



***Gear trials in the Suriname
multispecies demersal trawl
fishery***



Data collection protocol for trials with a flexible sorting grid

GENERAL NOTES

- Trials are done on a vessel equipped for **twin-rig trawling**, towing two identical trawls side-by side
- Both trawls should have the exact same dimensions, rigging and bottom gear, and have shown to **produce similar catches** (based on experience from the captain)
- The sorting grid should be installed in either the port or starboard trawl prior to departure, based on the instruction by NOAA (see documents produced under REBYC-II LAC project). Record in which trawl the grid is installed. This will be referred to as the **test net**, the other one as **control net**.
- Aside from all sampling equipment, the scientific crew should carry additional floats, rope, twine and needles onboard to make **adjustments and repairs** to the grid as needed
- The first hauls with the grid should not be samples, but the scientific crew should focus on the **performance of the grid**, taking into account:
 - o the general composition and quantity of catch
 - o the behavior of the grid on haulback and shooting of the gear
 - o the buoyancy of the grid, which should be adjusted as necessary by adding/removing floats
- Once the grid is well adjusted (which might take a few hauls), sampling should start according to the below **protocol**, which is repeated for each sampled haul.
- In order to calculate the total catch volume (see below), the **length and width of the deck pounds** should be measured

SAMPLING PROTOCOL PER HAUL

1. FILL IN THE HAUL LIST

(When setting out the gear and retrieving it)

- Date, time, position and depth at the start and end of each haul
- Fill in whether or not a sample has been taken. Hauls that are not sampled should be recorded as well.

2. ESTIMATE THE VOLUME OF THE TOTAL CATCH PER TRAWL

(Before the start of the catch processing of the crew)

- Measure the height of the catch in the deck pounds after a haul. Do this for both deck pounds (starboard and port side).
- In case the catch is dumped on deck a different protocol needs to be used in order to calculate the total volume (repeated for test and control net catches):
 - o Separate the catch in equal parts (for instance 10 equal parts)
 - o Shovel 1 part in baskets
 - o Count the number of baskets and write it down
 - o Calculate the total volume (For instance, $4\frac{1}{2}$ basket x 40 Liter per basket = 180 L. The total catch is $10 \times 180\text{L} = 1800$ Liter)

3. SAMPLE TEST NET

Ask the crew to start processing the catch of the test net, ensuring no mixing with the catch of the control net.

3.1 SAMPLE ETP SPECIES

- While the catch is being processed by the crew, remove all ETP species (rays, sharks, turtles and marine mammals) from the catch
- Identify and count all ETP species and set them aside for measuring later
- When time permits (after catch processing has finished), measure all ETP species to the nearest cm (TL for sharks, marine mammals; TW for rays; shield length for turtles)
- In case certain species are abundant, measure a minimum of 30 individuals
- Only after full identification and counting, the ETP species can be discarded

3.2 ESTIMATE WEIGHT OF LANDED CATCH

- After the crew is finished sorting the catch, the weight of landed catch is estimated per species. This can be done by counting the number of baskets per species. Make sure to count the baskets that are not fully full as well.
- Everything needs to be written down even if there is only one specimen per species
- If a basket contains a mix of species write it down as a mix (for instance kleine witwiti + krokus)
- During the trip weight at least three times the weight of a full fish basket for each fish species, to establish a weight conversion from basket to kg for each species.

4. SAMPLE CONTROL NET

After the catch of the test net has been processed, the crew can start processing the control net catch. Repeat steps 3.1 and 3.2 to sample the control net.

Note:

- o Once they have finished processing the second net, count all baskets of each fish species again. To get the amount of the second net subtract the first count from the final count.
- o Once all catch has been processed, the ETP species can be measured

EQUIPMENT LIST

- Marine scale
- 40 Liter basket
- Measuring tape
- Fish measuring board
- Pencil
- Forms
- Writing board
- Fish identification guide
- Personal clothing: boots, rain clothes, hat or cap etc.
- Gear repair equipment: twine, needles, etc.
- Floats
- Sorting grid