BEACH SEINE GEAR / BEACH ANCHORED GILLNET CHARACTERISTICS LOG

This log contains detailed questions about the gear fished. Complete a new log for each uniquely configured gear (as defined below) **hauled** during a trip. These unique configurations may be based on such variables as wing length, bunt height, wash net used, *etc*. Any changes in these fields require the completion of a new Beach Seine Gear Characteristics Log. Number each gear configuration sequentially.

If the gear is set out and hauled more than once during an observation, do not complete a new Beach Seine Gear Characteristics Log for the multiple hauls. Rather, record on the Beach Seine Haul Log which gear numbers are being hauled. In addition, record any other information necessary to understand the manner in which the gear was set/hauled in COMMENTS.

If the beach based fishery operator has two or more identical gears which are hauled separately, complete only one Beach Seine Gear Characteristics Log and record the consecutively assigned numbers of all identical gears described in GEAR NUMBER(S) (#1). See the beach seine fishery definitions below and GEAR NUMBER(S) (#1) for more information on defining and numbering gears.

If information is unavailable or unknown to any question except a “No/Yes” question, record a dash (-) in the field. If the answer to a “No/Yes” question is unknown, record a “9” on the line next to the code for "No" to indicate that the field was not skipped, but the answer is unknown. If a field relates to a question to which you previously answered “No”, leave the field blank.

Become familiar with the following definitions.

DEFINITIONS

Beach Seine: A vertical hanging net set from, and anchored to, the beach. This net may at times cover the entire water column. A beach seine net will include a bunt section at the beach end. At times, a beach seine net may also include a wash net at the beach end. The net will be pulled up onto the beach during haul back. Several techniques for this haul back can be used, but in general 4-wheel drive vehicles are utilized. Sometimes incorrectly referred to as a haul seine. See Figure 2.

Beach Anchored Gillnet: A vertical hanging net set from, and anchored to, the beach. This net may, at times, cover the entire water column. This net will **not** include a bunt or wash net section but rather be comprised solely of monofilament gillnet. Set and haul techniques are the same as with a beach seine net. See Figure 3.

Bunt: A short section (approx. 30 ft.) of twisted multifilament nylon. This section is located on the beach end of a beach seine net and is intended to trap fish, without gilling, so that they can be hauled up onto the beach.

Wing: The main component of a beach seine net. It is a monofilament nylon gillnet. One, two, or more nets can be used in the wing. If more than one net is used, then the net closest to the beach is net #1. Fish can be filled in the wing or it can be hauled in such a manner as to "corral" the fish.

Wash Net: A short section (approx. 10 ft.) of monofilament gillnet attached on the beach end of a beach seine net. This net is generally heavier twine and larger mesh than what is used in the wing. The intent of this net is to allow debris caught in the surf zone to pass through without being caught.

INSTRUCTIONS

For instructions on completing the Header Fields **A, B** and **D** refer to the Common Haul Log Data section of the NEFSC Observer Program Manual.

1. GEAR NUMBER(S): Record the consecutive number(s) assigned to each uniquely configured gear hauled and for which the characteristics are described. See the definition of gear in the introduction.

NOTE: If two or more identical gears are used, assign consecutive numbers to each gear and record all of these numbers on one Beach Seine Gear Characteristics Log.

Example: The first uniquely configured beach seine is “1”, and its characteristics will be recorded on one Beach Seine Gear

Characteristics Log. Two other beach seines are hauled during the observation. These differ from "1" but are identical to each other. They are "2" and "3", and their characteristics are recorded on a second Beach Seine Gear Characteristics Log.

2. NUMBER OF NETS: Record the **total** number of individual nets in the wing of this gear. **Do not** include the bunt or wash net in this count.

BUNT CHARACTERISTICS

If no bunt is used in this gear, record a dash (-) in fields #3 - #14.

3. BUNT USED?: Record whether a bunt is used in this gear by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

4. LENGTH: Record, in whole feet, the total length of the bunt in this gear as measured along the floatline. This information may be obtained from the operator.

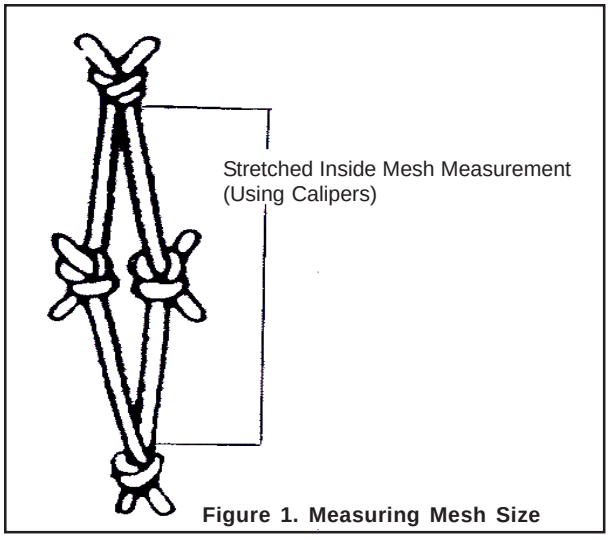

Figure 1. Measuring Mesh Size

Do not include the length of the wing or wash net in this length.

5. HEIGHT: Record, to the nearest tenth of a foot, the height of the bunt in this gear. This value is obtained by measuring the height along one endline. This information may also be obtained from the operator.

6. BUNT MESH SIZE: Record, to the nearest hundredth of an inch, the mesh size used in the bunt of this gear. This value may be obtained by measuring a stretched mesh using calipers. This measurement should be taken inside, from knot to knot, stretched in the direction in which the mesh is hung. See Figure 1 and Appendix P. Vernier Caliper Instructions for further information. This information may also be obtained from the operator.

7. ACTUAL/ESTIMATED: Indicate whether the bunt mesh size is an actual or estimated measurement by circling the appropriate letter:

A = Actual.
E = Estimated.

NOTE: An **actual** mesh size measurement is obtained using calipers. See MESH SIZE (#6) for measurement instructions. An **estimated** mesh size measurement is provided by the operator.

8. MESH COUNT, VERTICAL: Record the number of vertical meshes of the bunt used in this gear. This information may be obtained by counting the number of individual meshes along one endline. This information may also be obtained from the operator.

9. HANGING RATIO: Record the average fractional ratio of the length of the floatline for the bunt to the length that the bunt would be if it was taken off the floatline and stretched out. This value can be calculated by counting 10 or 12 meshes horizontally, measuring the length of the floatline to which they are attached, and comparing that distance to the stretched out length of the meshes. This information may also be obtained from the operator.

Example: If the stretched out distance of the meshes is two times the length of the floatline, record "1/2".

TWINE SIZE

10. NUMBER: Record the twine size number (industry standard) of the bunt webbing used in this gear. This information may be obtained using a twine size measuring tool provided by the NEFSC Observer Program or contractor. This information may also be obtained from the operator. See Appendix Q. Conversion Tables for a listing of industry standard twine size numbers and their corresponding diameters.

NOTE: This number should reflect the total diameter of the bunt webbing, and not the diameter of an individual strand which may be twisted with other strands to create the bunt webbing.

11. ACTUAL/ESTIMATED: Indicate whether the bunt twine size number is an actual or estimated measurement by circling the appropriate letter:

A = Actual.
E = Estimated.

NOTE: An **actual** twine size number is obtained using calipers. See MESH SIZE (#6) for measurement instructions. An **estimated** twine size number is provided by the operator.

12. NUMBER OF STRANDS: Record the number of strands of twine in the bunt webbing used in this gear. This information may be obtained from the operator.

NOTE: This number should reflect the total number of individual strands used to make up the bunt webbing.

Example: Monofilament has 1 strand.

13. COLOR: Indicate the color of the bunt webbing used in this gear by recording the most appropriate two digit code listed below:

00 = Unknown.
01 = Clear.
02 = White.
03 = Pink.
04 = Black.
05 = Green.
06 = Blue.
07 = Multicolor, record all colors in COMMENTS section.
08 = Red.
09 = Orange.
10 = Purple.
98 = Combination, record all colors in COMMENTS section.
99 = Other, record the color in the COMMENTS section.

NOTE: "Multicolor" - 07, should be used **only** if more than one color of webbing is used within the bunt.

14. MATERIAL: Record the material of the bunt webbing used in this gear by placing an "X" next to the appropriate code:

0 = Unknown.
1 = Nylon.
9 = Other, record the bunt webbing material on line 14A.

NOTE: This information may be obtained from the operator.

FLOATLINE

15. FLOATLINE MATERIAL: Record the material of the floatline used in this gear by placing an "X" next to the appropriate code:

0 = Unknown.
1 = Floating (foam core).
2 = Twisted Polypropylene.
9 = Other, record the bunt webbing material on line 15A.

GEAR CHARACTERISTICS

WASH NET

16. USED?: Record whether a wash net is used in this gear by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

17. LENGTH: Record, in whole feet, the horizontal length of the wash net used in this gear. This information may be obtained from the operator.

FLOATS

18. USED?: Record whether floats are used on this gear by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

19. DISTANCE BETWEEN: Record, in whole feet, the **average** distance along the floatline between floats used on this gear. This information may be obtained from the operator.

ANCHOR(S)

20. USED?: Record whether anchors were used on this gear by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

21. NUMBER: Record the total number of anchors used on this gear.

22. TYPE(S): Indicate which type(s) of anchors are used on this gear by placing an "X" next to the appropriate code:

0 = Unknown.
1 = Danforth-style.
2 = Dead Weight (*i.e.* railroad tracks, mushroom weights, pile of leadline tied together).
8 = Combination, record all anchor types used in the COMMENTS.
9 = Other, record the anchor type on line 22A.

NOTE: For examples of common anchor types, reference Figure 2 in the Gillnet Gear Characteristics Log section of this manual.

23. WEIGHT: Record, in whole pounds, the **total** weight of the anchor(s) used to hold this gear in place. This information may be obtained from the operator.

24. WEIGHT - ACTUAL OR ESTIMATED: Record whether the weight recorded in #23 is an actual or estimated weight by placing an "X" next to the appropriate code:

1 = Actual.
2 = Estimated.

25. LEADLINE WEIGHT: Record, in whole pounds, the average weight per net of the leadline used in this gear. This information may be obtained from the operator.

ACTIVE MARINE MAMMAL DETERRENT DEVICES

An "active" marine mammal deterrent device is a device which emits sound which may be detected by a marine mammal.

26. USED?: Record whether "active" marine mammal deterrent devices (*i.e.* pingers) were used on this gear when it was set by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

27. NUMBER: Record the number of active marine mammal deterrent devices (*i.e.* pingers) on the gear **when it was set**. This information can be obtained from the operator if the set is not observed.

28. BRAND(S): Indicate which brand(s) of active marine mammal deterrent devices are used on this gear by placing an "X" next to the appropriate code:

0 = Unknown.
1 = Dukane.
2 = Airmar.
3 = Fumunda.
8 = Combination, record all brands in the COMMENTS.
9 = Other, record the brand on line 28A.

29. FREQUENCY: Record the frequency of the active marine mammal deterrent devices used in this gear in kilohertz (kHz). If more than one frequency of active deterrent device is used, record the frequency of the majority of the active deterrent devices on the gear. If an equal number of different frequency active deterrent devices are used, record the highest frequency used.

Example: 10 kHz.

PASSIVE MARINE MAMMAL DETERRENT DEVICES

A "passive" marine mammal deterrent device is a device which may provide reflection of marine mammal echolocation signals or be detected visually.

30. USED?: Record whether "passive" marine mammal deterrent devices were used on this gear when it was set by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

Example: Net material that is designed to be more acoustically visible to marine mammals.

31. NUMBER: Record the number of passive marine mammal deterrent devices on the gear **when it was set**. This information can be obtained from the operator if the set is not observed.

NOTE: If some or all of the nets in the gear are made from material that is designed to be more acoustically visible to marine mammals, record the **number of nets** within the gear made from this material.

WING CHARACTERISTICS

If only one net is used in the wing portion of the gear, record a dash (-) in fields #32 - #43. If two nets are used, the net nearest the beach is net #1.

32. NET NUMBER: Record the net number, beginning with the net closest to the beach.

33. NET LENGTH: Record, in whole feet, the total length of the net in this gear as measured along the floatline. This information may be obtained from the operator. Do not include the length of the bunt or wash net in this length.

34: NET HEIGHT: Record, to the nearest tenth of a foot, the height of the net in this gear. This value is obtained by measuring the height along one endline. This information may also be obtained from the operator.

35. NET MESH SIZE: Record, to the nearest hundredth of an inch, the mesh size used in the net of this gear. This value may be obtained by measuring a stretched mesh using calipers. This measurement should be taken inside, from knot to knot, stretched in the direction in which the mesh is hung. See Figure 1 and Appendix P. Vernier Caliper Instructions for further information. This information may also be obtained from the operator.

36. ACTUAL/ESTIMATED: Indicate whether the net mesh size is an actual or estimated measurement by circling the appropriate letter:

A = Actual.
E = Estimated.

NOTE: An **actual** mesh size measurement is obtained using calipers. See MESH SIZE (#6) for measurement instructions. An **estimated** mesh size measurement is provided by the operator.

37. NET MESH COUNT, VERTICAL: Record the number of vertical meshes of the net used in this gear. This information may be obtained by counting the number of individual meshes along one endline. This information may also be obtained from the operator.

38. NET HANGING RATIO: Record the average fractional ratio of the length of the floatline to the length that the net would be if it was taken off the floatline and stretched out. This value can be calculated by counting 10 or 12 meshes horizontally, measuring the length of the floatline to which they are attached, and comparing that distance to the stretched out length of the meshes. This information may also be obtained from the operator.

Example: If the stretched out distance of the meshes is two times the length of the floatline, record "1/2".

TWINE SIZE

39. NUMBER: Record the twine size number (industry standard) of the net webbing used in this gear. This information may be obtained using a twine size measuring tool provided by the NEFSC Observer Program or contractor. This information may also be obtained from the operator. See Appendix Q. Conversion Tables for a listing of industry standard twine size numbers and their corresponding diameters.

NOTE: This number should reflect the total diameter of the net webbing, and not the diameter of an individual strand which may be twisted with other strands to create the net webbing.

40: ACTUAL/ESTIMATED: Indicate whether the

net twine size number is an actual or estimated measurement by circling the appropriate letter:

A = Actual.
E = Estimated.

NOTE: An **actual** twine size number is obtained using a measuring tool provided by the NEFSC Observer Program or contractor. An **estimated** twine size number is provided by the operator.

41. NUMBER OF STRANDS: Record the number of strands of twine in the net webbing used in this gear. This information may be obtained from the operator.

NOTE: This number should reflect the total number of individual strands used to make up the net webbing

Example: Multi-strand, multi-filament and monotwist will consist of multiple strands of nylon.

42. NET COLOR: Indicate the color of the net webbing used in this gear by recording the most appropriate two digit code listed below:

00 = Unknown.
01 = Clear.
02 = White.
03 = Pink.
04 = Black.
05 = Green.
06 = Blue.
07 = Multicolor, record all colors in COMMENTS section.
08 = Red.
09 = Orange.
10 = Purple.
98 = Combination, record all colors in COMMENTS section.
99 = Other, record the color in the COMMENTS section.

NOTE: "Multicolor" - 07, should be used **only** if more than one color of webbing is used within the wing.

43. NET MATERIAL: Record the material of the wing webbing used in this gear by placing an "X" next to the appropriate code:

0 = Unknown.
1 = Nylon.
9 = Other, record the wing webbing material on line 43A.

NOTE: This information may be obtained from the operator.

COMMENTS

Record any additional information about this gear, *i.e.* unusual arrangements of the gear, *etc.* If more room is needed, use the back of this log, making sure to write "See Back" on the front of the log. Reference each comment with its corresponding field name.

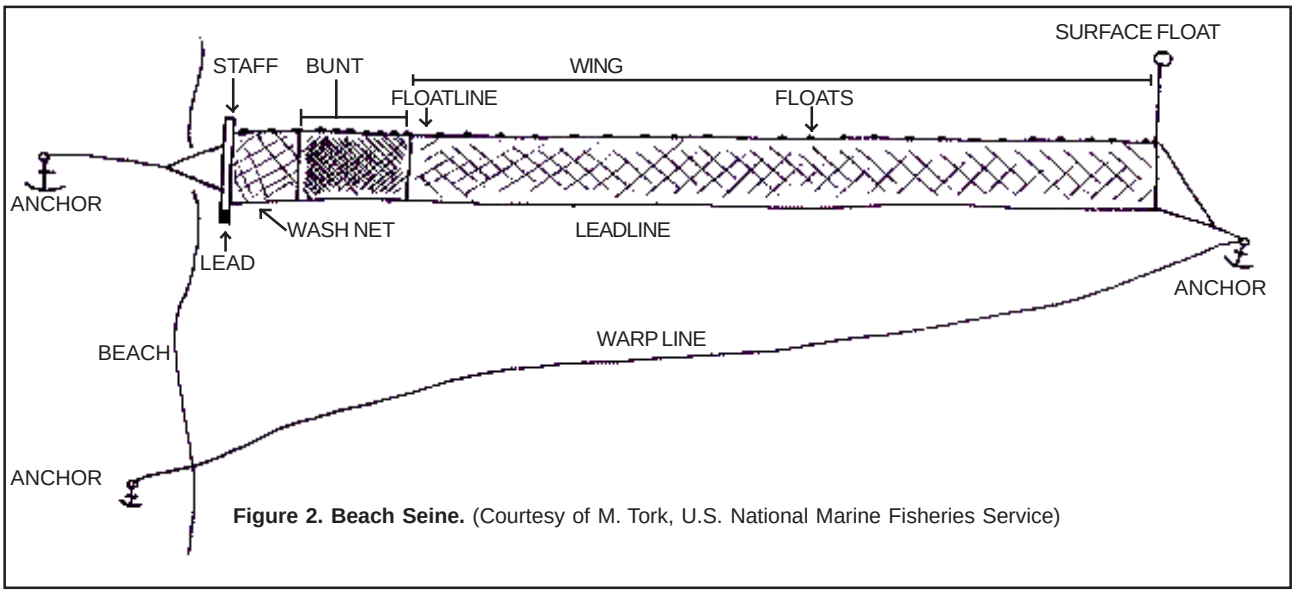

Figure 2. Beach Seine. (Courtesy of M. Tork, U.S. National Marine Fisheries Service)

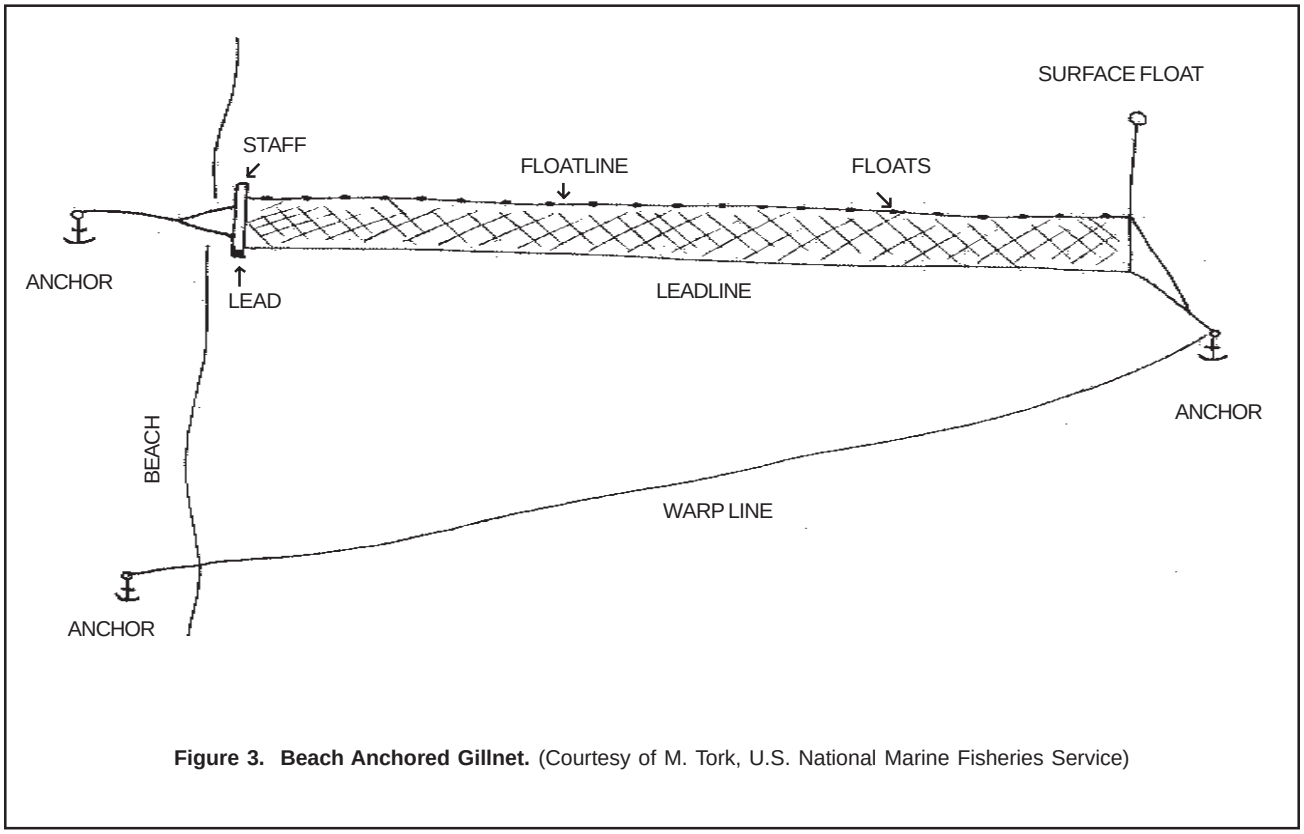

Figure 3. Beach Anchored Gillnet. (Courtesy of M. Tork, U.S. National Marine Fisheries Service)