



GEAR CHARACTERIZATION GUIDE

U.S. ATLANTIC AND GULF OF Mexico

Photo credit: Center for Coastal Studies image, taken under 50 CFR 222.310

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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) 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).
- 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, 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 (≤ 0.5 cm)
- Leaders



Go to page 3.

Trap/Pot Gear

Includes:

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

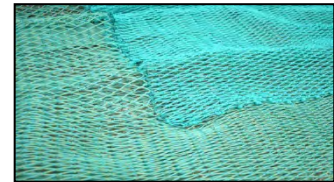


Go to page 9.

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, ≥ 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.



Circle



Treble



J



Kahle

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.



Inline



Offset

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.

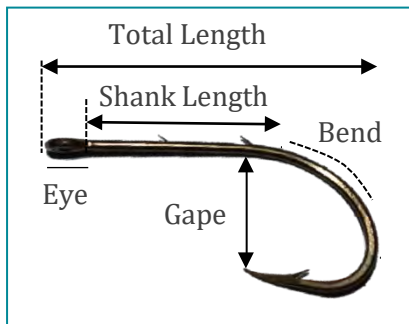
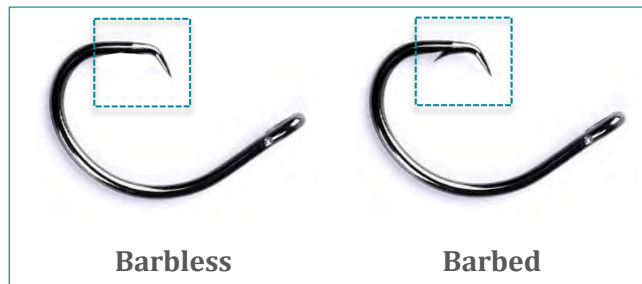


5. For each unique type of hook, record whether the hook is rusted or discolored.

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 (≤ 0.5 cm)

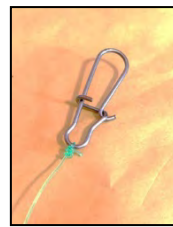
- Using a scale, photograph and record the number of any small diameter fishing lines (≤ 0.5 cm) present. Answer all subsequent line questions for each unique type of line present. A line is considered unique if any physical characteristics (e.g., material, color, condition, or diameter) are dissimilar 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

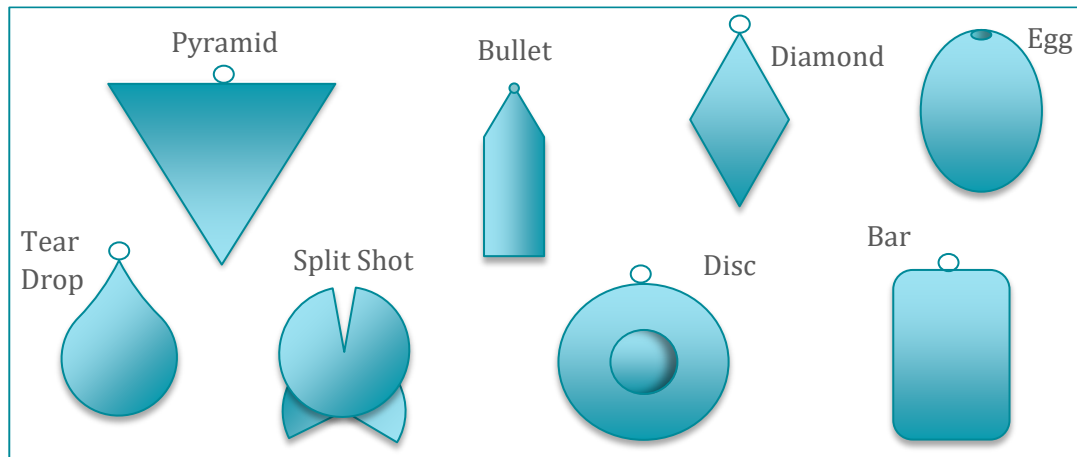


Snap



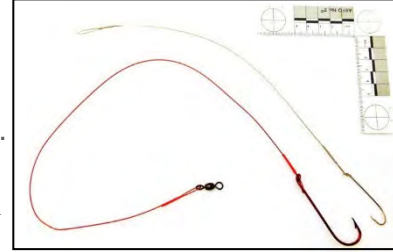
Weight

Examples of common weight shapes

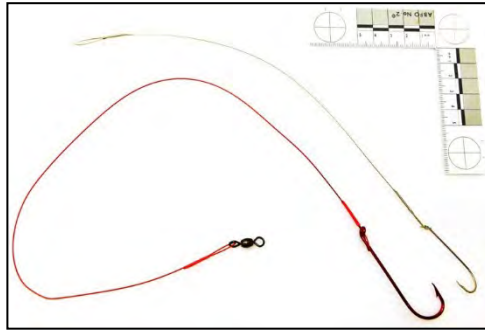


Leader

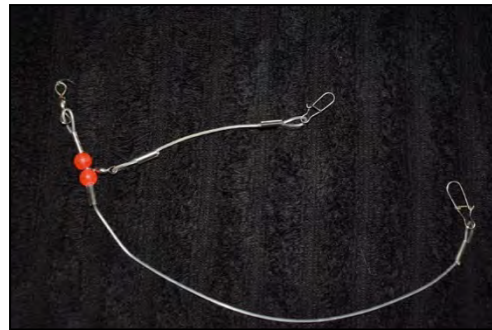
15. Using a scale, photograph, and record the number and presence of all leaders. A fishing leader is a length of fishing line (e.g., monofilament or wire) placed in between the mainline and the hook/lure. Answer all subsequent leader questions for each type of unique leader present. Record information 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)

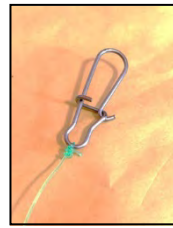
17. Examine the leader for any attachments, such as a crimp, swivel, snap, or weight. Photograph all sides of each attachment and record what attachment type is present. If a weight is present, record the shape of the weight (e.g., pyramid, egg, diamond, bar, bullet, etc.) and the weight (g).



Crimp



Swivel

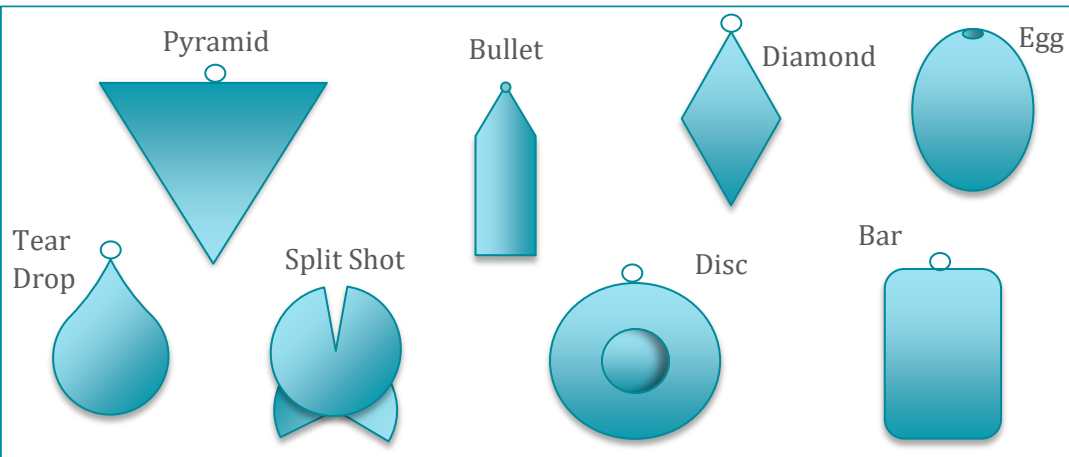


Snap



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.**

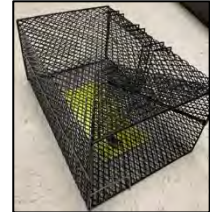
Circle Hook	J Hook
<p>If only a circle hook is present, submit if :</p> <ol style="list-style-type: none">1. Silver or grey color, or rusted <p>If circle hook and line/leader are present, submit all gear if *:</p> <ol style="list-style-type: none">1. Non-coated wire leader, or2. Monofilament line ≥ 0.74 mm <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">1. Total hook length measurement is ≥ 7.0 cm

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)

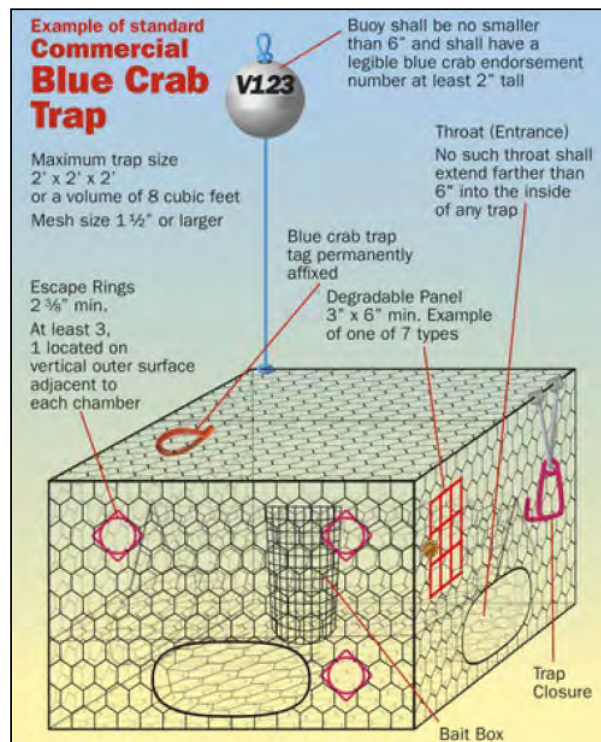


Trap/Pot

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.

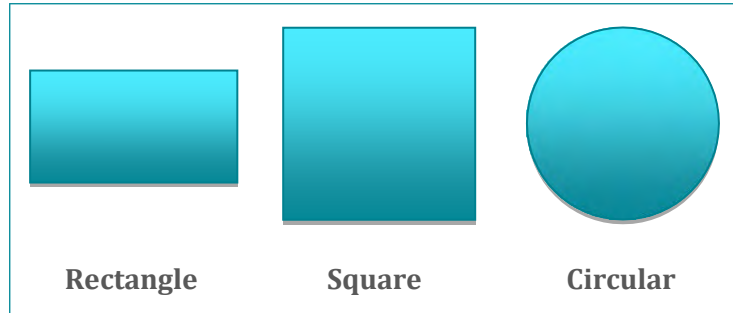
Record all materials that the trap/pot is constructed of, including plastic coated wire, galvanized wire, and rebar frame. Use the other field to record any trap/pot construction materials not listed, such as wood or plastic.

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



Trap/Pot (Continued)

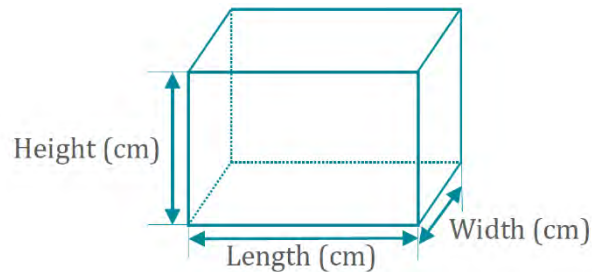
2. Inspect the trap/pot overall body condition and record it as either intact, collapsed/dented, or only a fragment/piece of the original trap/pot.
3. Record the trap/pot frame shape as either Rectangle, Square, Circular, or use the other field to describe a unique shape (e.g., Hexagon, Octagon, Pyramid,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



4. 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.

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

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



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

8. 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 (≥ 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 (≥ 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

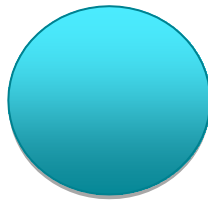
21. Examine the line for any additional attachments not previously described. If present, photograph these attachments and describe them. Use the next section to document any buoys attached to the line.

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.

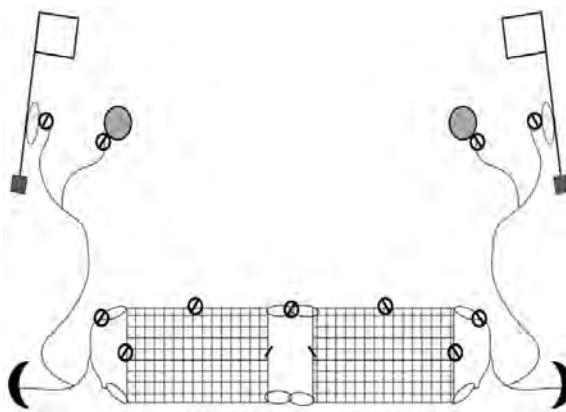


7. Photograph and record any other components on the net (e.g., TED, BRD, shackles, bag rings, floats, pingers), and include the overall net location.



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*)

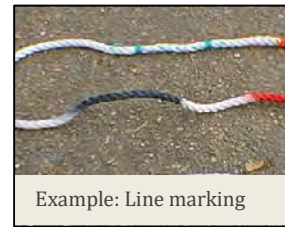


Line – Net Gear

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.

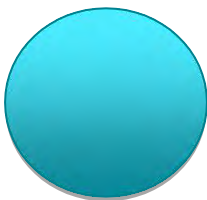


10. For each unique line type, record the line material, either monofilament or multifilament.
11. For each line type, record the diameter of the line (mm). The use of a caliper is recommended for this measurement.
12. For each line type, record the length of the line (m).
13. For each line type, describe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

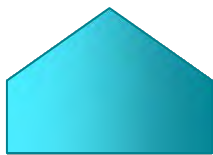


Buoy – Net Gear

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.



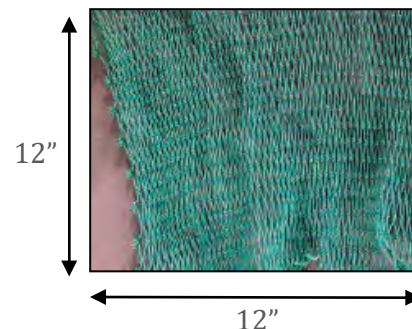
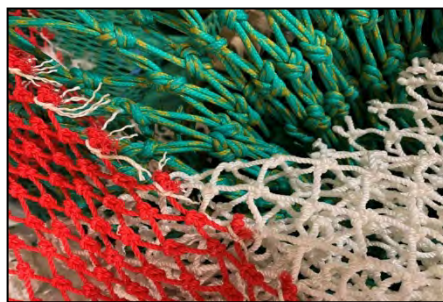
Gear Submission

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.

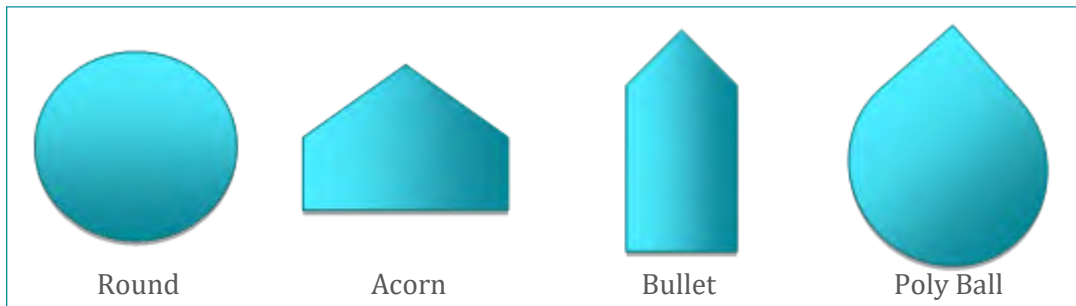
Buoy – Nautical Rope

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

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		
Stranding Location:	State			Contact Information:	First Name
Latitude			Last Name		
Longitude			Phone Number		

Hook			
1. Is there a hook(s) present?	<input type="checkbox"/> No <input type="checkbox"/> 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		
6. Is the hook barbless?	<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		

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:			

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: _____

Buoy- Trap/Pot Gear

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	
Stranding Location:	State		Contact Information: 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:

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	
Stranding Location:	State		Contact Information: First Name Last Name Phone Number
Latitude			
Longitude			

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: _____

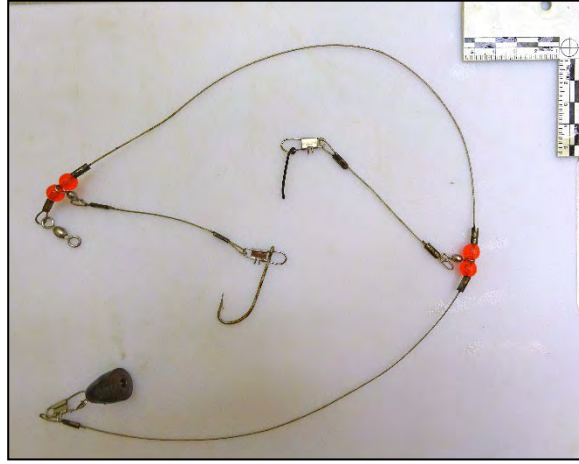
Comments: _____

Appendix A. Complete Gear Photo Series

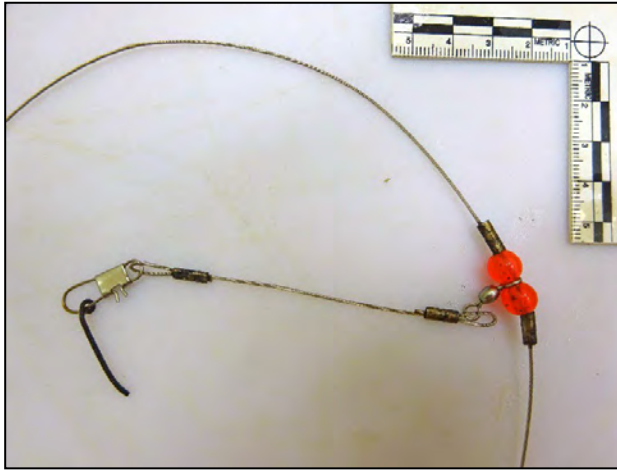
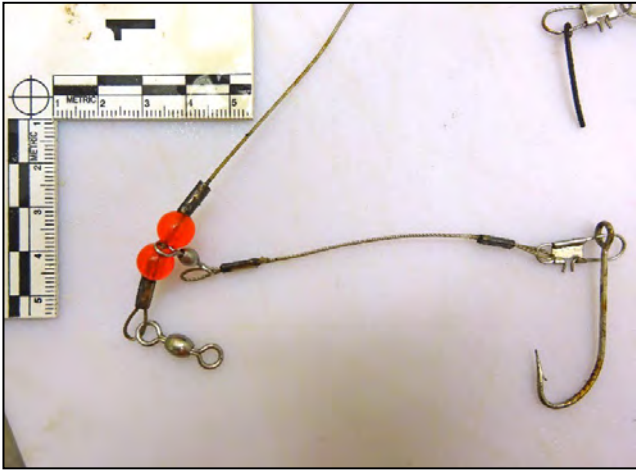
Example 1: Hook and Line Gear



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.*



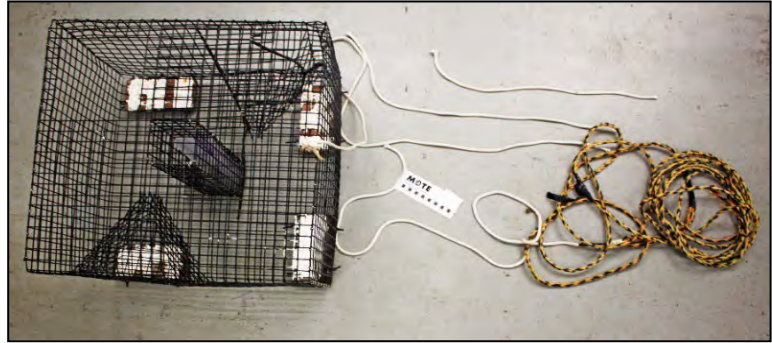
Configuration photos: Take closer images of all aspects of the material to clearly show how they are attached or arranged. Always include an internal ruler or scale.



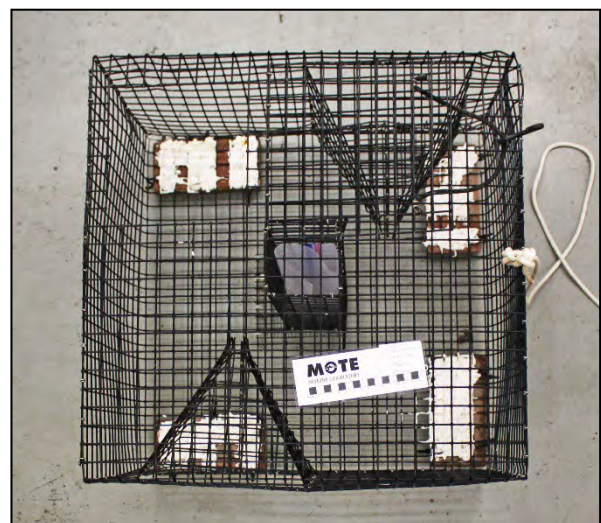
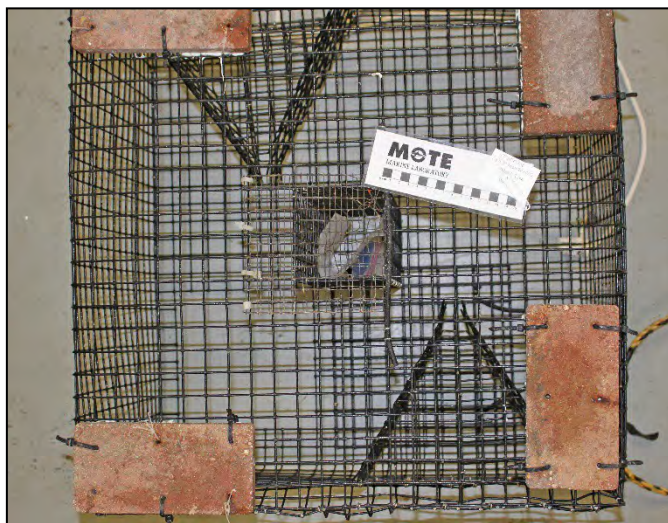
Example 2: Trap/Pot Gear



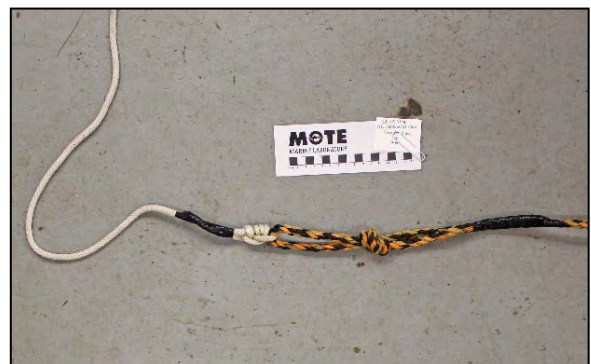
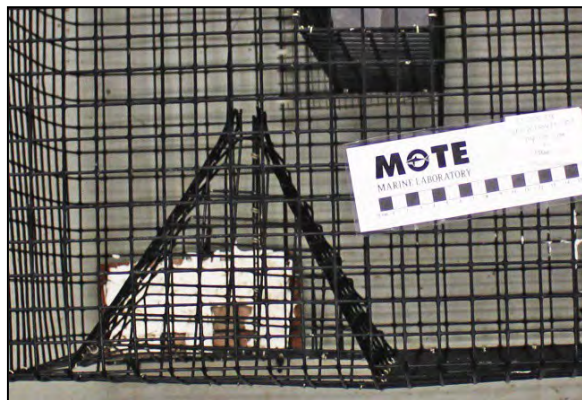
Example: Loggerhead turtle entangled in trap/pot gear.



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.*



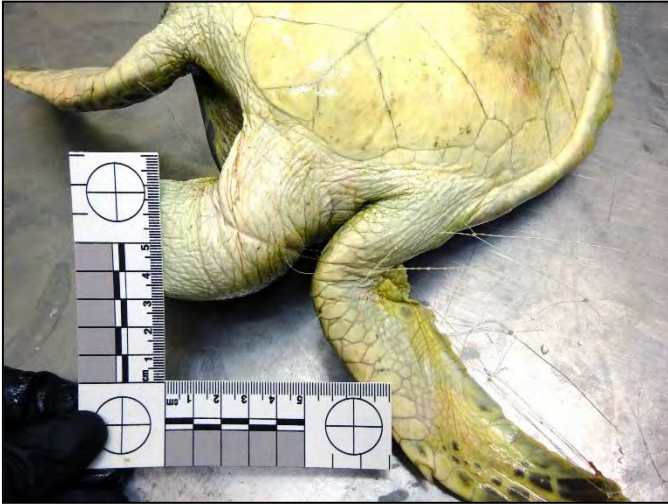
Trap photos: Take photos of multiple sides of the pot/ trap to clearly show its size and shape and any features, such as openings, escape rings and bait holders.



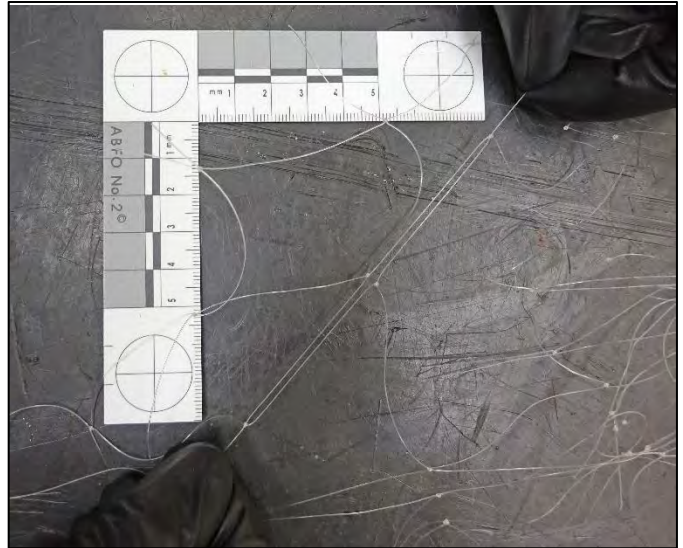
Trap component close-ups: Take closer images of any tags, identifiers/numbers, openings, other trap

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

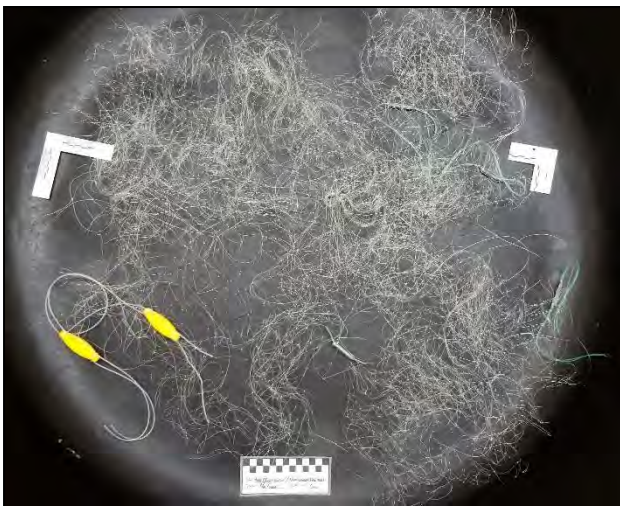
Example 3: Net Gear



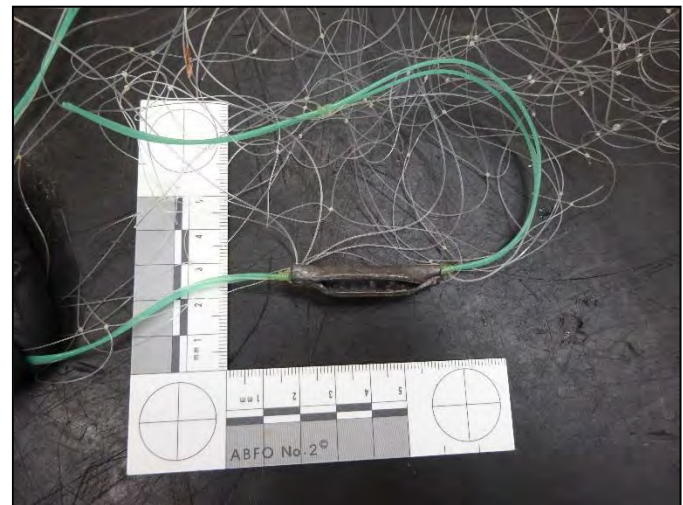
Example: Green turtle entangled in monofilament gillnet.



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.

