**Global fishing gear loss analysis: Amounts, causes and management options**

**Gear Type: Traps/Pots**

**1. Background information**

1.1 Respondent’s number: *(randomly generated for each survey)*

1.2 Date of interview (dd/mm/yyyy): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Location where fishing occurs (general): \_\_\_\_­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Researcher name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Respondent’s name\*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Respondent’s email\*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 Respondent’s phone number\*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*\*Reminder: All information collected is treated anonymously, with respondent contact information only collected for follow-up purposes to clarify any responses, if required.*

1.8 Length of current vessel (meters): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.9 Tonnage of current vessel (tonnes): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.10 Holding capacity of fish/catch for current vessel (tonnes): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.11 Engine power of current vessel (kW or HP): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.12 Typical number of crew members on current vessel, including skipper: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.13 Position on vessel, *please circle all that apply*

Skipper Captain First mate Crew member Owner Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.14 How many years have you been working in your fishery? Please circle

0-4 5-9 10-14 15-19 20-24 25-29 30+

1.15 Do you belong to a fisher-based organization such as a fisher’s cooperative or association? Please circle

Yes No

**2. Primary target species and days fished**

2.1 *In the table below, please identify 1) the usual target species that you fish, 2) the usual number of days that you fish in a season and 3) whether licenses or permits are required.*

|  |  |  |
| --- | --- | --- |
| **Primary target species** | **Days fished per season** | **License (Y/N)** |
| **Spring** | **Summer** | **Fall (Autumn)** | **Winter** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

2.2 *How much money would your vessel’s catch be worth from a typically good fishing trip? I.e. total payment received for the catch for the vessel. Please estimate.*

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

2.3 *How much money would your vessel’s catch be worth from a typically bad fishing trip? I.e. total payment received for the catch for the vessel. Please estimate.*

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

**3. Effort**

3.1 *On a typical trip, how many days or hours does your vessel usually stay at sea?*

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

3.2 *On a typical trip, how many hours does your vessel usually fish (work traps, hauling or shooting) in a day (24-hour period)?*

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

3.3 *Does your vessel usually fish during the day, at night, or both day and night? Please circle*

 Daytime only Night only Both day and night

3.4 *How long do your vessel’s pots/traps usually soak per set (hours or days)?*

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

3.5 *How many pots/traps does your vessel usually set in a day (24-hour period)?*

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

3.6 *What is the usual depth range where your vessel fishes (meters)?*

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

**4. Gear characteristics**

4.1 *What is the common configuration of the gear that your vessel uses? Please circle*

Individually flagged (single) pots/traps In a fleet of \_\_\_\_\_\_\_\_ pots/traps joined by a line

4.2 *What are the approximate dimensions of a typical trap? Please estimate lengths by base and height*

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

4.3 *What are the main materials that your traps are composed of? Please circle all that apply*

Wood Steel Wire Netting (plastic) Netting (non-plastic) Plastic Other: \_\_\_\_\_\_\_\_\_\_

4.4 *How long do your traps usually last before they need to be replaced (days and/or years)?*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**5. Amount of gear lost**

5.1 *Please indicate the usual number of pots/traps that are lost for a corresponding number of trips.*

\_\_\_\_\_\_\_\_ *number of* *pots/traps are usually lost every \_\_\_\_\_\_\_\_ number of trip(s)*.

5.2 *How many pots/traps does the vessel usually lose in a year?*

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

5.3 *Does the vessel report when fishing gear is lost? Please circle*

 Yes No I do not know

5.3.1 *If Yes to 5.3, how or to whom does the vessel report lost gear? Please circle all that apply or fill in additional comments in the space provided if none apply.*

Logbook Management agency Other fishers in area (e.g. to avoid gear fouling)

Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ I do not know

5.3.2 *If No to 5.3, why do you think the vessel does not report lost gear?*

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

5.4 *Who is responsible for reporting lost gear? Please circle all that apply or fill in additional comments in the space provided if none apply*.

Skipper/captain First mate Crew member I do not know

Lost gear reporting is not required in my fishery Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.5 *If fishing gear is lost or damaged, who pays to replace or repair the gear? Please circle (if these categories are the same, please circle both e.g. vessel owner is also skipper/captain):*

Skipper/Captain Vessel owner Corporation/company that owns the vessel as part of a fleet

Fishing cooperative/association Fisher responsible for gear loss or damage

Entire fishing vessel crew I do not know Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6. Lost gear retrieval**

6.1 *When pots/traps are lost, does the vessel usually attempt to retrieve them? Please circle*

 Yes No I do not know

6.1.1 *If Yes to 6.1, how often is the vessel usually able to successfully retrieve lost pots/traps? Please circle*

Never Rarely Sometimes Often Always I do not know

6.1.2 *If Yes to 6.1, does the vessel use on-board technologies such as navigation systems to return to where the gear was lost?*

 Yes No I do not know

6.2 *Does the vessel have retrieval tools such as grapnels onboard to retrieve lost gear? Please circle and, if yes, specify the types of tool(s)*

 Yes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ No I do not know

**7. Causes of gear loss**

7.1 *When the vessel loses fishing gear, what are the main causes of the gear loss? Please circle how often the following usually occur and result in gear loss*

Unable to find pots/traps after gear movement Never Rarely Sometimes Often Always

Loss of marker buoy Never Rarely Sometimes Often Always

Bad weather Never Rarely Sometimes Often Always

Unexpected swells (height and/or period) Never Rarely Sometimes Often Always

Damage by wildlife Never Rarely Sometimes Often Always

Faulty or damaged gear Never Rarely Sometimes Often Always

Operator error Never Rarely Sometimes Often Always

Gear not properly stored on-board Never Rarely Sometimes Often Always

Conflict with other vessels e.g. vessel runs over line Never Rarely Sometimes Often Always

Vandalism Never Rarely Sometimes Often Always

Theft Never Rarely Sometimes Often Always

Gear discarded overboard, e.g. damaged gear Never Rarely Sometimes Often Always

Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Never Rarely Sometimes Often Always

7.2 *What practices does your vessel employ to minimise or prevent fishing gear loss? Please circle how often your vessel usually engages in the following practices to minimise or prevent gear loss*

Avoid fishing in areas where gear might be snagged Never Rarely Sometimes Often Always

Modify gear configuration(s) for bottom conditions Never Rarely Sometimes Often Always

Avoid fishing in areas with lots of lost pots Never Rarely Sometimes Often Always

Communicate with other vessels Never Rarely Sometimes Often Always

Avoid fishing in overcrowded areas Never Rarely Sometimes Often Always

Avoid fishing in bad weather Never Rarely Sometimes Often Always

Avoid areas of high vessel traffic Never Rarely Sometimes Often Always

Retrieve pots before storm events Never Rarely Sometimes Often Always

Gear marking/tracking technologies Never Rarely Sometimes Often Always

Train crew members in gear management Never Rarely Sometimes Often Always

Maintain and/or replace old and/or damaged gear Never Rarely Sometimes Often Always

Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Never Rarely Sometimes Often Always

**8. Fisheries management plans, observer programs, infrastructure**

8.1 *Are you aware of any fisheries management plans, regulations or similar that specifically mention lost or discarded fishing gear? Please circle*

Yes No

8.2 *Do fisheries observers in your fishery report lost or discarded fishing gear? Please circle*

 Yes No I do not know There are no fisheries observers for my fishery

8.3 *Do requirements exist for reporting lost fishing gear in fishing vessel logbooks? Please circle*

 Yes No I do not know

8.4 *Are there any places to deposit old or no longer usable fishing gear at the ports where you work from?*

Yes No I do not know

8.5 *Does your vessel have specific protocols/methods for how to store pot/traps on-board? Please circle*

 Yes No I do not know

8.6 *Does your vessel have places to store old/damaged fishing gear no longer available for use? Please circle*

 Yes No I do not know

**9. Perceptions**

9.1 *Are you concerned about lost or discarded fishing gear? Please circle*

Not at all concerned Somewhat concerned Concerned Very concerned

9.2 *How important to you are the following issues that result from lost or discarded fishing gear in your fishery? Please circle*

Hazards to navigation Not important Somewhat important Important Very important

Economic losses Not important Somewhat important Important Very important

Impact on fish stocks Not important Somewhat important Important Very important

Damage to fishing gear Not important Somewhat important Important Very important

Harm to the environment Not important Somewhat important Important Very important

Entanglement of wildlife Not important Somewhat important Important Very important

Negative public perception of fishery Not impt Somewhat important Important Very important

Negative impacts on tourism Not important Somewhat important Important Very important

Costs of clean-up activities Not important Somewhat important Important Very important

Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Not important Somewhat important Important Very important

**10. Gear marking**

10.1 *Do requirements exist for the marking of fishing gear in your fishery, in addition to basic surface markers? Please circle*

 Yes No I do not know

10.2 *Does your vessel mark its fishing gear, in addition to basic surface markers? Please circle*

 Yes No

 11.2.1 *If Yes to 11.2, please specify how the fishing gear is marked in the space below*

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

10.3 *For surface markers, does the vessel use radio or satellite buoys? Please circle*

 Radio buoys Satellite buoys Neither

**11. General comments**

Please provide any additional information, feedback, or general comments you would like to share related to this survey. We also welcome links or recommendations to any relevant reports, shared here or by email to Kelsey.Richardson@csiro.au . Please write in blank space below.