

FACTSHEET: Sampling pelagic fisheries through observer trips (PEL1)

Version: [v1, 21/02/2023]

Sampling protocol: PEL1
Sampling objective(s): data collection of catches for pelagic freezer trawlers
Start of sampling: 2002
Sampling ongoing: yes
<p>Data use</p> <p>From 2002 onwards – data collected raised to fleet level on request available for relevant end-users such as ICES and STECF.</p>
<p>Sampling design and method</p> <p>Annually 12 observer trips are carried out on board of pelagic freezer trawlers active in EU waters. The pelagic freezer trawlers are owned by a limited number of fishing companies. At the beginning of the year a sampling schedule is produced through a random weighted selection of fishing companies, where the weight is based on the number of freezer trawlers owned by each company. Selected companies are divided, according to the order generated by the random selection, over year with a sampling intensity of 1 trip per month. At the end of the month the selected company (for the next month) is contacted and requested for a scientific observer to board their next departing vessel. A scientific observer boards a selected trip where he/she samples the unsorted catch on haul basis. Next to sampling the catch, the scientific observer records on a haul basis rare, incidental bycatches, corresponding observation effort (expressed in the time observed of catch processing at the conveyer belt), whether an excluder was used in the net and if positive whether the scientific observer checked the excluder on rare, incidental bycatches. Furthermore, operational- and catch data (i.e. vessel position (at start and end); haul duration; depth; weather conditions; and the volume of catches) each time the fishing gear is deployed (each ‘haul’) is collected.</p> <p>In general, no age sampling is conducted as this is sufficiently covered by pelagic market sampling. However, if needed, age samples can be collected by the observer following the sampling method of PEL2 (See also factsheet PEL2).</p>
<p>Sampling protocol and data capture</p> <p><i>In the field</i></p> <p>For each observer trip, one observer goes onboard a trawler. Operational- and catch data are collected each time the fishing gear is deployed (each ‘haul’) during a fishing trip, regardless of it being sampled. With each haul the following information is registered: vessel position (at start and end); haul duration; depth; weather conditions; and the volumes of total catch.</p> <p>The observer is instructed take samples from all hauls. If this is not possible due to working hours or technical issues, non-sampled hauls are not taken into account. From each sampled haul, An unsorted catch sample of 30-150 kg (depending on the target species; e.g. herring “small” sample and mackerel “large sample”) is taken prior to the sorting process. The sample is weighed, weight of each species in the sample is recorded and all fish are measured ‘to the cm below’ (herring and sprat ‘to the 0.5 cm below’). Data is written down on specific measurements lists and entered in the computer later on.</p> <p>In addition, the observer also monitors incidental bycatches on the bridge and at the conveyor belt in close collaboration with the crew (see also factsheet PETS).</p>

Since 1st of January 2015 the pelagic freezer trawler fleet falls under the landing obligation. This means that in principle the fishery is obliged to keep catches of quota regulated species on board. However, fish that is still discarded (possibly due to an assigned exemption), is sampled:

- The discard percentage is estimated by the ratio between catch and discards.
- A discards sample of the haul is taken of a minimum of 20 kg (if discarding occurs in these numbers). The sample is weighed, weight of each species in the sample is recorded and all fish are measured 'to the cm below' (herring and sprat 'to the 0.5 cm below').

During each trip, all data collected is inserted in Billie Turf, the standard in-house data management software. The standard collected haul information (i.e. date, haul position, gear etc.) is also entered in excel.

In the lab

In case not all collected data could be inserted in Billie Turf on board, the observer can do so once back on shore.

Data quality

Quality assurance procedure

Measurement lists of collected data are archived at WMR and digitised data are stored as plain text files at a centralised location for which daily back-up routine is in place. When all data of a sampled trip has been inputted checks for outliers take place. The checks are conducted using standardised scripts (R, SAS) and involve outlier checks for numerical values, consistency checks for text variables, relational checks such as length-weight, length-age relationships, and maps with the sampling positions.

Data storage

National database: After file corrections, the data are stored in one of the centralised databases, FRISBE. The relevant aspects of this database are described in [Proc databases](#).

International database: ICES RDB(ES) <https://www.ices.dk/data/data-portals/Pages/RDB-FishFrame.aspx>

Data availability

Institutional availability: data is available to people with access rights to the shared location. Read and write rights can be assigned separately.

Public availability: data is available anonymously on aggregated level.

Reference to full documentation:

National manual: Bangma, T., A.S. Couperus, M. Dammers, A.T.M. van Helmond, P. Molenaar, H.M.J. van Overzee, 2022. CVO Handboek Discardsbemonstering en bijvangstregistratie. Versie 4.0, november 2022. CVO rapport 22.026

Review frequency full documentation: national manual is annually reviewed.

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