C) Circle            T) Treble            J) J            K) Kahle            U) Undetermined  
**5) Select best answer:**    O) Offset            I) Inline            U) Undetermined    N) NA
- 6) Is the hook barbless?**            N) No            Y) Yes
- 7) What is the hook Total Length (mm)?** (Measure length from top of hook to bottom) \_\_\_\_\_ mm
- 8) What is the Gape (mm)?** (Measure gape from tip of the point to the inside of the shank) \_\_\_\_\_ mm
- 9) Interaction type:**  
 H) Hooked            E) Entangled            HE) Hooked & entangled            U) Unknown  
 O) Other: \_\_\_\_\_
- 10) Hook/Gear Location:**  
 a) External – E) Hooked anywhere on the body, flippers or head  
     External location: \_\_\_\_\_  
 b) Inside mouth – Hook still visible  
     B) Beak    T) Tongue    G) Glottis    R) Roof of mouth    O) Other mouth tissue    E) Esophagus  
 c) Swallowed – S) Hook is NOT visible; (note internal location, if known)  
     Internal location: \_\_\_\_\_  
 d) Unknown - U) Hook location is not known
- 11) If turtle was released by the angler, was the hook and all line removed?**    YES    NO    NA
- 12) If no, estimated amount of line remaining on turtle (inches)** \_\_\_\_\_
- 13) How was the hook removed?** A) Angler removed    I) Instrument \_\_\_\_\_  
 S) Surgery required    M) Not removed, monitored for passage    N) Not removed before release
- 14) Were any other hooks observed (either on radiograph or visually)?**    YES    NO    Unknown  
 If yes, answer questions on next page for each additional hook.

**Additional Comments:** \_\_\_\_\_

**\*If possible, please take photos of the gear interaction before removing the gear, collect the fishing gear and contact your State Coordinator for instructions on disposition of gear. Submit this form along with your STSSN form to your State Coordinator.**

### Sea Turtle Hook & Line Incidental Capture Intake Form Additional Hooks

STSSN ID #: \_\_\_\_\_

**Hook #:** \_\_\_\_\_

**15) Hook Type:** C) Circle T) Treble J) J K) Kahle U) Undetermined  
**16) Select best answer:** O) Offset I) Inline U) Undetermined N) NA

**17) Is the hook barbless?** N) No Y) Yes

**18) What is the hook Total Length (mm)?** (Measure length from top of hook to bottom) \_\_\_\_\_ mm

**19) What is the Gape (mm)?** (Measure gape from tip of the point to the inside of the shaft) \_\_\_\_\_ mm

**20) Hook/Gear Location:**

- a) External – E) Hooked anywhere on the body, flippers or head  
External location: \_\_\_\_\_
- b) Inside mouth – Hook still visible  
B) Beak T) Tongue G) Glottis R) Roof of mouth O) Other mouth tissue E) Esophagus
- c) Swallowed – S) Hook is NOT visible; (note internal location, if known)  
Internal location: \_\_\_\_\_
- d) Unknown - U) Hook location is not known

**Hook #:** \_\_\_\_\_

**21) Hook Type:** C) Circle T) Treble J) J K) Kahle U) Undetermined  
**22) Select best answer:** O) Offset I) Inline U) Undetermined N) NA

**23) Is the hook barbless?** N) No Y) Yes

**24) What is the hook Total Length (mm)?** (Measure length from top of hook to bottom) \_\_\_\_\_ mm

**25) What is the Gape (mm)?** (Measure gape from tip of the point to the inside of the shaft) \_\_\_\_\_ mm

**26) Hook/Gear Location:**

- a) External – E) Hooked anywhere on the body, flippers or head  
External location: \_\_\_\_\_
- b) Inside mouth – Hook still visible  
B) Beak T) Tongue G) Glottis R) Roof of mouth O) Other mouth tissue E) Esophagus
- c) Swallowed – S) Hook is NOT visible; (note internal location, if known)  
Internal location: \_\_\_\_\_
- d) Unknown - U) Hook location is not known

**Additional Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PRA STATEMENT**  
**Recreational Angler Survey of Sea Turtle Interactions**  
**OMB Control Number: 0648-0774**  
**Expiration Date: 12/31/2024**

**A. SURVEY JUSTIFICATION**

Collection of these data on sea turtle interactions in the pier-based recreational fishing sector is necessary to fulfill statutory requirements of the Endangered Species Act (16 U.S.C. 1531 et. seq.) Section 7 analyses, and will provide necessary data for the conservation and recovery of endangered and threatened sea turtle populations.

**B. SURVEY PURPOSE**

The sea turtle interaction data that will be collected via this survey collection will be used by NOAA Fisheries protected species managers to evaluate the impacts of recreational fishing on sea turtle populations. Analysis of data collected from this survey will be used in agency documents, such as ESA Section 7 Biological Opinions and other regulatory documents. These documents are disseminated to the public, but the raw survey results will not be disseminated to the public. NOAA Fisheries will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information.

**C. PUBLIC BURDEN**

Public reporting burden for this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Wendy Piniak, NOAA Fisheries, Office of Protected Resources, [wendy.piniak@noaa.gov](mailto:wendy.piniak@noaa.gov).

**D. PUBLIC PARTICIPATION**

Participation in this survey is voluntary. The information collected will be protected and kept anonymous if released. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

## Sea Turtle Hook & Line Incidental Capture Intake Form Instructions

**Introduction:** All sea turtles in United States waters are listed as threatened or endangered under the Endangered Species Act (ESA). When sea turtle distribution overlaps with commercial and recreational fishing effort, sea turtles may be accidentally captured in the fishing gear. For commercial fisheries, observers are often placed on vessels to better understand these interactions. These observations provide insight into how and why these interactions occur and the impact of the interactions on sea turtle populations. In contrast, recreational fishing often occurs from shore, piers, and private vessels making traditional observer coverage challenging. Therefore, alternative data collection methods must be considered. NOAA Fisheries will use this information to gain similar insights into recreational fishing interactions and impacts. Pier is used as a general term, and the form can be used for recreational fishing interactions on any fishing structure (e.g., jetty, pier, boat, shore).

**Angler Interview:** Questions 1 – 3 should be asked of the angler by the sea turtle stranding responder. If the angler is not available, please answer as many questions as possible.

- 1) **Where was angler fishing?** Circle location from choices given. Beach includes beaches, bulkheads and anything that is parallel to the shoreline and does NOT extend out over the water. Pier includes any structures that extend over the water such as piers, docks, etc.
- 2) **What was angler fishing for?** Select up to two target species. If angler names >2 species, choose: *Anything*. Species are region specific.
- 3) **Bait used:** Circle bait type used. If using whole or cut fish circle appropriate choice, record species if possible.

**Gear Information:** Questions 4 – 8 may be asked of the angler by the sea turtle stranding responder or recorded at the rehabilitation facility. If possible, try and collect the fishing gear. If the angler will not provide the gear, record the information on site. If the angler is not available, please answer as many questions as possible. Please use calipers to measure the hook.

- 4) **Hook type used:** Identify type of hook used based on examples and descriptions below.



**Circle hook**



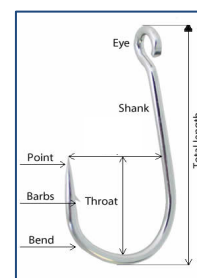
**Treble hook**



**J-hook**

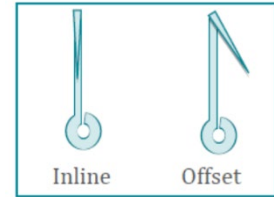


**Kahle hook**



- **Circle hook:** only hook with the tip curved back towards the shank at a 90° angle.
- **Treble hook:** consists of three hooks with a single eye, often used with artificial lures.
- **J-hook:** the shank is straight and resembles the letter “J” and the point and barb do not point toward the shank.
- **Kahle hook:** curved back in an oval shape with the hook point pointed toward the hook eye; distance between the point and the shank is much greater than on a circle hook.

- 5) **Record if the hook is Inline, Offset, Undetermined or Not Applicable (NA).** On an offset hook, the tip of the hook is not in line with the eye. The degree of offset can vary.
- 6) **Is the hook barbless?** Circle no or yes.
- 7) **What is the hook Total Length (mm):** measure the total length from the top of the eye to the bottom of the hook, as shown on page 1.  
A metric vernier caliper is recommended for recording hook measurements.
- 8) **What is the Gape (mm)?** Measure the Gape from the tip of the point to the inside of the shank, as shown on page 1.



**Interaction Information:** Questions 9 – 14 may be recorded by the sea turtle stranding responder and/or the rehabilitation facility staff depending on the type of hooking and gear location. If possible, please take photos of the gear interaction before removing the gear.

- 9) **Interaction type:** select the appropriate type of interaction between the sea turtle and the fishing gear.
- 10) **Hook/Gear Location:** select the answer that describes the location of the gear. If the hook is NOT visible inside the mouth it is considered swallowed.
- 11) **If turtle was released by the angler, was the hook and all line removed?** Select answer.
- 12) **If no, amount of line remaining on turtle (inches) \_\_\_\_\_.** Ask angler to estimate how much line was still attached to the hook when the line was cut.
- 13) **Hook Removal:** select the answer(s) that describe how the hook was removed. If an instrument was used, write what type in the blank. If an angler used an instrument select BOTH A) and I). If the hook was not removed, was it monitored for passage or was the animal released with the hook still in place?
- 14) **Were any other hooks observed (either on radiograph or visually)?** If additional hooks are observed, please answer the questions describing hook type, size and location for each additional hook in the animal.

**Additional Comments:** Please include any additional comments regarding the interaction that were not already recorded.

**Questions 15 – 26 are only answered if additional hooks are observed.**

**\*If possible, please take photos of the gear interaction before removing the gear. Please collect the fishing gear and contact your State Coordinator for instructions on disposition of gear. Submit this form along with your STSSN form to your State Coordinator.**



# SEA TURTLE ENTANGLEMENT REPORT FORM

OMB Control No. 0648-0496; Exp Date: 09/30/2023

FIELD #: \_\_\_\_\_

Shaded area for NOAA Fisheries Service (NMFS) use only **EVENT CONFIRMATION:**  Confirmed  Probable  Not confirmed

**INITIAL OBSERVATION:** Observer name: \_\_\_\_\_ Phone: \_\_\_\_\_

Observer affiliation: \_\_\_\_\_

Observation date: \_\_\_\_\_ (mm / dd / yyyy) Time: \_\_\_\_\_  am  pm

Turtle condition:  Alive  Fresh dead  Moderately decomposed  Severely decomposed  Dried carcass  Skeleton  Unknown

**EXAMINATION / RESPONSE:** Responder name: \_\_\_\_\_ Phone: \_\_\_\_\_

Responder affiliation: \_\_\_\_\_

Response date: \_\_\_\_\_ mm / dd / yyyy) Time responder arrived on scene: \_\_\_\_\_  am  pm

Turtle condition:  Alive  Fresh dead  Moderately decomposed  Severely decomposed  Dried carcass  Skeleton  Unknown

**PHOTO DOCUMENTATION:** Photos taken:  Yes  No Video taken:  Yes  No

Documentation of:  Turtle in gear  Injuries / entanglement site  Buoy colors, numbers and any other identifiable feature(s)

**LOCATION:** State: \_\_\_\_\_ County: \_\_\_\_\_ Nearest port / town: \_\_\_\_\_

Locality details: \_\_\_\_\_ Stranded ashore:  Yes  No

Latitude: \_\_\_\_\_ N Longitude: \_\_\_\_\_ W

**TURTLE DATA:** Species or description: \_\_\_\_\_

Straight carapace length:\*\* \_\_\_\_\_  cm  in  actual  est.

Sex:  Male  Female  Not examined  CBD

Curved carapace length:\*\* \_\_\_\_\_  cm  in  actual  est.

Does tail extend beyond carapace?  Yes  No

\*\*Carapace length is measured from nuchal notch to posterior tip (see diagram in instructions)

If Yes, how far? \_\_\_\_\_  cm  in  actual  est.

Weight: \_\_\_\_\_  kg  lb  actual  est.

Sex determined by:  Necropsy  Tail length (adults only)  N/A

**GEAR TYPE:** Indicate the primary (in contact with turtle) entangling gear with a "P" and secondary gear with an "S". Fill out all applicable details.

**Vertical Line with Surface Buoy**

Line attached to bottom gear:  Yes  No If Yes, bottom gear:  Pot(s)  Net  Unknown  Other: \_\_\_\_\_

Length of line between turtle and surface buoy: \_\_\_\_\_  cm  in  actual  est.

**Line Only (no buoy)**

Type:  Monofilament  Multifilament (e.g. nylon or poly rope)  Unknown

Hook(s) present:  Yes  No If Yes, where attached to turtle:  Not attached  Mouth  Ingested (past mouth)  Soft tissue (not mouth)

Line attached to bottom gear :  Yes  No If Yes, bottom gear:  Pot(s)  Net  Unknown  Other: \_\_\_\_\_

**Net**

Type:  Monofilament  Multifilament (e.g. nylon)  Unknown

**Fish Trap (pound net / weir)**

Location:  Free-swimming in trap  Entangled in leader  Entangled in trap  Other describe in Additional Remarks

**Other** Describe: \_\_\_\_\_

**GEAR DETAILS:**

**Net** Estimated stretched mesh size: \_\_\_\_\_  cm  in ID number(s): \_\_\_\_\_

**Pot(s)** Number of pots: \_\_\_\_\_ ID Number(s): \_\_\_\_\_ Pot description: \_\_\_\_\_

**Buoy(s)** Number of buoys: \_\_\_\_\_

	Buoy 1	Buoy 2	Buoy 3
Type	_____	_____	_____
Color/Pattern	_____	_____	_____
ID Number(s) / Letter(s)	_____	_____	_____

**Line(s)**

Number of lines: \_\_\_\_\_ Color 1: \_\_\_\_\_ Color 2: \_\_\_\_\_ Color 3: \_\_\_\_\_

Biofouling present on gear:  Yes  No If Yes, % of visible gear covered by biofouling: \_\_\_\_\_ % describe type of biofouling in Additional Remarks

Gear retrieved:  Yes- all  Yes- partially  No If Yes, disposition:  Initial observer  STDN member  State agency  NMFS Gear Team

**DISENTANGLEMENT OUTCOME (LIVE animals):** Check one

Disentangled released  Entangled / no action taken  Relocated to: \_\_\_\_\_

Partially disentangled released. Gear left: \_\_\_\_\_  Entangled / not relocated  Euthanized

Collected for treatment at: \_\_\_\_\_  Lost during disentanglement  Other: \_\_\_\_\_

**CARCASS / SAMPLE DISPOSITION (DEAD animals):** Check all that apply

Left at site  Necropsied  Biopsied

Towed ashore  Scientific collection  Other: \_\_\_\_\_

Buried  Off beach  On beach  Educational collection  Unknown

**TAG / MARK DATA:** Checked for flipper tags:  Yes  No Scanned for PIT tags:  Yes  No

Tag / mark type	Numbers	Location on animal	Applied	Present
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>

**ENTANGLEMENT / WOUND DESCRIPTION:** Use table below to describe the entanglement configuration and any wounds associated with the entanglement site. Check all that apply. Note the specific location, # wraps, partial or complete circumference, tight vs. loose, if gear left at that location, etc.).

Body area involved	Movement impaired	Indentation	Skin abraded	Muscle exposed	Bone exposed	Swelling	Discoloration	Tissue necrotic/sloughing
<input type="checkbox"/> Head / neck Description:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Front flippers Description:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Carapace / plastron Description:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Rear flippers Description:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**BEHAVIORAL OBSERVATIONS**

**Response to Approach and Handling:** Check one.

Vigorous movement       Movement slow, sluggish, or weak       Unconscious / Unresponsive       Could not evaluate

**Response Upon Release:** Check one from each row below.

Vigorous movement       Movement slow, sluggish, or weak       Movements abnormal (e.g. uncoordinated, circling, listing)       Could not evaluate

Dives and/or swims away within 1 minute       Remains at surface and/or does not swim deliberately away within 1 minute

**Describe Behavior:**

**EVENT SUMMARY AND ADDITIONAL REMARKS:**

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**DISCLAIMER**

The collection of information on sea turtle entanglement is necessary to ensure sea turtles are being conserved and protected, as mandated by the Endangered Species Act of 1973, as amended. This collection contributes invaluable data to management efforts. A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0648-0496. Without this approval, we could not conduct this information collection. Public reporting for this information collection is estimated to be approximately one hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to NMFS, GARFO, Protected Resources Division, 55 Great Republic Drive, Gloucester, MA, 01930.



## Northeast Region Sea Turtle Disentanglement Network Instructions for Completing the Sea Turtle Entanglement Report Form

**FIELD #:** Indicate the field number given to the animal / event by the response organization. This number should be a unique identifier. It is possible for more than one agency to respond to an individual animal, in which case a single event may have more than one field number.

**EVENT CONFIRMATION:** NMFS will determine if an event was confirmed, probable, or not confirmed. Please leave this section blank.

**INITIAL OBSERVATION:** The initial observation is the first time the entangled turtle was sighted. The observer is the individual who encountered the entangled turtle first-hand and reported it to the Sea Turtle Disentanglement Network (STDN) or NMFS either directly or through another individual or agency.

- **Observer name and phone number:** Record the full name and contact phone number for the initial observer. If the report was relayed to the STDN by an intermediate source, do not put the intermediate source as the initial observer.
- **Observer affiliation:** Record the affiliation, if applicable, for the initial observer. If no affiliation, please indicate a general description of the initial observer (e.g., recreational boater, commercial fisherman, etc.).
- **Observation date and time:** Record the full date and time of the initial observation, i.e., the time the animal was actually sighted. This is *not* the date and time of the report, i.e., when the initial observer contacted the STDN or NMFS.
- **Turtle condition:** Check the box for the condition code that best describes the turtle during the initial observation. If the turtle was dead and seemed intermediate between two codes, choose the most appropriate option. Fresh dead turtles should have no foul smell; moderately decomposed turtles have a foul smell, but skin and scutes are intact or only beginning to peel, internal organs are still distinguishable; severely decomposed turtles have scutes lifting or gone and skin beginning to peel or liquefy, with hard to distinguish internal organs; dried carcasses are leathery, with internal organs completely decomposed. If uncertain about the condition check unknown and provide a description of the turtle's condition in Event Summary and Additional Remarks (herein Additional Remarks) on back.

**EXAMINATION / RESPONSE:** The responder is the person who examined, handled, disentangled and/or collected data on the turtle in the field or attempted to do so.

- **Responder name and phone number:** Record the full name and contact phone number for the responder. The responder may be the initial observer if the initial observer also disentangled the turtle, either on their own or with direction from the STDN.
- **Responder affiliation:** Record the affiliation of the responder.
- **Response date and time responder arrived on scene:** Please record the full date and time when the response team arrived on scene, i.e., the disentanglement or examination was initiated.
- **Turtle condition:** Check the box for the condition code that best describes the turtle when the response team arrived on scene. See Turtle Condition above for more details.

### **PHOTO DOCUMENTATION:**

- **Photos taken:** Please indicate if photos were taken. All photos should be sent to NMFS at the same time as submission of the STERF.
- **Video taken:** Please indicate if video was taken. All video should be sent to NMFS at the same time as submission of the STERF. Documentation of turtle behavior through video is invaluable in post interaction mortality determination.
- **Documentation:** The following list indicates the photos that should be taken during each entanglement event. Please check the appropriate boxes to indicate that these photos were taken.
  - The sea turtle in the entangling gear, showing overall gear configuration and confirming species;
  - Close-ups of the entanglement site(s), showing any injuries and detailed gear configuration; and
  - Any identifiable features of the gear, e.g., buoy color, tags and/or numbers.

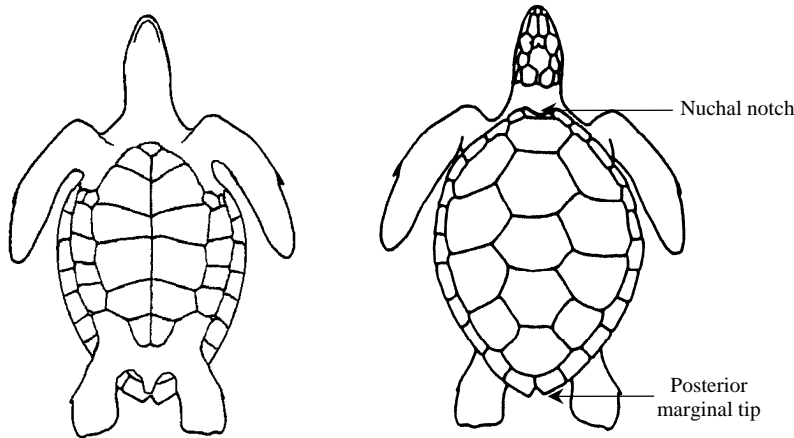
**LOCATION:** Fill in all fields in this section.

- **State:** Provide the two letter abbreviation for the state where the entanglement occurred. If the entanglement occurred in the EEZ, outside the three-mile boundary of state waters, indicate the closest state to the entanglement location.
- **County:** Indicate the county where the entanglement occurred. If the entanglement occurred in the EEZ, indicate EEZ waters.

- **Nearest port / town:** Indicate the nearest port or town.
- **Locality details:** Include a general description of the event location, including proximity to land. Please only reference places that can be readily found on maps; do not use “local” names.
- **Stranded ashore:** Please check “yes” if the animal stranded on land naturally. Please check “no” if the animal was in the water and was not brought to shore *or* if the animal was collected from the water and brought to a rehab or necropsy facility. If this was the case, make sure you indicate that the animal was collected for treatment or necropsy under Disentanglement Outcome or Carcass Disposition.
- **Latitude and longitude:** Make every effort to collect the GPS location for all entanglement events. Provide latitude / longitude in decimal degrees (e.g., 42.5321°N). If you are given Loran units by the initial observer, please convert it to latitude / longitude, but also provide the original Loran numbers.

**TURTLE DATA:**

- **Species or description:** Record the turtle species only if *definitively* identified by a trained responder or photo documentation. If species is unknown or not confirmed by one of the two above methods, please provide a description of the turtle (including features such as coloration and number of vertebral and/or costal scutes). Every effort should be made to take photos of the turtle for species verification. Photos of the carapace and head are most useful. If you are unsure about the species ID, take several photos from different angles. Do not guess. Please contact NMFS if you need sea turtle identification materials.
- **Straight carapace length:** Straight carapace length is measured using calipers from the nuchal notch to the posterior marginal tip (see drawing below). Indicate whether measurement is in inches or centimeters and whether it is actual or estimated. Please indicate that length is an estimate if the reporting party provides a total length rather than a carapace length.



- **Curved carapace length:** Curved carapace length is measured using a soft tape measure from the nuchal notch to the posterior tip, following the curvature of the dorsal centerline.
- **Weight:** Indicate the turtle’s weight, as well as whether weight is in kilograms or pounds and whether it is actual or estimated. Please leave blank if unsure.
- **Sex:** Check whether the turtle was male or female; check unknown if you are unsure. Immature sea turtles cannot be sexed externally, so please check unknown if dealing with a live immature turtle. Adult male turtles have a tail that extends well beyond the posterior tip of the carapace. Check whether the tail extends beyond the carapace. If you document a turtle with a long tail, please measure the length of the tail beyond the carapace and record the measurement. Please be aware that juvenile males may not show this characteristic; therefore, if unsure about the age class of the animal, do not use tail length for sex determination. Indicate how sex was determined; if sex was marked unknown, check N/A in this field.

**GEAR TYPE:** Please indicate the primary entangling gear by putting a “P” in the space next to the appropriate gear type. Primary entangling gear is that which was *in direct contact with* the turtle. There can be more than one set and/or type of primary gear. Please indicate any secondary gear by putting an “S” in the space next to the appropriate gear type. Secondary gear is any gear that was present, but *not* in direct contact with the turtle. For example, if a turtle was entangled in vertical line, which itself was tangled with monofilament, you would put a “P” next to Vertical Line with Surface Buoy and an “S” next to Line Only and check Monofilament.

- **Vertical Line with Surface Buoy:** Indicate this gear type if the entangling gear included line and a surface buoy. Check whether or not the buoy and line were attached to gear on the bottom, meaning that the line was attached to something heavy below the surface. If yes, indicate whether it was weighted by a pot, net, other item (please

describe), or it is unknown. Indicate the length of line between the turtle (i.e., the entanglement site) and the surface buoy, as well as whether this length is in centimeters or inches and whether it is actual or estimated.

- **Line Only (no buoy):** Indicate this option if the entangling gear was only an expanse of line with no buoys attached. Check whether the line was monofilament, multifilament (such as nylon or polypropylene rope), or unknown. Check whether there was a hook(s) associated with the entangling line and, if so, if and where it was attached to the turtle. As above, check whether or not the buoy and line were attached to gear on the bottom, meaning that the line was attached to something heavy below the surface. If yes, indicate whether it was weighted by a pot, net, other item (please describe), or it is unknown.
- **Net:** Indicate this option if the entangling gear was netting or mesh. Check whether the net was monofilament (e.g., gillnet) or multifilament (e.g., nylon or poly mesh as in a trawl net). *NOTE: If turtle was entangled in the vertical line of a gill net, you should check Vertical Line with Surface Buoy and then indicate that the gear was weighted with a net.*
- **Fish Trap (pound net / weir):** Indicate this gear type if the turtle was caught in any part of a fish trap. Check whether the turtle was free-swimming in the trap, entangled in the trap leader, entangled in the trap, or other. If other, please describe nature of the interaction in Additional Remarks.
- **Other:** Indicate this option if the entangling gear did not fit into any of the above categories. Describe the gear as much as possible; continue in Additional Remarks, if necessary.

**GEAR DETAILS:** Record any of the applicable gear details.

- **Net**
  - Estimated stretched mesh size: Record the length between opposite corners / knots of the mesh when pulled taut, as well as whether this measurement is in centimeters or inches.
  - ID number(s): Document any net numbers that were present.
- **Pot(s)**
  - Number: Provide the number of pots involved with the entanglement, with as specific information as possible. If there was a pot trawl, but the exact number of pots is unknown, write ">1" or "trawl".
  - ID Number(s): Document any pot numbers that were present.
  - Pot description: If pot is pulled up for examination, describe the size, shape, and other characteristics.
- **Buoy(s)**
  - Number: Record the number of buoys associated with the entanglement.
  - Space is available to provide additional buoy information for up to three buoys. Provide any further information in Additional Remarks.
    - Type: Please specify the buoy shape: Bullet, Acorn, Round, Polyball, Other. Also note whether it is a single or double buoy (Double Bullet, Double Acorn, or Bullet/Acorn) and whether there is a stick, flag, and/or radar reflector present on the buoy(s).
    - Color/Pattern: Please provide an overall description of the buoy coloration / pattern, in particular noting the color on the bottom (side attached to the vertical line) of the buoy.
    - ID Number(s) / Letter(s): Please record the ID number(s) / letter(s) on the buoy.
- **Line(s)**
  - Number: Provide the number of different lines involved in the entanglement.
  - Space is available to provide the line color for up to three lines. Provide any further information in Additional Remarks.
- **Biofouling present on gear:** Check whether there was biofouling (e.g., sponges, tunicates, bivalves, algae, etc.) visible on the entangling gear. If so, estimate the percentage of the visible gear that was covered by biofouling. Please describe the type of biofouling present in Additional Remarks.
- **Gear retrieved:** Check if all, some, or none of the gear was collected. If gear was collected, indicate its disposition, i.e., where the gear is located at the time this form is submitted to NMFS. If the location of the gear changes after the form is submitted, please contact NMFS with the updated gear location or update this information on the STERF and resubmit. Every effort should be made to send gear to NMFS *immediately*.

**Unless otherwise authorized, gear should *only* be collected if it is not actively fishing (i.e., only collect derelict, incomplete or displaced gear). Do not create derelict gear by collecting surface buoys, thereby leaving bottom gear unmarked.**

**DISENTANGLEMENT OUTCOME:** This section pertains to LIVE animals only; if the event involved a dead sea turtle, leave this section blank and go to Carcass Disposition. Please check ONE of the listed options to describe the disposition of the live animal at the time of this report being submitted to NMFS. If the turtle was disentangled by the reporting party and it is not clear whether it was completely freed of gear, check unknown and describe in Additional Remarks. If the turtle was only partially disentangled, please note what gear is left on the animal. If the turtle was collected for treatment, please provide the name of the rehabilitation facility. If the turtle was relocated, please provide the latitude and longitude and/or locality details of the release site.

**CARCASS DISPOSITION:** This section pertains to DEAD animals only; if the event involves a live sea turtle, leave this section blank and go to Disentanglement Outcome. Please choose one *or more* of the listed options to describe the disposition of the carcass and/or samples at the time of this report being submitted to NMFS. In the marine environment, biopsy samples are only authorized to be collected from dead turtles.

**TAG / MARK DATA:** Space is provided for three tags / marks; if necessary continue in Additional Remarks.

- **Checked for flipper tags:** Please indicate whether or not all four flippers of the turtle were examined for the presence of flipper tags.
- **Scanned for PIT tags:** Please indicate whether or not the turtle was scanned, using a PIT tag scanner, for the presence of PIT tags.
- **Tag / mark type:** In this column, please indicate the type of any tags or marks that were either applied during response or discovered upon examination. Examples include, but are not limited to, inconel tag, PIT tag, paint mark, living tag, or satellite tag.
- **Numbers:** In this column, please indicate any numbers associated with tags or marks that were either applied during response or discovered upon examination.
- **Location on animal:** Use this column to indicate the location on the animal of tags or marks that were either applied during response or discovered upon examination.
- **Applied or Present:** Check whether the tag or mark referred to in that row was applied during response or present at the time of examination.

**ENTANGLEMENT / WOUND DESCRIPTION:**

Use the table to describe the entanglement configuration and any wounds associated with the entanglement site.

- **Body area involved:** In this column, please check the box(es) corresponding to the areas of the body directly involved with the entanglement.
- For each body area, there are eight boxes (see below) that may be checked to describe the nature of injury at the entanglement site. In addition, there is space for a description of the entanglement configuration and wounds. Use this space to describe the exact location of wraps in that body area, the number of wraps, whether they were complete or partial circumference, whether they were tight (i.e., no space between tissue and gear) or loose (some space between tissue and gear), and any other details that describe the entanglement. If applicable, note which of the described gear was left on the animal at release. Continue in Additional Remarks if necessary.
  - **Movement impaired:** movement in this body area is abnormal.
  - **Indentation:** a depression in the tissue at the entanglement site; skin was not missing or broken.
  - **Skin abraded:** wearing away / erosion of the upper layer of skin at the entanglement site as a result of friction from the gear; an abrasion involves only the skin and not the underlying tissue.
  - **Muscle exposed:** muscle is visible at the entanglement site.
  - **Bone exposed:** bone is visible at the entanglement site.
  - **Swelling:** tissue swollen at the entanglement site.
  - **Discoloration:** skin is discolored pale, white, brown, red, green, or anything beyond normal limits.
  - **Tissue necrotic / sloughing:** tissue necrotic, i.e. skin and underlying tissue discolored (pale, white, brown, red, or green) and easily falling apart or splitting.

**BEHAVIORAL OBSERVATIONS**

- **Response to Approach and Handling:** Choose one of the four options to best describe the turtle's behavior during approach and disentanglement. If behavior is unknown, please check Could not evaluate.
- **Response Upon Release:**
  - Choose one of the four options in the first row to best describe the turtle's behavior once the gear was removed. If behavior is unknown, please check Could not evaluate.
  - Choose one of the two options in the second row to best describe how soon the turtle swam away after disentanglement.
- **Describe Behavior:** Use this space to elaborate on behavior during disentanglement or upon release. Use the Additional Remarks section if need be.

**EVENT SUMMARY AND ADDITIONAL REMARKS:** *Do not leave this section blank!* Please provide a summary of the disentanglement event, including progression of events, overall behavior of the animal and amount of time spent on scene. Detail any other unusual circumstances, entanglement configuration, behavior, gear description, tag information or wounds not yet accounted for. Include any other information or remarks on the case.

**NMFS CONTACT INFORMATION:**

**Electronic submission of photos, video and STERFs (preferred means of submission):**

[Kate.Sampson@noaa.gov](mailto:Kate.Sampson@noaa.gov)

**Mailing address:**

**Photos, video, STERFs, gear, and/or biopsy samples:**

NOAA Fisheries Service, Greater Atlantic Regional Fisheries Office, Protected Resources

Division Attn: Kate Sampson, Sea Turtle Disentanglement Coordinator

55 Great Republic Drive, Gloucester, MA 01930

Fax: 978-281-9394

**Please address any questions to:**

Ph: 978-282-8470, [Kate.Sampson@noaa.gov](mailto:Kate.Sampson@noaa.gov)

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OMB Control No: 0648-0496; Exp Date: 09/30/2023