International Council for the Exploration of the Sea

Conseil International pour l'Exploration de la Mer

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Our Ref: L.27/ABC/HSL 27 March 2015

Subject: Revision II of the Data call 2015 (Ref. L.27/ABC/HSL, 3.2.2015 and 3.3.2015): Landings, discards, biological sample and effort data from 2014 to support the ICES fisheries advice in 2015.

Dear Reader,

Please find enclosed a revised version of a document describing the rationale, scope and technical details of this Data call 2015 and five annexes with additional information.

The revisions in Annex 1 concern the following Expert groups:

a) Working Group for the Bay of Biscay and the Iberian Waters Ecoregion (WGBIE): Submission of data to either InterCatch or Accessions has changed for Megrim (mgw-78, mgw-8c9a, mgb-8c9a), Sole (sol-bisc) and Nephrops (nep-30).

b) Working Group of the North Sea (WGNSSK): In the Benchmark WKPLE in February it was decided to merge the Plaice stocks from the North Sea (ple-nsea) and Skagerrak (ple-skag) to ple-nsea. For Lemon sole (lem-nsea), Nephrops (nep-33), Pollack (pol-nsea), Sole (sol-eche), and Whiting (whg-47d) new stock coordinators were assigned.

c) Working Group for the Baltic Fisheries Assessment (WGBFAS): To accommodate the results from the Benchmark WKBALCOD and the input during the InterCatch training course from the participants in March, submissions for biological sampling data to InterCatch and Accessions have changed for cod-2224, cod-2532, dab-2232, fle-2425, fle-2628, ple2432. The data submission deadline for this data will be extended until 14.04.2015.

   ICES is aware that this revision is issued after the deadline for WGBFAS in the original data call. To ensure an efficient WGBFAS meeting with update assessments available in the beginning of the meeting, ICES kindly asks data submitters to give priority to the revision of the Data call. Note that no additional data is being requested but only the approach to upload the data.

d) North Western Working Group (NWWG): Information on data request was added as the original data call was incomplete (cod-iceg, cod-ingr, ghl-grn,

smn-con, smn-dp, sms-sp, smr-5614). The Greenland offshore cod (cod-offgr) was split in the Benchmark WKICE in January into two stocks (cod-segr and cod-wgr).

e) Working Group Celtic Sea (WGSCE): Request for discard data has been changed for Plaice (ple-iris). For Sole (sol-celt) a new stock coordinator was assigned.

f) Working Group on Widely Distributed Stocks (WGWIDE): For Blue whiting (whb-comb) a new stock coordinator was assigned.

For clarity, changes to the previous version of the Data call are written in green.

The data will be used by ICES groups contributing to the advisory process addressing request for advice on fisheries, and fish and shellfish stocks from ICES advice recipients.

In case of questions please contact the ICES Secretariat (Henrikkn@ices.dk) for clarification.

Sincerely,

Anne Christine Brusendorff

Cc: Colm Lordan (WGCSE chair), Paul Dolder (WGMIXFISH-ADVICE chair), Bjarte Bogstad (AFWG chair), Rasmus Hedeholm (NWWG chair), Marie Storr-Paulsen (WGBFAS chair), Ivone Figueiredo (WGEF co-chair), Jim Ellis (WGEF co-chair), Lionel Pawlowski (WGHANSA chair), Michel Bertignac (WGBIE chair), Alexander Kempf (WGNSSK chair), Katja Enberg (WGWIDE chair)

ICES CIEM International Council for the Exploration of the Sea Conseil International pour l'Exploration de la Mer

Data call: Data submission for ICES advisory work

Scope of the Data call

ICES Countries are requested to provide landings, discards, biological data and effort data from 2014 and other supporting information for a list of stocks.

All countries having catch data on the requested stocks should submit data even if not listed on data request spreadsheets (Annex 1). The countries identified on the data requests spreadsheets are based on previous year catches and therefore new fisheries (in 2014) are not detected but should be reported.

Deadline

ICES requests the data to a specific date to provide enough time for quality assurance prior to the Experts Group meeting. See Table 1 for the data submission deadline. **A failure to comply that deadline will compromise the indispensable data quality checking (in a stock basis) before the use of that data for update assessments. Also, for EU Member States, failure to submit timely data collected under the Data Collection Framework** (Council regulation (EC) No 199/2008, No 665/2008) **might cause financial implications for EU countries under the Data Collection Framework.**

The deadline (Tab. 1) does not apply for the survey data, it is expected that survey data will be send to accessions@ices.dk prior the assessment expert group meeting.

Table 1. Data submission deadline for ICES expert groups and respective chair contact.

Expert Group (EG)	Chair of the EG	email address	Data submission deadline
AFWG	Bjarte Bogstad	bjarte.bogstad@imr.no	**10.04.2015**
HAWG	Niels Hitzen & Lotte Worsøe Clausen	niels.hintzen@wur.nl law@aqua.dtu.dk	**25.02.2015**
NWWG	Rasmus Hedeholm	rahe@natur.gl	**14.04.2015**
WGBFAS	Marie Storr-Paulsen	msp@aqua.dtu.dk	**23.03.2015**
WGBIE	Michel Bertignac	Michel.Bertignac@ifremer.fr	**10.04.2015**
WGCSE	Colm Lordan	Colm.Lordan@Marine.ie	**20.04.2015**
WGDEEP	Pascal Lorance & Gudmudur Thordarson	Pascal.Lorance@ifremer.fr gudthor@hafro.is	**28.02.2015**
WGEF	Ivone Figueiredo & Jim Ellis	ifigueiredo@ipma.pt jim.ellis@cefas.co.uk	**2.06.2015**
WGHANSA	Lionel Pawlowski	Lionel.Pawlowski@ifremer.fr	**25.05.2015**
WGMIXFISH-Advice	Paul Dolder	Paul.dolder@cefas.co.uk	**13.04.2015**
WGNSSK	Alexander Kempf	alexander.kempf@ti.bund.de	**13.04.2015**
WGWIDE	Katja Enberg	katja.enberg@imr.no	**27.07.2015**

Rationale

ICES is requested to provide fisheries advice regarding stocks in the ICES' ecoregions. This advice to fisheries management is developed on the basis of the best available data from surveys and commercial fisheries and the analysis of these data by the expert groups above and other relevant supporting ICES expert groups.

Why a joined Data call?

This is the first joint Data call for ICES expert groups (see above) and the rationale behind this is;

1) To standardize the Data call process, including a standard input data format.
2) To address the recommendation of the ACOM review of setting up Data calls for assessment expert groups.
3) To support the national institutes in planning data submissions throughout the year.

Data submission

ICES Countries are requested to supply data from 2014 as specified on the Expert Groups' data request spreadsheets (Annex 1) either to InterCatch or to ICES directly via accessions@ices.dk.
The list of species and stocks, for which data should be prepared, together with the information on the area descriptions, stock coordinators and their email addresses, are given in Annex 1. Use the filtering features in the spreadsheet to find the information per Expert Group.
Discard data has to be provided for all stocks for the years 2012-2014. Please read the guideline on submission of discard data below. For stocks which discard data has been submitted earlier to InterCatch, the 2014 data should be submitted to InterCatch (Annex 1).
If the format for submission of accession data (Annex 1) is not specified further through the provided templates (Annex 1-5), it should be the same as used in previous data calls (in doubt please contact the stock coordinators).

If corrections for earlier years need to be made, a full new set of data for the respective species may need to be uploaded as well. In such case, inform the Expert Group chair and the stock coordinator for the respective stock (see e-mail correspondence in Table 1 and Annex 1).

Biological sample should ONLY be uploaded to InterCatch if requested in Annex 1.

If both age and length data is requested, please be aware to upload only the biological sample data which is marked with "IC" in Annex 1 to InterCatch, while the other must be submitted to accessions@ices.dk.

Data to be submitted directly to ICES should be sent in a stock basis to accessions@ices.dk with the subject and filename as follows:

"2015 DC [expert group] [stock code/stock codes] [country] [type of data]".

Type of data can be: Landings, Landing and age, Landing and length, Discards, Discards and age, Discards and length, Effort-WGMIXFISH, Effort-WGCSE, Effort-WGBIE, Comm Tuning, Sex Mat, Sex Ratio, Samp Prog, Samp Quality.

The file will be forward to the respective stock coordinators and the Expert Group chair.

How to report to InterCatch

Please see the 'InterCatch Exchange Manuals' on the ICES website for the InterCatch exchange format at http://www.ices.dk/marine-data/data-portals/Pages/InterCatch.aspx.

The InterCatch formatted national data should be imported into InterCatch, which is available at this link: https://intercatch.ices.dk/Login.aspx.

The codes used in the InterCatch Exchange format, are explained in the InterCatch Exchange manual. The following will focus on the codes used for the field "Fleet", which in general is referred to as "*metier*". The *metiers* for expert groups, who have had Data calls earlier, are listed in Annex 1 (under sheet "InterCatch *metiers*). For stocks, which are included in the Data call for the first time, please check *metiers* in Annex 1; if not listed please contact the stock coordinator (see email address in Annex 1). For stocks, which have been included in Data calls before, if a *metier* needed is not available in InterCatch, please contact the expert group chair (Table 1).

The *metier* tag entries closely follow the naming convention used for the EU Data Collection Framework (DCF). Below is an explanation of the *metier* tag elements; an underscore separates each of the elements (Figure 1).

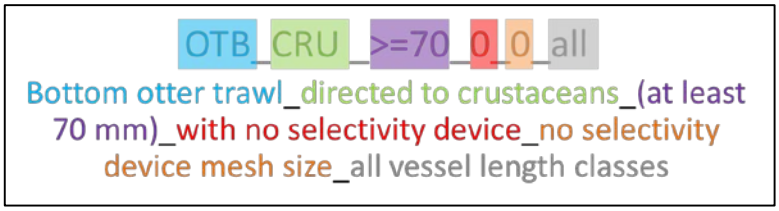


Figure 1. Explanation of the *metier* tag elements; an underscore separates each of the elements.

Metier tag elements

1. GEAR TYPE (gear types available under the DCF are shown in 2010/93/EU App. I and II. Data can be aggregated over more than one category but in this case the most significant gear type is entered).

2. TARGET ASSEMBLAGE CODE (code conforming to target assemblage code of DCF). See 2010/93/EU App. III. Data can be aggregated over more than one category but in this case the most significant *metier* code is entered).

3. MESH SIZE RANGE (mesh size ranges available under the DCF). Data can be aggregated over more than one category but in this case the most significant mesh size range is entered. If, for that gear type, data have been aggregated over all ranges used by a nation, an additional entry "all" can be used.

4. SELECTIVITY DEVICE (types of selectivity device available under the DCF). See 2010/93/EU App. IV.

5. SELECTIVITY DEVICE MESH SIZE (the actual mesh size of any selectivity device is entered, this level is referred to as level 6). If national data are aggregated over several DCF level 6 categories, the métier tag corresponding to the most significant category is chosen e.g., a mobile gear with mesh sizes covering 70-119 mm (combining 70-99 and 100-119) but 70-99 mm is most significant code 70-99 will apply. Exceptions to this general rule are cases where data have been aggregated over all mesh size ranges within the national fleet. In these instances the mesh size is omitted and only a *metier* with level 5 (Gear code_Target assemblage) is used.

6. VESSEL LENGTH CLASS (Member states have indicated national sampling scheme designs do not take account of vessel lengths. Therefore the non-standard entry of "all" or omitted is

currently provided for in InterCatch). The option has been left open for length category specific métier tags to be added in future years if nations begin to sample and raise data independently for different length categories.

Unspecified metiers

Unspecified, data accounting all together to less than 10% of catches and effort, must be coded into a miscellaneous group named either MIS_MIS_0_0_0_HC (Miscellaneous Human Consumption) or MIS_MIS_0_0_0_IBC (Miscellaneous Industrial By-Catch) respectively.

Limited metiers allowed for specific areas

The expert groups WGCSE, WGNSSK and WGMIXFISH-ADVICE allow only specific *metier*s in specific area (see Appendix 1 and 2).

NEAFC Areas

For some deep water and widely distributed stocks catches should be identified if were taken inside or outside the NEAFC regulatory area. If an area is not set up in InterCatch, please write to InterCatchsupport@ices.dk.

Effort data in InterCatch

Effort is recorded in position 11 of the InterCatch header information. Effort is required in kWdays for all species and areas, with the exception for WGBFAS, which records fishing days. If data is imported as one import file per species the effort should be given for the one species, *metier*, area, and quarter. If several species are imported in one import file the effort should be given as a sum of all species, and comment like e.g. "Effort for species: cod, had and whg" should be given in the "InfoStockCoordinator" field. If landing data and discard data are imported in separate files then effort should only be imported once in the landings data, and with a '-9' (indicating no effort, so effort is not duplicated) for effort for the discard.

Units used in InterCatch

Landings, discards, and biological sampling data: As specified in InterCatch Exchange Format
Effort (WGNSSK, WGCSE, WGBIE, WGDEEP, WGHANSA): kW days
Effort (WGBFAS): fishing days (fd)
Year must be entered as four digits, e.g. "2014".

Length and age data to InterCatch

When age or length data are imported it is requested to fill in the following age and length sampling information fields for both landing and discard samples:

- Number samples of length, field: NumSamplesLngt
- Number length measured, field: NumLngtMeas
- Number samples of age, field: NumSamplesAge
- Number age measured, field: NumAgeMeas

The default units of the samples in the record types “NumSamplesLngt” and “NumSamplesAge” of the species data record should be number of hauls, in any doubt contact the stock coordinator. The used unit should be given in the InterCatch species information field named “InfoStockCoordinator”. The typical entry could be: “Number of hauls” but it could also be “Number of trips” or “Number of boxes”. This information allows between-country comparisons of sampling units.

Zero Catch

If there has been no catch for a specific stock from a country, a value of zero has to be entered to InterCatch, to show data is not missing. This is also relevant regarding stocks where there have been a fishery, but some quarters or areas have no catches or fishery. This only applies for stocks where there are catches in e.g. quarter 1, 2 and 4. A catch of zero should be added for quarter 3.

Recreational fisheries data

Recreational fisheries should not be included as commercial landings, if this has been the case in former years. The data should be corrected and the respective Expert Group chair and the stock coordinator (see e-mail addresses Table 1 and Annex 1) should be informed, that the data have been submitted.

Conversions to InterCatch Format

To ease the process of converting the national data into the InterCatch format Andrew Campbell from Ireland has made the conversion tool ‘InterCatchFileMaker’, which converts data manually entered in the ‘Exchange format spreadsheet’ into a file in the InterCatch format. The conversion tool ‘InterCatchFileMaker’ can be downloaded from the ICES webpage for InterCatch exchange format under ‘Format conversion tools’. The download includes a spreadsheet in which the landings and sampling data can be placed; the program then converts the data into the InterCatch format.

1) If InterCatchFilemaker conversion program and the exchange format spreadsheet has been used to convert your data to InterCatch format, then the values in the data field "NumSamlpesAge" in the InterCatch format file must be entered manually.
2) If in some areas and quarters, there are only length samples available (age samples are missing), then it is possible to use ALKs from neighboring areas or quarters to calculate CANUM and WECA for "Species Data" records, before importing data to InterCatch. In this case "-9" must be entered in the data fields of "NumSamlpesAge" and "NumAgeMeas".

For support concerning InterCatch issues please contact: InterCatchsupport@ices.dk.

Submission of discard data

ICES is asked to provide catch advice whenever possible (as opposite of landing advice), therefore discard data for 2014 need to be submitted to InterCatch or directly to ICES Secretariat (accesssions@ices.dk) for all stocks (see Annex 1). For stocks where discard data have NOT previously been submitted, discard data for 2012-14 should be submitted (by stocks) directly to ICES (accesssions@ices.dk) as described above under ”data submission”. If discards estimates by age are available, the data for these stocks should be submitted as total raised numbers discarded at age, and associated mean weights at age, and as total raised discard weight (tonnes) for all ages combined for

2012, 2013 and 2014. If the estimates are not available by age, the total raised discard weight (tonnes) should be supplied for each year.
If discard data are unknown/unavailable there should be no entry for discards. A value of zero should only be entered when zero discards were observed.

To allow Expert Groups to evaluate if the quality of discards data for 2012-2014 for each stock; two tables should be completed by each country supplying discards data (see Appendix 4, Annex 2 and 3). The file "discard sampling programme design" (Annex 2) is a table for providing descriptions of the national discard sampling schemes in 2012 – 2014, and only needs to be filled out for every separate sampling program conducted (if the same program have been running for the entire period only 1 table needs to be filled out) it also includes instructions for completion of both files and an explanation of terminology used. The file "discard sampling quality" (Annex 3) should be provided with the information on several data quality indicators; a separate worksheet should be completed for each stock, year and sampling programme. Both files should be named with the subject and filename as follows: "2015 data call [expert group] [country] discards description" for the file "discard sampling programme design" and "2015 data call [expert group] [country] discards quality" for the "discard sampling quality" file and send to accessions@ices.dk.

Use the provided spreadsheets available in Annex 2 and 3, for more information see Appendix 4.

Expert group specific uploading information

HAWG specification

Herring data (marked with AC in any column of Annex 1) needs to be sent by stock in the exchange format using the so-called Yellow Sheets (Annex 5).

WGDEEP specification

The WGDEEP chair, Gudmundur Thordarson, has develop an R script ('*icdeep.R'* that allows to generate one file for each stock (for given nation/year/subdivision) compared to separate files for each fleet. Contact the Chair of the Expert group (Table 1) to obtain this file.

WGBIE specification

The *metier*s used in this Data call are at level 6, including mesh size range and selectivity device (Appendix 3).

WGMIXFISH-ADVICE specification (WGNSSK, WGCSE, WGBIE)

WGNSSK: All stocks

WGCSE: All stocks

WGBIE: southern hake (hke-soth), northern hake (hke-nrtn), black anglerfish (anb-78ab), white anglerfish (anp-78ab), black anglerfish (anp-8c9a), white anglerfish (anb-8c9a), megrim (mgw-8c9a), four-spot megrim (mgb-8c9a), megrim (mgw-78)

WGMIXFISH undertakes fleet-based mixed fisheries forecasts, and intends to develop advice for the North Sea, Celtic Sea and Iberian waters in 2015. WGMIXFISH operates both at the level of the DCF *metier*, as explained above, AND the level of the fleet segment, consistently with the approach for the collection of economic data. Therefore the *metier* aggregations provided to InterCatch are too broad for WGMIXFISH needs (leading to overly large fleet entries in the mixed fisheries projections, primarily for trawl and beam trawl fleets). To fulfil the additional WGMIXFISH specific need for information by vessel length categories and disaggregated area, we kindly request estimates of landings weight totals and effort in a format similar to previous WGMIXFISH Data calls, with these parameters specified. Area should be at ICES division level, or for *Nephrops* using the InterCatch code for the relevant Functional Unit (see Annex 1, worksheet "ICES area codes").

Information on discard rates is not needed if estimated discard rates are the same for all vessel length categories within a metier, as this information can be taken from InterCatch. However if specific discard rates are available for each vessel length category, than data submitters should provide discard estimates in an extra column.

Experience from previous years has shown that the previous request to append the vessel length category to the *metier* tag was more confusing than helpful, leading to non-standard data sets. Therefore, for this year kept information apart in two separate columns in the .csv files. **Use exactly the same *metier* tags as used for InterCatch** (Annex 1, sheet IC *metier* tags)**.**

A field is included to specifically flag FDF Vessels. As some vessels are involved in FDF *metiers* in one area (e.g. North Sea), while being involved in non-FDF *metiers* in another (e.g. West of Scotland), it is

important to flag these vessels at the fleet level, and not only at the *metier* level, to allow separate identification of these vessels. Please leave the field blank for the non FDF fleet, and write "FDF" for the FDF flagged vessels.

Additional information to WGMIXFISH by vessel length categories should be sent electronically in .csv files to accessions@ices.dk, clearly indicated in the subject and file name "2015 WGMIXFISH-ADVICE" [country] [*metier*_catch/*metier*_effort]".

There should be two comma separated (.csv) files:
• A single .csv file reporting *metier* and length disaggregated effort; and,
• A single .csv file reporting *metier* and length disaggregated catch

1.) The CSV 'effort' file (see Annex 1, sheet WGMIXFISH-effort) should be supplied containing the following entries:

ID, Country, Year, Quarter, InterCatch *Metier* Tag, Vessel Length Category, FDF vessel flag, Area, **kW_Days**, Days at Sea, No Vessels

Example:

ID	Country	Year	Quarter	Intercatch Metier Tag	Vessel Length Ca	FDF vesse	Area	KW_Days	Days At Sea	No Vessel
dnk1	DK	2013	1	OTB_DEF_>=120_0_0_all	<10m		IV	1000	100	10
dnk2	DK	2013	1	OTB_DEF_>=120_0_0_all_FDF	10<24m	FDF	IV	1000	100	10
dnk3	DK	2013	1	OTB_DEF_>=120_0_0_all	10<24m	FDF	VIa	1000	100	10

2.) The CSV 'catch' file (see Annex 1, sheet WGMIXFISH-Catch) should be supplied containing the following entries:

ID, Country, Year, Quarter, InterCatch *Metier* Tag, Vessel Length Category, FDF vessel flag, Area, Species, Landings (tonnes), Value (average price*landings at first sale, expressed in Euros).

Example:

ID	Country	Year	Quarter	Intercatch Metier Tag	Vesssel Length C	FDF vesse	Area	Species	Landings	Value
dnk1	DK	2013	1	OTB_DEF_>=120_0_0_all	<10m		IV	COD	100	1000
dnk2	DK	2013	1	OTB_DEF_>=120_0_0_all_FDF	10<24m	FDF	IVb33	NEP	100	1000
dnk3	DK	2013	1	OTB_DEF_>=120_0_0_all	10<24m	FDF	IVb33	NEP	100	1000

Note that:

• Vessel length splits are only *required* for *metier* tags starting with OTB or TBB.

• Vessel length categories are: <10m, 10<24m, 24<40m, >=40m (Please use exactly these vessel length codes)

Sums of effort and landings across *metier* tags disaggregated by vessel length should equal the corresponding totals submitted to InterCatch.

WGBFAS specifications

Requested data

• Raising input values and guidelines for hole-filling - 2014 in a spreadsheet (Figure 2 and Annex 4)

• If estimates of recreational fishery are available then the data should be provided in EXCEL sheets directly to accessions@ices.dk for the respective stock;

• Discard survival rates **should not** be accounted for by the countries, when uploading the data

• National TAC for present year and intermediate year by stock

Units: Numbers (in `000) and mean weight (in grams) by age per fleet/*metier* (active, passive), quarter, year, Subdivision, country for landing as well as discards.

National discard data processing of flounder, dab, brill, turbot and plaice (by-catch species)

Raising input values. If discard data for flounder, dab, brill, turbot and plaice (by-catch species) cannot be raised by landing of the respective species (countries may have discard in strata where no landings occur), it is suggested instead to use the weight of all species landed in the stratum to estimate the weight of the discard as specified in the formula below.

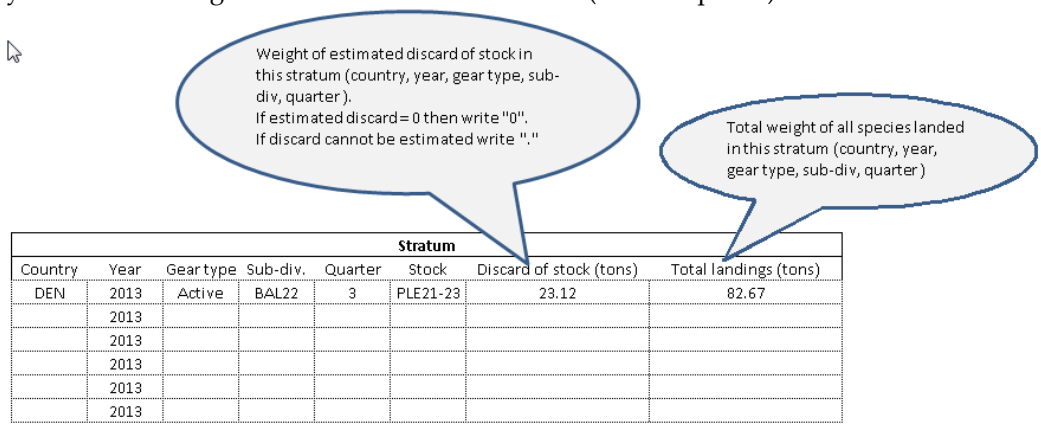
Formula for discards estimation of **flounder, dab, brill, turbot and plaice:**

$$\text{Discard Rate}_{\text{Time,SD,fleet segment,Species}} = \frac{\sum \text{Weight of discard}_{\text{Trip,Haul,Time,SD,Fleet segment,Species}}}{\sum \text{Weight of landing}_{\text{Trip,Haul,Time,SD,Fleet segment}}}$$

$$\text{Discard (ton)}_{\text{Time,SD,Fleet segment,Species}} = \text{Landings (ton)}_{\text{Time,SD,fleet segment}} \times \text{Discard Rate}_{\text{Time,SD,fleet segment,Species}}$$

Alternative raising procedures based on effort can be used as well if considered appropriate. The method, however, should be communicated to the stock coordinator.

For target species (herring, sprat, cod, sole, plaice) the **same raising methods** can be applied as used in previous years or according to 2015 benchmarks decisions (cod and plaice).



Stratum							
Country	Year	Gear type	Sub-div.	Quarter	Stock	Discard of stock (tons)	Total landings (tons)
DEN	2013	Active	BAL22	3	PLE21-23	23.12	82.67
	2013						
	2013						
	2013						
	2013						
	2013						

!!! One data line for each stratum where fishing has taken place.

Figure 2. Format for submitting raising factor of by-catch species (provided in Annex 4).

National data processing of cod, flounder, dab, brill, turbot, plaice, herring, sprat and sole (All WGBFAS stocks)

Hole filling guideline file (only for Baltic and Kattegat stocks). When no discard weight or no biological information is available for discard or landing in a given stratum – hole filling should **not** be conducted by the data submitter but instead raw data should be submitted with a guideline to the stock coordinator on how to conduct the data processing. If no suitable source is available on the national level or the submitter does not have any suggestions, this should also be indicated (see format description figure 3 and Annex 4). The guideline should include information on the source stratum (SD, quarter, fleet) for which data should be used to fill in the data gaps in the target stratum.

Parameters defining data gab

Parameters defining data to borrow

Target stratum						Source stratum					
T_Country	T_Year	Gear type	T_Sub-div.	T_Quarter	T_Stock	S_Country	S_Year	Gear type	S_Sub-div.	S_Quarter	S_Stock
DEN	2013	Active	BAL22	3	PLE21-23	DEN	2013	Active	BAL22	4	PLE21-23
	2013						2013				
	2013						2013				
	2013						2013				
	2013						2013				
	2013						2013				
	2013						2013				
	2013						2013				

!!! One data line for each stratum where data gab ocours.

Figure 3. Format for hole filling suggestions (provided in Annex 4).

WGBFAS stratifications

All data should be stratified by:

- Quarter,
- ICES Sub-division,
- Fleet segment to be considered are "Passive" and "Active" or "All"* (= combined), or as specified by stock (see fleet segment described above).
  NOT to use "TestA","TestB","TestC", "trawl", "LLS" or similar). Particularly,
  1. For **sprat** fleet segments to be considered are; "Pelagic trawlers" for all trawl gears and "Passive gears" for all passive gears.
  2. For **Herring 30** fleet segments to be considered are; "BOT", "BT-Fi-Bal", "GIL", "Passive gears", "PEL", "Pelagic trawl", "Trapnet", "Winter Seine"

*Fleet segment "All" should only be used if no other alternatives is possible

The same stratification should be used for both catch and additional supporting files for a given *stratum* (guidelines files and raising input values file).

The combined fleet segment should only be used when it is not possible to split the InterCatch data into *Active* and *Passive* in a given *stratum*.

WGBFAS Data submission formats to be used

Catch (landings, discards):	InterCatch exchange format (HI, SI) (uploaded)
Biological information:	InterCatch exchange format (SD) (uploaded)
Effort (data year = 2014):	InterCatch exchange format (HI) (uploaded)
Raising factors for none target species:	As specified in Figure 2, Annex 4
Hole filling guideline:	As specified in Figure 3, Annex 4

Appendix 1. Gear coding (as defined under the DCF), made available for WGNSSK and WGMIXFISH-ADVICE and are based on information from countries fishing in areas IIIaN, IV and VIId about significant fishing gears.

AREA	GEAR TYPE	AVAILABLE METIER TAGS FOR FULLY DOCUMENTED FISHERIES ADD "_FDF" AFTER LENGTH CLASS
IIIaN (Skagerrak) Area Type = SubDiv		TBB_CRU_16-31_0_0_all
		TBB_DEF_90-99_0_0_all
		TBB_DEF_>=120_0_0_all
	Otter trawl	OTB_CRU_16-31_0_0_all
		OTB_CRU_32-69_0_0_all
		OTB_CRU_32-69_2_22_all
		OTB_CRU_70-89_2_35_all
		OTB_CRU_90-119_0_0_all OTB_CRU_90-119_0_0_all_FDF
		OTB_DEF _>=120_0_0_all OTB_DEF _>=120_0_0_all_FDF
	Seines	SDN_DEF_>=120_0_0_all SDN_DEF_>=120_0_0_all_FDF
		SSC_DEF_>=120_0_0_all SSC_DEF_>=120_0_0_all_FDF
	Gill, trammel, drift nets	GNS_DEF_100-119_0_0_all
		GNS_DEF_120-219_0_0_all GNS_DEF_120-219_0_0_all_FDF
		GNS_DEF_>=220_0_0_all
		GNS_DEF_all_0_0_all
		GTR_DEF_all_0_0_all
	Lines	LLS_FIF_0_0_0_all LLS_FIF_0_0_0_all_FDF
	Others (Human consumption)	MIS_MIS_0_0_0_HC
	Others (Industrial bycatch)	MIS_MIS_0_0_0_IBC
IIIaS (Kattegat) Area Type = SubDiv	Others (Human consumption)	MIS_MIS_0_0_0_HC
IV – (North Sea) Area type = SubArea & VIId (Eastern Channel) Area Type = Div **&** **VIa (for saithe only)** **Area Type = Div**		TBB_CRU_16-31_0_0_all
		TBB_DEF_70-99_0_0_all
		TBB_DEF_>=120_0_0_all
	Otter trawl	OTB_CRU_16-31_0_0_all
		OTB_CRU_32-69_0_0_all
		OTB_SPF_32-69_0_0_all
		OTB_CRU_70-99_0_0_all OTB_CRU_70-99_0_0_all_FDF
		OTB_ DEF _>=120_0_0_all OTB_DEF _>=120_0_0_all_FDF
	Seines	SDN_DEF_>=120_0_0_all SDN_DEF_>=120_0_0_all_FDF
		SSC_DEF_>=120_0_0_all SSC_DEF_>=120_0_0_all_FDF
	Gill, trammel, drift nets	GNS_DEF_100-119_0_0_all
		GNS_DEF_120-219_0_0_all

AREA	GEAR TYPE	AVAILABLE METIER TAGS FOR FULLY DOCUMENTED FISHERIES ADD "_FDF" AFTER LENGTH CLASS
		GNS_DEF_120-219_0_0_all_FDF
		GNS_DEF_>=220_0_0_all
		GNS_DEF_all_0_0_all
		GTR_DEF_all_0_0_all
	Lines	LLS_FIF_0_0_0_all LLS_FIF_0_0_0_all_FDF
	Pots and Traps	FPO_CRU_0_0_0_all
	Others (Human consumption)	MIS_MIS_0_0_0_HC
	Others (Industrial bycatch)	MIS_MIS_0_0_0_IBC

Appendix 2. Gear coding (as defined under the DCF), made available for WGCSE in specific areas. Note that the vessel length category (currently '_all') must appear at the end of every *metier* tag except the MIS_MIS metier tags.

AREA	GEAR TYPE	AVAILABLE METIER TAGS
West of Scotland (VIa) and Rockall (VIb)	Pots and traps	FPO_CRU_0_0_0_all
	Gillnets	GNS_DEF_>=220_0_0_all
	Longline	LLS_FIF_0_0_0_all
	Otter trawl	OTB_CRU_70-99_0_0_all
		OTB_DEF_>=120_0_0_all
		OTB_DEF_100-119_0_0_all
		OTB_DWS_>=120_0_0_all
		OTB_DWS_100-119_0_0_all
		OTB_MOL_>=120_0_0_all
		OTB_MOL_100-119_0_0_all
	Midwater trawl	OTM_DEF_32-69_0_0_all
		OTM_SPF_32-69_0_0_all
	Seines	SSC_SPF_0_0_0_all
	Miscellaneous	MIS_MIS_0_0_0_HC MIS_MIS_0_0_0_IBC
Irish Sea (VIIa)	Pots and traps	FPO_CRU_0_0_0_all
		FPO_MOL_0_0_0_all
	Gillnets	GNS_DEF_120-219_0_0_all
		GNS_DEF_90-99_0_0_all
	Otter trawl	OTB_CRU_70-99_0_0_all
		OTB_DEF_70-99_0_0_all
		OTB_MOL_70-99_0_0_all
	Beam trawl	TBB_DEF_70-99_0_0_all
	Miscellaneous	MIS_MIS_0_0_0_HC MIS_MIS_0_0_0_IBC
West of Ireland (VIIbc) and Celtic Sea slope (VIIjk)	Gillnets	GNS_DEF_>=220_0_0_all
		GNS_DEF_100-119_0_0_all
		GNS_DEF_120-219_0_0_all
		GNS_DWS_100-119_0_0_all
	Otter trawl	OTB_DEF_100-119_0_0_all
		OTB_DEF_70-99_0_0_all
		OTB_DWS_100-119_0_0_all
		OTB_MOL_100-119_0_0_all
		OTB_MOL_70-99_0_0_all
		OTB_SPF_100-119_0_0_all
		OTB_CRU_100-119_0_0_all
	Midwater trawl	OTM_SPF_16-31_0_0
		OTM_SPF_32-69_0_0_all
		OTM_DEF_100-119_0_0_all
		OTM_LPF_70-99_0_0_all
		OTM_LPF_100-119_0_0_all
	Miscellaneous	MIS_MIS_0_0_0_HC MIS_MIS_0_0_0_IBC
Celtic Sea Shelf	Pots and traps	FPO_CRU_0_0_0_all

AREA	GEAR TYPE	AVAILABLE METIER TAGS
(VIIfgh)		FPO_MOL_0_0_0_all
	Gillnets	GNS_DEF_>=220_0_0_all
		GNS_DEF_120-219_0_0_all
		GNS_SPF_10-30_0_0_all
		GTR_DEF_>=220_0_0_all
	Lines	LLS_FIF_0_0_0_all
	Otter trawl	OTB_CRU_100-119_0_0_all
		OTB_CRU_70-99_0_0_all
		OTB_DEF_100-119_0_0_all
		OTB_DEF_70-99_0_0_all
		OTB_DWS_100-119_0_0_all
		OTB_MCD_70-99_0_0_all
		OTB_MOL_100-119_0_0_all
		OTB_MOL_70-99_0_0_all
	Midwater trawl	OTM_DEF_32-69_0_0_all
		OTM_SPF_32-69_0_0_all
	Seines	SSC_SPF_0_0_0_all
		SSC_DEF_100-119_0_0_all
		SSC_DEF_70-99_0_0_all
	Beam trawl	TBB_DEF_70-99_0_0_all
	Miscellaneous	MIS_MIS_0_0_0_HC MIS_MIS_0_0_0_IBC
Western Channel (VIIe)	Pots and traps	FPO_CRU_0_0_0_all
		FPO_MOL_0_0_0_all
	Gillnets	GNS_CRU_0_0_0_all
		GNS_DEF_>=220_0_0_all
		GNS_DEF_100-119_0_0_all
		GNS_DEF_120-219_0_0_all
		GTR_CRU_0_0_0_all
		GTR_DEF_>=220_0_0_all
		GTR_DEF_120-219_0_0_all
	Lines	LLS_DEF_0_0_0_all
		LLS_FIF_0_0_0_all
	Otter trawl	OTB_CRU_100-119_0_0_all
		OTB_CRU_70-99_0_0_all
		OTB_DEF_100-119_0_0_all
		OTB_DEF_70-99_0_0_all
		OTB_DWS_100-119_0_0_all
		OTB_MOL_100-119_0_0_all
		OTB_MOL_70-99_0_0_all
		OTB_SPF_70-99_0_0_all
	Midwater trawl	OTM_SPF_16-31_0_0
		OTM_SPF_32-69_0_0_all
		OTM_DEF_70-99_0_0_all
		OTM_DEF_100-119_0_0_all
	Seines	SSC_SPF_0_0_0_all
		SSC_DEF_70-99_0_0_all

AREA	GEAR TYPE	AVAILABLE METIER TAGS
	Beam trawl	TBB_DEF_70-99_0_0_all
	Miscellaneous	MIS_MIS_0_0_0_HC MIS_MIS_0_0_0_IBC

Appendix 3. Gear coding (as defined under the DCF), currently available for WGBIE in specific areas.

MÉTIER LEVEL 6	DESCRIPTION
DRB_MOL_0_0_0_all	Boat dredge, molluscs, no selectivity devise, all vessels
FPO_CRU_0_0_0_all	Pots and Traps, Crustaceans, no selectivity device, all vessels
GN_DEF_100-109_0_0_all	Gill nets, demersal fish, mesh size 100-109mm, no selectivity device, all vessels
GNS_DEF_>=100_0_0	Set gillnet, Demersal fish, mesh size more than 100mm, no selectivity device
GNS_DEF_>=220_0_0_all	Set gillnet, Demersal fish, mesh size more than 220mm, no selectivity device, all vessels
GNS_DEF_>=220_0_0_all_FDF	Set gillnet, Demersal fish, mesh size >=220mm, no selectivity device, all vessels, Fully Documented Fisheries
GNS_DEF_100-119_0_0_all	Set gillnet, Demersal fish, mesh size 100-119mm, no selectivity device, all vessels
GNS_DEF_100-219_0_0	Set gillnet directed to demersal fish (100-219 mm)
GNS_DEF_10-30_0_0_all	Set gillnet, Demersal fish, mesh size 10-30mm, no selectivity device, all vessels
GNS_DEF_120-219_0_0_all	Set gillnet, Demersal fish, mesh size 120-219mm, no selectivity device, all vessels
GNS_DEF_120-219_0_0_all_FDF	Set Gillnet, Demersal Fish, Mesh size 120-219, All Vessels, No grid selectivity, Fully Documented Fisheries
GNS_DEF_45-59_0_0	Set gillnet directed to demersal fish (45-59 mm)
GNS_DEF_60-79_0_0	Set gillnet, Demersal fish, mesh size 60-79 mm, no selectivity device
GNS_DEF_80-99_0_0	Set gillnet directed to demersal fish (80-99 mm)
GNS_DEF_all_0_0_all	Set gillnet, Demersal fish, all mesh sizes, no selectivity device, all vessels
GTR_DEF_60-79_0_0	Trammel nets, Demersal fish, mesh size 60-79mm, no selectivity device
GTR_DEF_all_0_0_all	Trammel nets, Demersal fish, all mesh sizes, no selectivity device, all vessels
LHM_DEF_0_0_0 LLS_DEF_0_0_0	Hand lines directed to demersal fish Set longline directed to demersal fish
LLS_DEF_0_0_0_all	Set longlines, Demersal fish, mesh size not specified, no selectivity device, all vessels.
LLS_FIF_0_0_0_all	Set longlines, Finfish, no selectivity device, all vessels
MIS_DEF_all_0_0_all	Demersal fisheries, Demersal fish, mesh size any, no selectivity device, all vessels
MIS_MIS_0_0_0_IBC	Demersal fisheries - Miscellaneous Industrial bycatch
MIS_MIS_All_0_0_All	Demersal fisheries - Miscellaneous
OTB_CRU _>=70_0_0	Bottom otter trawl directed to crustaceans (at least 70 mm)
OTB_CRU_100-119_0_0_all	Otter trawl, Crustaceans, mesh size 100-119, no selectivity device, all vessels
OTB_CRU_32-69_0_0_all	Otter trawl, Crustaceans and Demersal fish, mesh size 32-69, no selectivity device, all vessels
OTB_CRU_32-69_2_22_all	Otter trawl, Crustaceans, mesh size 32-69, selectivity device - grid 22mm, all vessels
OTB_CRU_70-89_2_35_all	Otter trawl, Crustaceans, mesh size 70-89, selectivity device - grid 35mm, all vessels
OTB_CRU_70-99_0_0	Bottom otter trawl directed to crustaceans (70-99 mm)
OTB_CRU_70-99_0_0_all	Otter trawl, Crustaceans and Demersal fish, mesh size 70-99, no selectivity device, all vessels
OTB_CRU_90-119_0_0_all	Otter trawl, Crustaceans and Demersal fish, mesh size 90-119, no selectivity device, all vessels
OTB_CRU_90-119_0_0_all_FDF	Bottom otter trawl, Crustaceans, mesh Size 90-119, Selectivity Device - none, All vessel types, Fully Documented Fisheries
OTB_CRU_All_0_0_All	Bottom otter trawl, Crustaceans, all mesh sizes, no selectivity devise, all vessel types
OTB_DEF _100-119_0_0	Bottom otter trawl directed to demersal fish (100-119 mm)
OTB_DEF_>=120_0_0_all	Otter trawl, Demersal fish and Crustaceans, mesh size more than 120mm, no selectivity device, all vessels
OTB_DEF_>=120_0_0_all_FDF	Bottom otter trawl, Demersal fish, Mesh Size 120 or greater, Selectivity Device - none, All vessel types, Fully Documented Fisheries
OTB_DEF_>=55_0_0	Bottom otter trawl directed to demersal fish (at least 55 mm)
OTB_DEF_>=70_0_0	Bottom otter trawler targeting demersal fish with a mesh size > 70 mm

MÉTIER LEVEL 6	DESCRIPTION
OTB_DEF_100-119_0_0_all	Bottom otter trawler targeting demersal fish with a mesh size 100-119 mm
OTB_DEF_70-99_0_0	Bottom otter trawl directed to demersal fish (70-99 mm)
OTB_DEF_All_0_0_All	Bottom otter trawl directed to demersal fish, all mesh sizes, no selectivity devise
OTB_MCD_>=55_0_0	Otter trawl, Mixed crustaceans and demersal fish, mesh size more than 55mm, no selectivity device.
OTB_MCF_>=70_0_0	Otter trawler targeting cephalopods and fish
OTB_MOL_70-99_0_0_all	Otter trawl, Molluscs, mesh size 70-99mm, no selectivity device, all vessels
OTB_MPD _>=70_0_0	Bottom otter trawl directed to mixed pelagic and demersal fish (at least 70 mm)
OTB_MPD_>=55_0_0	Bottom otter trawl directed to pelagic and demersal fish (at least 55 mm)
OTB_SPF_32-69_0_0_all	Otter Bottom trawl, Small pelagic fish, 32-69 mm, no selectivity devise, all vessels
OTM_DEF_100-119_0_0_all	Midwater otter trawl, Demersal species, mesh size 100-119mm, no selectivity device, all vessels
OTM_DEF_32-54_0_0_all	Midwater otter trawl, Demersal species, mesh size 32-54mm, no selectivity device, all vessels
OTM_DEF_55-69_0_0_all	Midwater otter trawl, Demersal species, mesh size 55-69mm, no selectivity device, all vessels
OTM_DEF_70-99_0_0_all	Midwater otter trawl, Demersal species, mesh size 70-99mm, no selectivity device, all vessels
OTM_DEF_80-89_0_0_all	Midwater otter trawl, Demersal species, mesh size 80-89mm, no selectivity device, all vessels
OTT_CRU _>=70_0_0	Multi-rig otter trawl directed to crustaceans (at least 70 mm)
OTT_DEF _>=70_0_0	Multi-rig otter trawl directed to demersal fish (at least 70 mm)
OTT_DEF_>=120_0_0_all	Multi-rig otter trawl, demersal fish, mesh size more than 120mm, no selectivity device, all vessels
OTT_DEF_100-119_0_0_all	Multi-rig otter trawl, demersal fish, mesh size 100-119mm, no selectivity device, all vessels
OTT_DEF_16-31_0_0_all	Multi-rig otter trawl, demersal fish, mesh size 16-31mm, no selectivity device, all vessels
OTT_DEF_80-89_0_0_all	Multi-rig otter trawl, demersal fish, mesh size 80-89mm, no selectivity device, all vessels
OTT_DEF_90-99_0_0_all	Multi-rig otter trawl, demersal fish, mesh size 90-99mm, no selectivity device, all vessels
PS_SPF_0_0_0	Purse seine, Small pelagic fish, no selectivity device.
PTB_DEF _>=70_0_0	Bottom pair trawl directed to demersal fish (at least 70 mm)
PTB_DEF_>=120_0_0_all	Pair bottom trawl, demersal fish, mesh size more than 120mm, no selectivity device, all vessels
PTB_DEF_>=70_0_0	Pair bottom trawler targeting demersal fish
PTB_DEF_80-89_0_0_all	Pair bottom trawl, demersal fish, mesh size 80-89mm, no selectivity device, all vessels
PTB_MPD_>=55_0_0	Bottom pair trawl directed to mixed pelagic and demersal fish (at least 55 mm)
PTM_DEF_90-104_0_0	Midwater pair trawl, demersal fish, mesh size 90-104 mm, no selectivity device
SDN_DEF_>=120_0_0_all	Anchored seine, Demersal fish, mesh size more than 120mm, no selectivity device, all vessels
SDN_DEF_>=120_0_0_all_FDF	Anchored Seine, Demersal Fish, Mesh Size 120 or above, Selectivity Device - none, All vessels, Fully Documented Fisheries
SSC_DEF_>=120_0_0_all	Fly shooting seine, Demersal fish, mesh size more than 120mm, no selectivity device, all vessels
SSC_DEF_>=120_0_0_all_FDF	Fly shooting seine, Demersal Fish, Mesh Size 120 or greater, Selectivity Device - none, All vessels, Fully Documented Fisheries
SSC_DEF_100-119_0_0_all	Fly shooting seine, Demersal fish, mesh size 100-119mm, no selectivity device, all vessels.
SSC_DEF_80-89_0_0_all	Fly shooting seine, Demersal fish, mesh size 80-89mm, no selectivity device, all vessels.
SSC_DEF_All_0_0_All	Fly shooting seine, , Demersal fish, all mesh sizes, no selectivity, all vessels
TBB_CRU_16-31_0_0_all	Beam trawl, Crustaceans, mesh size 16-31mm, no selectivity device, all vessels

MÉTIER LEVEL 6	DESCRIPTION
TBB_DEF_<16_0_0_all	Beam trawl, Demersal fish, mesh size 16mm or less, no selectivity device, all vessels
TBB_DEF_>=120_0_0_all	Beam trawl, Demersal fish, mesh size more than 120, no selectivity device, all vessels
TBB_DEF_100-119_0_0_all	Beam Trawl, mesh size 100-119mm
TBB_DEF_70-99_0_0_all	Beam trawl, Demersal fish, mesh size 70-99, no selectivity device, all vessels
TBB_DEF_90-99_0_0_all	Beam trawl, Demersal fish, mesh size 90-99, no selectivity device, all vessels
TBB_DEF_all_0_0_all	Beam trawl, Demersal fish, all mesh sizes, no selectivity, all vessels

Appendix 4. Instructions for completing the "Discard sampling quality" and "Discard programme design" file (Annex 2 and 3) file describing national discards sampling programmes

There are two files for each country to complete, to give each ICES stock assessment Expert Group some basic information to help evaluate the quality of new (and existing) discards estimates that are included in this year's ICES assessment Expert Groups Data call. The two files are included with this Data call (Annex 2 and 3). Ensure these tables are completed by your national experts responsible for the design and implementation of the sampling schemes and analysis of the data and submitted to accessions@ices.dk as described above.

- The "Discard sampling program design" table (illustrated in Table 2 below, with example entries) which provides text describing the sampling programme and how it has changed over the last three years, highlighting any issues with design that could lead to large (and potentially varying) bias in time series of discards estimates. This table should refer to the sampling programme that is used for the defined set of stocks covered by the Data call. If an individual country has more than one sampling programme applicable to different stocks and areas covered by the Data call, the Word table has to be filled out for every programme. The final column is a partial self-evaluation of bias, using the guidelines given in Table 3 below. The attached full version of the Word file contains instructions for completing both of the data quality tables, and a detailed glossary of terms used.

- The "Discard sampling quality" Excel file captures, on a stock-by-stock basis, some basic statistics about the amount of sampling that has taken place, and includes some simple data quality indicators (illustrated in Table 4 below with some example entries) and a box to add any additional comments regarding the quality and utility of the data for estimating discards of the stock.

It is emphasized that this is a short-term exercise for fisheries assessment Expert Groups in 2015 to evaluate where discards estimates can be used to give total catch advice for 2016. It is not a substitute for an in-depth evaluation of data quality as would be expected for a benchmark data compilation. ICES expert groups on fishery sampling (SGPIDS 2011, SGPIDS 2012, SGPIDS 2013, WKPICS1, WKPICS2, WKPICS3) have explored detailed quality assurance reporting and these reports should be consulted for further guidance on data quality evaluation.

The self-assessment of potential bias is therefore a crude substitute for the more detailed analysis of bias that is needed, but is intended as a "traffic lights" indicator to help the assessment Experts Groups respond as consistently as possible to the information on data quality as described below:

1: Least potential for bias – Assessment Expert Group can be confident in using the discard data (provided there are sufficient samples for a given stock, based on entries in the "Discard sampling quality" file)

2: Some issues with potential bias – expert group should use discard data with some caution, and comment on the quality issues with the data.

3: Large potential for bias – expert group should consider carefully before presenting and using the discard data, or exclude the data for all or part of the time series from assessments, and comment on the quality issues with the data.

The "Discard sampling quality" spreadsheet (Annex 3) includes additional indicators related to sampling intensity and provides additional information related to precision. This does not include information at the scale of individual strata, but the final column provides an opportunity to state if there are problems with missing or poorly sampled strata.

The assessment expert groups may carry out additional checks on the internationally aggregated discards data, for example internal consistency of age compositions and residual patterns around model fits to data for any stocks where discards are included in the assessment model.

Table 2. Example of the "Discard sampling programme design" table to be completed for each discard sampling programme in a country (Annex 2).

ICES 2015 Assessment Expert Groups summary of national discards sampling programme design

Examples are included in the table – replace with national information with similar level of detail, showing changes over time in the programme.

Country:..... **ICES Assessment Working Group:.....**

Sampling programme name:.....

Stocks covered by programme : .....

	Sampling frame		Survey design and sample selection		Estimation procedures			Self evaluation of potential for bias (1-3 where 1 is the best)[2]
Years/ time periods	Vessel sizes and gears covered	ICES Divisions covered	Describe Survey design and vessel selection	Stratification	Raising procedure for stratum estimates for a stock	Methods to impute missing stratum estimates "borrowing procedures"	Variance estimates	
2012	All national registered vessels >10m using towed demersal otter trawls, beam trawls and seines;	IVa,b,c	Non-random selection of vessels on opportunistic basis to meet sampling quotas by stratum.	4 x quarter 3 x area (divisions) 3 x gear (otter; beam; seine)	Trip-raised estimates summed for sampled vessels in stratum, and then raised to total fleet using reported total fleet landings of stock and reported landings of stock by sampled vessels.	Discard rates for "nearest neighbour" sampled strata applied to reported landings of stock for missing strata. Decision on which strata to impute from is based on sample sizes and expert judgment.	Analytical	3
2013	As above	As above	As above	As above	As above	As above	As above	3
2014	Vessels 7 – 9.9 m included; vessels using fixed/drift nets included.	IV a,b,c and VIId	Stratified random selection of vessels, with evenly spread sampling effort across year.	2 x area	Trip-raised estimates summed for sampled vessels in stratum, and then raised to total fleet using sampling probabilities (total number of trips reported for fleet divided by numbers of sampled trips).	Stratum estimates for sampled strata are combined and raised to all reported landings including missing strata.	Bootstrap	1

[2] See guidelines below for completion of the tables.

Name of person completing table:		Date:	

Table 3. Guidelines for the "Discards data quality" table for self-evaluation of potential bias.

Guidance for completion of final column in Word Table "Self evaluation of potential for bias". *(See glossary below for terminology and guidelines)*

Design of survey	National sampling frame coverage	How representative are the sampled trips in each stratum?	Score
Probability-based sampling design with selection of vessels that is random or close to random.	Frame covers most vessels in total national population of active vessels that discard the stocks covered by the assessment WG.	Diagnostics show that sampled trips are representative of the overall national population of vessels, or data can be post-stratified and re-weighted to be representative.	1
		Diagnostics show that sampled trips are consistently and markedly different from the population, and this cannot be corrected by re-weighting, or no diagnostics have been scrutinised.	3
	Relatively large numbers of vessels are excluded from the frame (e.g. small vessels; vessels in remote ports).	Diagnostics show that sampled trips are representative of the overall national population of vessels, or data can be post-stratified and re-weighted to be representative.	2
		Diagnostics show that sampled trips are consistently and markedly different from the population, and this cannot be corrected by re-weighting, or no diagnostics have been scrutinised.	3
Ad-hoc sampling design where vessels are selected in a non-random, opportunistic or subjective way	Frame covers most vessels in total national population of active vessels that discard the stocks covered by the assessment WG.	Diagnostics show that sampled trips are representative of the overall national population of vessels, or data can be post-stratified and re-weighted to be representative.	2
		Diagnostics show that sampled trips are consistently and markedly different from the population, and this cannot be corrected by re-weighting, or no diagnostics have been scrutinised.	3
	Relatively large numbers of vessels are excluded from the frame (e.g. small vessels).	Diagnostics show that sampled trips are representative of the overall national population of vessels, or data can be post-stratified and re-weighted to be representative.	2
		Diagnostics show that sampled trips are consistently and markedly different from the population, and this cannot be corrected by re-weighting, or no diagnostics have been scrutinised.	3
Other designs	Special case of very high observer coverage or proven reliable self sampling coverage of most of fleet		1
	A relatively small subset of vessels is selected as a reference fleet and each one is sampled at intervals throughout year.	Diagnostics show that sampled trips are representative of the overall national population of vessels, or data can be post-stratified and re-weighted to be representative.	2
		Diagnostics show that sampled trips are consistently and markedly different from the population, and this cannot be corrected by re-weighting, or no diagnostics have been scrutinised.	3

Table 4. "Discards data quality" spreadsheet for quality indicators to be supplied by each country for each stock and sampling programme, with some example entries (Annex 3).

ICES 2015 Assessment Expert Groups summary of national discards sampling quality by stock

(some example entries are included and should be deleted)

Country:
Sampling programme name: *(link to Word table)*
Species: *(e.g. grey gurnard)*
Stock area: *(e.g. Subarea VI and Divisions VIIa–c and e–k)*
Stock code: *(e.g. gug-celt)*

Overall assessment by national scientists of reliability of the survey for this stock

Data for 2014 considered good quality due to improved design and coverage; data for 2012 and 2013 are much less reliable and should be used with caution

Year	Total No. fishing trips sampled in strata covering stock area *	No. sampled trips where fish of this stock was discarded	No. of trips where discards of this stock were measured for length	No. of trips where discards of this stock were aged	Raised discards estimate (total weight , tonnes)	RSE of raised estimate **	Refusal rate (%)***	Self evaluation of potential design bias (from final column in Word table)	Additional comments (e.g. problems with missing stratum data)****
2012	50	25	10	0	120	0.7	15	3	No beam trawl samples in Q3 & Q4
2013	60	28	20	0	250	0.6	10	3	
2014	120	55	50	0	100	0.5	5	1	

* Only include trips using gears that could catch this species, and where all or part of the trip was in the stock area (e.g. for sprats, exclude longline trips!)
**RSE (relative standard error) of raised total discards estimate $\hat{y}$, i.e. RSE = SE ($\hat{y}$)/$\hat{y}$
*** Refusal rate is a number indicating the percentage of the vessels approached that declined to have observers on board
**** If one or more important strata for the species were intended to be sampled but were not sampled for any reason, this could lead to bias. Highlight years with such problems.