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Scientific, Technical and Economic Committee for Fisheries (STECF)

Report of the Working Group on the implementation of the collection of indicators for the fleet based approach and establishment of regional sampling designs for the new data collection framework (SGRN-SGECA 08-01)

Joint Working Group on research needs (SGRN) and on Economic affairs (SGECA), Scientific, Technical and Economic Committee for Fisheries (STECF)

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JOINT SUBGROUP ON RESEARCH NEEDS (SGRN) AND ON ECONOMIC AFFAIRS (SGECA) OF THE SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF)

STECF OPINION EXPRESSED DURING THE PLENARY MEETING (PLEN-08-01)

14-18 APRIL 2008, HAMBURG

1.   Introduction

STECF is requested to review the report of the SGECA/SGRN-08-01 meeting of February 4-8, 2008 (Nantes), evaluate the findings and make any appropriate comments and recommendations.

2.   Background

The EC Data Collection Regulation (DCR) has been implemented since 2001 with the aim of harmonising the collection of fisheries biological and economic data across the Member States. Despite the recognised benefits brought about by the DCR, the scientific community and managers acknowledged that the current procedure of collecting biological data on a stock basis and economic data on a fleet based did not favour the provision of relevant inputs to fishery-based management advice. The review of the DCR started in 2005 was an opportunity to integrate the fishery-based approach in the future collection of bio-economic data.

In 2001 and 2002, the European Commission requested ICES to start compiling catch-at-age data disaggregated by fishery that would be more suitable to perform fishery-based forecasts. ICES reacted by establishing in 2003 and 2004 the Study Group for the Development of Fishery-Based Forecasts (SGDFF). The two major tasks of SGDFF were to provide fleet and fishery definitions and advise on a database structure and data exchange format for the mixed-species and multi-fisheries forecasts. Since 2003, WGNSSK (the Working Group for the assessment of fisheries in the North Sea and Skagerrak) has compiled catch-at-age data disaggregated by country and by fishery, using the format defined by SGDFF, and has provided preliminary mixed-fisheries forecasts. The Advisory Committee for Fishery Management (ACFM) however, rejected the use of MTAC for advisory purposes, mostly based on the argument that the data were inadequate. Despite the concerns of ACFM, STECF has calculated mixed-fisheries catch options for the North Sea, North-Western and South-Western areas.

In 2003, the General Fisheries Commission for the Mediterranean (GFCM) defined Operational Units (OU) for the Mediterranean area. Although the OU have been primarily defined for management purposes, they will also be expected to facilitate consistent collection of bio-economic data in the Mediterranean Sea.

On the basis of these experiences, both in the ICES area and in the Mediterranean Sea, ICES PGCCDBS recommended in 2005 that a Workshop be established, under the auspices of the European Commission, to recommend a fleet and fishery segmentation to be used for the future sampling design of bio-economic data.

In this view, a Workshop on Fleet-Fishery Based Sampling was carried out by the Commission in May 2005 to agree on the concepts, the terminology and to define the process to establish the fleet segments. The Workshop proposed a generic approach to split the fishing trips into groups of similar exploitation pattern, clustered in a hierarchical tree. An equivalent multi level approach is applied to the fleets for economic sampling purpose. The economic and biological information can be then gathered harmoniously in a matrix where the fleets segments correspond to the lines and the fishing activities correspond to the columns.

This Workshop was followed by a Workshop on Small-scale fisheries to take into account their specificities (multi-species multi-gear fisheries, heterogeneity, high variability in fishery activity over the time, lack of information concerning landings, discards and effort). The consequences for defining the sampling protocols to collect information related to this fleet segment were evaluated.

One of the recommendations of the Workshop on Fleet-Fishery based sampling was that Member States tested this matrix approach on their national data in order to check its relevancy and if necessary to propose better adequate and stable national fleet segmentation for the length vessel classes.

The results would have been presented to the Regional Coordination Meetings (RCMs) by September/October 2005, so proposal for fleet segmentations at the regional level could be done and then final decisions for all the areas could be taken during a final Workshop later at the start of 2006.

Only some Member States carried out the require analyses and were able to present results to the RCMs. Most of the Member States pointed out the difficulties in following the recommendations from the May 2005 Workshop. So, the Commission decided to postpone the final Workshop by June 2006 and to plan a specific Workshop in March 2006 in order to train the scientists involved in the Fleet Based Sampling.

During this training Workshop recommendations were made to set the regional matrix, guidelines were given to fill in the matrix and rules were established to carry out analysis in order to guarantee the relevant data will be provided to the June 2006 Workshop and the necessary analysis will be carried out by the participants in their Institutes with their national data in order to prepare the requested data for the June Workshop.

The purpose of this June Workshop was to finalize the Fleet-Based Sampling exercise, and based on the results of the analysis carried out on the national data and the information provided to the Workshop by the participants, to take final decisions about the regional fleet segments. These segments will be used in the new Data Collection Framework as key element for stratification of the regional sampling designs in order to collect information at the regional level.

In order to prepare the implementing regulation of the new Data Collection Framework there is a need to establish common operational rules for the collection of biological and economic data in the fleet-based approach context.

3.   Terms of reference

Terms of Reference of the Working Group were as follows:

a)   Review the fleet-fishing activity matrix at both EU and regional levels

b)   Propose or update stratification for regional length vessel classes

c)   Establish a regional design and regional protocols for the collection of biological and economic data in the view of the fleet based approach and SGRN recommendations (ref. doc #22): the proposal should include suggestions for the sampling strata, the sampling intensities and precision levels wherever possible, and for criteria for allocation of the fishing activity (dominance/exclusivity)

d)   Propose operational guidelines for the implementation of the new data collection framework (both for collection of biological and economic data).

4.   STECF Comments and Observations

STECF reviewed the report of the **SGRN-SGECA 08-01** Working Group on the fleet based approach of the proposed new DCR and notes that, at the request of the Commission, the text of the working group report was initially prepared by the Commission with the intention that it could be amended and used as the text of the draft regulation relating to the DCR. **STECF insists** that the main text of its working group reports should be a report of the proceedings of the group, and that any proposed text to be used in regulations should be included as an appendix.

STECF notes that a draft implementation regulation has already been published for MS consultation based on the report of the working group.

STECF observes that for economic variables, the report suggests that the population to be sampled includes only "active vessels" *[3.2.1. point 4.]*. Non-active vessels, while they have no activity data, still have a capital value and should not be excluded from sampling. STECF suggests that this be pursued as indicated in Section 8.1 of this plenary report.

STECF agrees that bio-econ modelling is better served if economic and transversal data are linked for individual vessels within MS data sets, but notes that some MS may have problems doing this because of issues of data confidentiality. *[3.2.1. point 5.]*

STECF notes that for economic data, a sampling strategy is required in order to achieve a required target level of precision for each segment *[section 4. ref. 3.2.3]*. STECF suggests that the variation present in the previous year's data should be used to determine required sample sizes per segment. The sampling strategy will therefore need to be reviewed annually.

STECF suggests that MS should include in their annual report the basis on which vessels were allocated to one supra-region for vessels that fished in more than one supra-region. *[section 3.2.2 Point 3]*

Regarding the grouping of two segments together for economic data collecting and reporting when there are less than 10 vessels in a segment, STECF observes that the statistical justification required relates to the choice of other segment into which the vessels are grouped. *[section 3.2.2 Point 4, 2nd bullet]*

In section 3.2.2 paragraph 4. of the working group report, there is an apparent contradiction regarding MS' right to make their own decisions on grouping of vessels from two segments

into one segment, when there are fewer than 10 vessels in a segment. The report first states that MS can choose their grouping of segments for collecting and reporting of economic data, then states that the RCMs should agree segment-clustering (grouping) rules for supra-regions. **STECF suggests** that the text under 3.2.2 paragraph 4. of the report should not be included in the final regulation. **STECF proposes** that the new regulation should be clear on whether MS can choose their grouping of segments for collecting and reporting of economic data or whether they are legally obliged to follow the advice of the RCMs. **STECF notes** that careful consideration should be given to any potential timing issues between dates of RCMs, planning of sampling strategies and dates for submission of MS technical reports (see also Section 9.2 of this plenary report).

STECF notes that in the report section headed "Sampling implementation programme" *[section 3.3.1.3, para 1.]* it is not clear what "article" is referred to.

STECF agrees with the group that, in due course, there should be further examination of the appropriate allocation of economic variables between supra-regions in the case where vessels fish in more than one supra-region. *[section 4. ref. 3.2.2 point 2]*

With regard to the need to implement biological sampling programmes of landings *[section 3.3.1.1 point 4.]*, it would be helpful to clarify whether paragraph b) refers only to cases where there is habitual grouping together of similar species for landings records. **STECF suggests** that this clarification be incorporated into the new regulation.

For guidance on disaggregation levels *[section 3.3.1.2]*, the report says that Supra regional agreement on grouping of fleet segments will be important. **STECF also proposes** that the RCM should, wherever possible, seek consistency in the clustering between the biological and economic variables. Any inconsistencies of clustering between the economic and biological variables, should be noted and explained.

STECF suggests that MS should adopt a common understanding of the meaning of "trip" for the biological sampling unit purposes. *[section 3.3.1.3]*

STECF suggests that the new regulation includes a reiteration of the "precision and accuracy objectives" with regard to biological data sampling. *[section 3.3.2.4]*

With regard to precision levels in population-related variables *[section 3.3.2.4]*, STECF notes that MSs will need further clarification on the second paragraph of section 3.3.2.4 of the report. The text as it stands does not give enough information to the national programmes to tell them what they actually need to do with regard to estimating age in stocks for which age reading is not possible.

STECF suggests that the term "transversal" be included in the glossary of terms.

Regarding transversal variables *[section 3.4.1. 2nd para]*, STECF notes that it may be necessary that a vessel allocated to a segment based on the previous year's activity, may need to be allocated to a different segment when the effort data becomes available, e.g. because it may have used different gear in the year in question.

There is an implied heavy work load for economists and biologists in designing and implementing this new sampling and analysis programme. **STECF proposes** that the Commission should urge MS to ensure that they have made sufficient preparation to achieve the submission deadlines.

5.   STECF Conclusions and Recommendations

Module for the collection of economic variables

In line with the working group conclusion, **STECF reiterates its previous recommendation** that the issues and questions relating to fleet segment / metier level economic data should be addressed either by a study or by a SGECA working group. *[section 3.2.2 Point 1]*

Module for the collection of biological variables

With regard to the length structure of the catches, it is necessary to have a definition of "negligible discards". **STECF recommends** that a definition for negligible discards is incorporated into the new regulation.

Regarding weight of discards for selected species and occurrence and weight of non-commercial species in the catches *[section 3.3.1.1 point 1]*, STECF notes that there is no text against these headings in the report and that it would be required to know what is intended with regard to data collection in these cases. **STECF recommends** the new regulation includes clear guidance on the requirements for weight of discards for selected species and occurrence and weight of non-commercial species in the catches.

STECF notes that limited reference is made by the WG to the concept of concurrent sampling. The principle of this was first outlined by SGRN in its 2006 report (SGRN-06-03 - Brussels, 27 Nov - 1 Dec 2006) as follows :

 "*In order to be able to fully appreciate and model the interactions between the different species taken by a métier, it is also essential to organise sampling in such a way that all species are sampled concurrently, actually meaning that all sampling for catch and length composition data is done simultaneously on all species in a vessel's catches or landing*

In order that the new regulation is fully informative, **STECF recommends** that the following text be incorporated in the final regulation: "the definition of "concurrent sampling" is: sampling all or a predefined assemblage of species, simultaneously in a vessel's catches or landings.

STECF notes that the working group attempted to provide guidance on how the concept of concurrent sampling might be implemented in practise by including a schematic. Table XX *[section 3.3.1.3]* purports to show 3 ways in which concurrent sampling could be achieved. STECF is of the opinion that the table and explanatory text do not help and may lead to confusion. Furthermore, the Table legend suggests that the Table includes guidance on additional sampling for the purpose of achieving precision targets. STECF considers that this is not at all clear and therefore **recommends** that the members of SGRN who are closely involved in the development of the ideas on which implementation of concurrent sampling is based, should provide a clear explanation of the process with more transparent examples provided and that the explanation and examples are included in the final regulation before it is adopted. STECF also considers it unfortunate that the existing explanation and Table has been incorporated into the draft regulation before this problem was highlighted.

With regard to the list of species for biological sampling, given in Appendix 4 of the report, STECF notes that the working group was unable to finalise this list during the meeting and suggested that the list would need to be revised by the relevant RCMs.   Due to incompleteness and inter-species discrepancies, the species list is not currently suitable to be used as a firm requirement under a regulation.   STECF notes however, that the draft

legislation distributed to MS contains the list in its incomplete state. **STECF recommends** that revisions to and completion of the species list in Appendix 4 should be completed before being adopted into legislation. **STECF concludes** that it should take responsibility for the required revision process and the STECF Board undertakes to establish (in consultation with the EU Commission) a mechanism for ensuring that stocks are allocated to appropriate groups (G1, G2 and G3).

STECF also draws attention to the sample sizes included in Appendix 4 and **recommends** that the values proposed be used only when information from the previous DCR is insufficient to estimate sample size in accordance with pre-settled precision levels (error and significance level).

Module for the collection of transversal variables

With regard to the sampling strategy for transversal variables *[section 3.4.2]*, the wording in the working group report is not clear. Since this wording has been included in the draft regulation, **STECF recommends** that the point should be clarified before the regulation is finalised and agreed.

ANNEX I

SGRN-SGECA 08-01: IMPLEMENTATION OF THE COLLECTION OF INDICATORS
FOR THE FLEET-BASED APPROACH AND ESTABLISHEMENT OF REGIONAL
SAMPLING DESIGNS FOR THE NEW DATA COLLECTION FRAMEWORK

Nantes, 4-8 February 2008

*This report does not necessarily reflect the view of the European Commission and in no way
anticipates the Commission's future policy in this area*

1. INTRODUCTION

1.1. Background

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This Workshop was followed by a Workshop on Small-scale fisheries to take into account their specificities (multi-species multi-gear fisheries, heterogeneity, high variability in fishery activity over the time, lack of information concerning landings, discards and effort). The

consequences for defining the sampling protocols to collect information related to this fleet segment were evaluated.

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The results would have been presented to the Regional Coordination Meetings (RCMs) by September/October 2005, so proposal for fleet segmentations at the regional level could be done and then final decisions for all the areas could be taken during a final Workshop later at the start of 2006.

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1.2.   Terms of Reference

a) Review the fleet-fishing activity matrix at both EU and regional levels

b) Propose or update stratification for regional length vessel classes

c) Establish a regional design and regional protocols for the collection of biological and economic data in the view of the fleet based approach and SGRN recommendations (ref. doc #22): the proposal should include suggestions for the sampling strata, the sampling intensities and precision levels wherever possible, and for criteria for allocation of the fishing activity (dominance/exclusivity)

d) Propose operational guidelines for the implementation of the new data collection framework (both for collection of biological and economic data).

1.3. Participants

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2.   DEFINITIONS

- **Active vessels**: Vessels that have been engaged in any fishing operation (more than 0 days) during the year. If not, the vessel is considered inactive.

- **Anadromous species**: Fish that spend their adult life in the sea but swim upriver to freshwater spawning grounds in order to reproduce [FAO definition].

  Matrix linkage: refers to (assemblage of) species classified as anadromous in the species classification reference table.

- **Catadromous species**: Fish that […] spawns in the ocean but live part of their lives in fresh water, eels being the main example [FAO definition].

  Matrix linkage: refers to (assemblage of) species classified as catadromous in the species classification reference table.

- **Catches:** The total number (or weight) of fish caught by fishing operations. Catch should include all fish killed by the act of fishing, not just those landed [FAO definition].

- **Cephalopods**: Animals (molluscs) with tentacles converging at the head, around the mouth (examples: squids, cuttlefish, and octopus) [FAO definition].

  Matrix linkage: refers to (assemblage of) species classified as cephalopods in the species classification reference table.

- **Crustaceans**: large group of arthropods (55,000 species). They include various familiar animals, such as lobsters, crabs, shrimp and barnacles [Wikipedia].

  Matrix linkage: refers to (assemblage of) species classified as crustaceans in the species classification reference table.

- **Days at sea:** a day present within an area shall be any continuous period of 24 hours (or part thereof) during which a vessel is present within the area and absent from port (Reg. 2371/2002) or if a passive fishing gear has been left at sea during this day.

- **Deep water species**: The group decided to base the classification as deep water species on the list of species defined as such in EU Reg. 2347/2002.

  Matrix linkage: refers to (assemblage of) species classified as deep_water_fish and deep_water_crustaceans in the species classification reference table

- **Demersal fish**: Living in close relation with the bottom and depending on it. The term "demersal fish" usually refers to the living mode of the adult. [FAO definition]. The distinction between benthic and demersal has been seen as confusing and subject to endless discussion, thus it was decided to combine the fish having benthic behaviour and fish having demersal behaviour in the only demersal fish group.

  Matrix linkage: refers to (assemblage of) species classified as demersal_fish in the species classification reference table

- **Demersal species**: Extends the concepts of demersal fish to molluscs and crustaceans.

  Matrix linkage: Results of *a posteriori* combination of fishing activities targeting molluscs, crustaceans and demersal fish

- **Exploitation pattern**: [FAO definition] the distribution of fishing mortality over the age (or length) composition of the fish population. It is determined by the type of fishing gear, area and seasonal distribution of fishing, and the growth and migration of the fish. The group decided to extend the definition of exploitation pattern to take into consideration the multi-species composition of the catch. The exploitation pattern then refers to both the relative species composition of the catch and the individual distributions of fishing mortalities over the age (or length) composition of the fish populations. It is determined by the type of fishing gear, area and seasonal distribution of fishing, and the growth and migration of the fish.

- **Fleet segment**: a group of vessels with the same length class and predominant fishing gear during the year, according to the appendix 2B. Vessels may have different fishing activities during the reference period, but they can be classified in only one fleet segment.

- **Finfish**: Generic term, including all teleosteans and elasmobranchs.

  Matrix linkage: Results of *a posteriori* combination of fishing activities, excluding those targeting molluscs and crustaceans.

- **Fishing days:** each day is attributed to the area where the first fishing operation took place within this day. However, for passive gears, if no operation took place from the vessel within a day while at least one (passive) gear remained at sea, this day will be associated to the area where the last setting of a fishing gear was carried out on that fishing trip (see DCR, reg 1639/2001, p6)

- **Fresh water species**: Species that spend all their life in fresh and brackish waters. This term is specific to the Baltic region.

  Matrix linkage: refers to (assemblage of) species classified as Freshwater_species in the fish classification reference table.

- **Gears** : The gear references are those fully described in :

  FAO fisheries technical paper 1999: 222 Rev 1. Definitions and classification of fishing gear categories (Nedelec and Prado, 1990)

  FAO fishing gear fact sheets
  http://www.fao.org/figis/servlet/static?dom=root&xml=tech/gears_search.xml

  o In order to avoid confusion, the group recalls that **beach seine** may be set from a vessel as specified in the FAO fact sheet; excerpts :

  o *Fishing Vessels using this gear: Beach seines are usually set from a boat (in general, a small boat, in many cases, without engine)*

- **Landings:** Weight of what is landed at a landing site. May be different from the catch (which includes the discards) [FAO definition].

- **Large pelagic fish**: sub-component of the pelagic fish composed of all species assessed by ICCAT and IOTC. These include tunas, swordfish, billfish and some sharks species. The group decided to include dolphinfish and amberjack in this list.

  Matrix linkage: refers to (assemblage of) species classified as Large_pelagic_fish in the species classification reference table

- **Métier**: A group of fishing operations targeting the same (assemblage of) species, using similar gear, during the same period of the year and/or within the same area and are characterised by a similar exploitation pattern.

- **Miscellaneous:** Fishing activities of national interest which are not clustered in the fleet-fishery matrix. These need to be specified.

- **Mixed Behavioural Group1 and Behavioural Group2** : The mixed nature of targeted species is a composition of species belonging to different behavioural groups and being intentionally targeted by the fisher during one fishing operation.

- **Molluscs**: Family of species including the classes of cephalopods, gastropods and bivalves.

  Matrix linkage: Results of *a posteriori* combination of fishing activities targeting Cephalopods, Gastropods and Bivalves. Gastropods and Bivalves are referred as such in the fish classification reference table.

- **Other activity than fishing**: refers to number of vessels receiving a revenue from a commercial activity different from fishing activity (i.e. tourism, …) .

- **Pelagic fish**: Fish that spend most of their life swimming in the water column with little contact with or dependency on the bottom. Usually refers to the adult stage of a species [FAO definition].

- **Population of vessels**: the "population" is all national vessels within the "Community Fishing Fleet Register" Council Regulation (EC N° 26/2004 of 30 December 2003) at the 1st of January.

- **Selected species**: species of relevance for management purpose and for which a request is expressed by a international scientific bodies or regional fisheries management organisations.

- **Small pelagic fish**: sub-component of the pelagic fish other than the large pelagic fish.

  Matrix linkage: refers to (assemblage of) species classified as Small_pelagic_fish in the fish classification reference table

- **Soaking time**: time spent at sea calculated from the point where each individual unit of gear has been set, until the time when the same unit starts to be removed. (PGMED, 2007)

- **Target species**: Those species that are primarily sought by the fishermen in a particular fishery. The subject of directed fishing effort in a fishery. There may be primary as well as secondary target species [FAO definition].

3. CONTENTS AND METHODOLOGY

3.1. Contents of the programme of data collection

1. The data collection programme for the fishing sector contains the following modules:

(a) Module for the collection of economic variables;

(b) Module for the collection of biological variables;

(c) Module for the collection of transversal variables (landings, capacity and effort);

2. For each variable to be collected within a module, the disaggregation level is specified (Appendix 2D) on the basis of the fleet-fishing activity matrix approach (Appendix 2A)

3.2.   Module for the collection of economic variables

3.2.1 Variables

Based on the general comments from the SGECA 08-01 report, the group reviewed and updated the comments below:

1. All economic variables defined in the Appendix 3 are to be collected on an annual basis with the exception of those identified as transversal variables and collected at more disaggregated levels (as defined in the Appendix 5).
2. The population is all vessels in the Community Fleet Fishing Register
3. The number of enterprises should be given for the entire population
4. Economic variables should be collected for all "active vessels"
5. For each vessel for which economic variables are collected, transversal data should also be collected.
6. National currencies should be transformed into Euros using the average annual exchange rate available from the European Central Bank (ECB).

3.2.2 Disaggregation levels

1. Economic variables should be reported for each fleet segment (Appendix 2B) and for "supra regions" (Appendix 1B). Six length classes (using the 'overall length' measurement (LOA)) are defined, however Member states are free to further disaggregate length classes if relevant.

2. The dominance criteria should be used to allocate each vessel to a segment. This procedure is based on the number of fishing days used with each gear. If a fishing gear is used more than the sum of all the others (i.e. a vessel spends more than 50% of its fishing time using this gear), the vessel should be allocated to this segment. If not, the vessel is allocated to "Vessels using Polyvalent "active" gears" if it only uses active gears, to "Vessels using Polyvalent "passive" gears" if it only uses passive gears and otherwise to "Vessels using active and passive gears".

3. In the case where a vessel operates in more than one supra region, it is difficult to fulfil this stratification target. The member states should explain, in the national program, where the vessel is allocated.

4. For a fleet segment with less than 10 vessels:
   o Clustering could be necessary in order to design the sampling plan and to report economic variables
   o Member states should report which fleet segments have been grouped and should justify the clustering on the basis of statistical analysis
   o In the technical report, the member state should report the number of sampled vessels for each fleet segment regardless of any clustering made to collect or provide the data.
   o The RCMs should define homogeneous clustering rules at the level of supra regions so that the economic variables are comparable.

3.2.3 Sampling strategy

1. Ideally, the economic survey should use a stratified random sampling approach. Whether the method used is stratified random sampling or other, each Member state should detail its methodology for the estimation of each economic variable in the national program and give information on the quality of estimates in the technical report based on accuracy and precision indicators (see section 5.).
2. Member State should ensure the consistency and comparability of all economic parameters when derived from different sources (e.g. surveys, Fleet register, logbooks, sales notes…).

3.3.   Module for the collection of biological variables

3.3.1 Métier-related variables

3.3.1.1)   Variables

1. Length structure of the catches.

Where as the length structure of the catches corresponds to the length structure of the discarded part and the length structure of the retained part:
   i)   When discards are proved to be negligible, the length structure of the catches may be approximated by the length structure of the landings,
   ii)   When the length structure of the retained fraction on-board does not meet the precision and accuracy objectives, monitoring at-sea may be complemented with the length structure of the landings from shore sampling where appropriate.
   iii)   When discards are not proven to be negligible, at-sea monitoring should be carried out.

2. Weight of discards for selected species

3. Occurrence and weight of non-commercial species in the catches

4. Biological sampling programmes of the landings must be implemented:

a) to estimate the share of the various stocks in these landings for: herring in the Skagerrak, Kattegat, and eastern North Sea separately, and wild and reared salmon in the Baltic Sea,

b) to estimate the share of the various species for those species that are internationally regulated, e.g. flatfish in ICES division IX, megrims, anglerfish, and elasmobranches.

3.3.1.2) Disaggregation level

Data should be collected by métier referred to as level 6 of the matrix defined in appendix 2C (1 to 5). In order to optimise the sampling programmes, it may be possible to merge métiers. When métiers are merged (vertical merging), statistical evidence should be brought regarding the homogeneity of the combined métiers. When neighbouring cells corresponding to fleet segments of the vessels are merged (horizontal merging), statistical evidence should be brought regarding the homogeneity of the combined cells. Such horizontal merging should be done primarily by clustering neighbouring vessel LOA classes, independently of the dominant fishing techniques, when relevant to distinguish different exploitation patterns. Regional agreement on mergers must be sought in the relevant RCM.

At a national level, it is possible to further disaggregate one metier defined at level 6 of the matrix into several more precise strata, i.e. distinguishing different target species. Such national stratification of the métier defined in the matrix must respect the following principles: (i) the strata defined at a national level must not overlap and (ii) together they must comprise all the fishing trips of the métier defined at level 6.

The spatial units for métier sampling are defined by level 3 of appendix 1A for all the regions with the following exceptions: (i) the Mediterranean, the Black Sea and the Baltic Sea where the resolution is level 4, (ii) RFMO-defined units, providing they are métier-based (in the absence of such definitions, the RCM should proceed to appropriate mergers).

For parameters referred to in point 4a) of the section 3.3.1.1):

- Data should be provided quarterly and consistent with the fleet fishing activity matrix described in Appendix 2C.

3.3.1.3) Sampling programme implementation

The Member State on whose territory the landings take place is responsible for ensuring that biological sampling occurs according to the standards defined in this article. If necessary, Member States will co-operate with the authorities of third countries to set up biological sampling programmes for the landings carried out by vessels flying the third country's flag.

In accordance with Regulation (EEC) No 2847/93, each Member State must take the necessary measures to ensure the gathering of all data concerning the activities of the vessels belonging to its fleet register and/or flying its flag whatever their place of landing.

For sampling purpose, only the major métiers need to be considered. In order to identify the major métiers to sample, a ranking system should be used at level 6 as following:

- The métier cells should first be ranked according to their share in the total landings. The shares should then be accumulated, starting with the largest, until a cut-off level of 90% (threshold to be tested) is reached. All métiers belonging to the top 90% are selected for sampling.

- This exercise should then be repeated according to the total value of the landings and a third time according to the total effort in days-at-sea. The métiers in the top 90% not belonging to the previous top 90% should be added tot the selection.

- STECF may add to the selection métiers not picked up by the ranking system but of special importance in term of management.

The sampling unit is a trip and the number of trips to sample should ensure good coverage of the métier and aim for precision level 1 for the target species of the métiers to sample. The precision level 1 must also be targeted at the stock level for both group 1 and group 2 species. If necessary, specific stock-based samples must be added if metier-based sampling fails to provide the appropriate precision for length distributions at the stock level. The precision values are referenced at the same level as the sampling programmes, i.e. at the national métier level for data that are collected through national programmes and at regional métier level for data that are collected through regionally coordinated sampling programmes.

During the interim period (2009 – 2010), the sampling intensity should be proportional to the relative effort of that métier at the level of the sampling programme. The minimum number of trips to sample should never be less than 1 trip per month during the fishing season for trips lasting less than 2 weeks and 1 trip per quarter sampled by on-board observers otherwise.

When sampling a trip, the species should be sampled concurrently as following:

- Each species within a region is classified within a group according to the following rules:

    o Group 1: Species that drive the international management process including species under an EU recovery plan or EU action plan for conservation and management.

    o Group 2: Other internationally regulated species and major non-internationally regulated by-catch species.

    o Group 3: All other by-catch species

During the interim period (2009 – 2010), the allocation of species to group 1 and group 2 is specified in appendix 4. This list may be revised by the relevant RCM for further endorsement by STECF. (The sampling scheme will depend on the diversity of species to sample and the operational conditions under which sampling takes place. Possible sampling schemes range from the comprehensive sampling of all species on shore (scheme 1) to the sampling of all group 1 species each occasion with group 2 and 3 species sampled every *x%* of occasions on shore (scheme 2). Scheme 3 requires all group 1 *species to be sampled on each occasion, for group 2 species to be sampled every x% of the occasions* and group 3 species to be sampled at sea as described in the table.

SAMPLING SCHEME	FREQUENCY	Group 1					Group 2					Group 3				
		1	2	3	.	*n*	1	2	3	.	*n*	1	2	3	.	*n*
Scheme 1	Every sampling event	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Scheme 2	*x%* of sampling events	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	(100-x)% of sampling events	x	x	x	x	x										
Scheme 3	*x%* of sampling operations	x	x	x	x	x	x	x	x	x	x	Sampling at sea				
	(100-x)% of sampling events	x	x	x	x	x										

Table XX Schemes for concurrent sampling with additional sampling to achieve precision targets

- For any sample, the sampling scheme should be recorded (table xx) along with information on how complete the sampling was:

  o When sampling a species, the number of individuals measured must ensure quality and accuracy of resultant length frequency. The number of length classes within a sample can be estimated from the approximate length range within it and, from this, the number of fish measured should lie between *3 x number of length classes* and *5 x number of length classes* as a first approximation, in the absence of any statistical optimisation of the sampling design..

  A summary of the sampling protocols should be made available to STECF through the national programme for each metiers sampled.

3.3.2. Population-related variables

3.3.2.1) Variables

Individual information on age, length, weight, sex, maturity and fecundity for all stocks mentioned in appendix 4.

3.3.2.2) Disaggregation level

The necessary disaggregation levels are specified in Appendix 4 as well as the collection periodicity for all variables and the sampling intensities for age. Member States can apply sampling strategies other than that corresponding to the basic stratification with simple random sampling and other sampling intensities than those defined in Appendix 4, providing the alternative approach achieves the same or a higher precision level at the same or at a lower cost, and that this is established by the corresponding national programme.

3.3.2.3) Sampling programme implementation

Whenever possible, age-reading should be performed on commercial catches. If this is not the case, Member States should specify it within their national programme.

If cooperation between Member States ensures that the overall estimate of the parameters under point 3.3.2.1) reach the necessary precision level, individual Member States are not required to ensure that its own data are sufficient to reach this precision level.

3.3.2.4) Precision levels

For stocks of species that can be aged, average weights and lengths for each age must be estimated at a precision level 3, up to an age such that accumulated landings for the corresponding ages account for at least 95 % of the national landings for the relevant stock,

For stocks for which age reading is not possible, but for which a growth curve can be estimated, average weights and lengths for each age must be estimated with a precision of level 2, up to an age such that accumulated landings for the corresponding ages account for at least 90 % of the national landings for the relevant stock.

For maturity, fecundity and sex ratios, a choice can be made between reference to age or length, provided that Members States which have to conduct the corresponding biological sampling have agreed the following:

- for maturity and fecundity, precision at level 3 must be achieved within the age and/or length range, the limits of which correspond to 20 % and 90 % of mature fish,

- for sex ratios, precision at level 3 must be achieved, up to an age or length such that the accumulated landings for the corresponding ages or lengths account for at least 95 % of the national landings for this stock.

3.3.2.5) Exemptions rules

The national programme of a Member State can exclude the estimation of the variables referred to in section 3.3.2.1) for stocks for which TACs and quotas have been defined under the following conditions:

i) the relevant quotas correspond to less than 10 % of the Community share of the TAC or to less than 200 tonnes on average during the previous three years;

ii) the sum of all quotas of Member States whose allocation is less than 10 %, accounts for less than 25 % of the Community share of the TAC

If the condition set out at (i), above, is fulfilled, but not the condition set out at (ii), the relevant Member States may set up a coordinated programme to achieve for their joint landings a sampling scheme as described in Appendix 4, or another sampling scheme, leading to the same precision

If appropriate, the national programmes can be adjusted until 1 February of each year to take into account the exchange of quotas between Member States

iii) for stocks for which TACs and quotas have not been defined and outside the Mediterranean area, the same rules apply on the basis of the average landings of the previous three years and with reference to the total Community landings from a stock,

iv) for stocks in the Mediterranean area, the landings by weight of a Mediterranean Member State for a species corresponding to less than 10 % of the total community landings from the Mediterranean area, or to less than 200 tonnes, except for bluefin tuna;

3.4. Module for the collection of transversal variables

Transversal variables are those of joint interest to economists and biologists.

3.4.1. Variables

Variables to be collected are listed in Appendix 5. Data should be provided according to the periodicity stated in the table.

Some delays may occur between information provided on the fleet segmentation and on the fishing effort.

3.4.2. Disaggregation level

The disaggregation level is given in appendix 5 following the criteria defined in appendix 2D. Data collected by métier are referred to as level 6 of the matrix as defined in section 3.3.1.2).

The degree of aggregation corresponds to the most disaggregated level required. A grouping of cells within this scheme can be made providing an appropriate statistical analysis demonstrates its suitability. Such mergers must be approved by the relevant RCM.

3.4.2. Sampling strategy

Whenever possible, transversal data should be collected in an exhaustive way. If this is not the case, Member States should specify the sampling procedures within their national programme.

4. DISCUSSIONS AND EXPLANATIONS

Reference	Discussions and explanations
2. "Fleet segment"	- The previously defined segment "Pelagic Trawls and Seiners" has been split into two; "Pelagic Trawlers" and "Purse seiners". - Although the GFCM suggests another criteria for the segmentation within the task 1 resolution (exclusivity and hierarchical tree), the group has chosen to be consistent at European level using one unique criteria. Therefore, in accordance with the outcomes of the STECF meetings in Nantes and Salerno (Commission Staff Working Papers: France, 23-27 May 2005, 13-17 March 2006 and 12-16 June 2006) and SGECA 07-01) the dominance criteria should be used. - Regarding the length classes, the group agreed on the need to split the under 12 metres and the "12-24 metres" into two length classes in order to improve the data quality at European level. - For vessels under 12 metres, the group suggests distinguishing between the Mediterranean and the other regions and agrees a cut at 6 metres for the Mediterranean region and a cut at 10 metres for all other regions. This suggestion is consistent with the recommendation of the RCM meeting in Cyprus (April 2007) and GFCM Task 1 resolution. - For the 12-24 metres class, the group suggests one unique split at 18 metres for all regions. This common approach is needed to harmonise and improve the data comparability at European level, considering that vessels may fish in different regions during the same year.
3.2.1 Point 6.	In order to perform bio-economic analysis, the group stresses that it is necessary to work at the individual vessel level and link economic variables (type 1) to transversal data (capacity, effort…) for the same vessel. Therefore, the group stresses that this information is given in relation to the economic sample provided there are no data confidentiality issues.
3.2.2 Point 1	The group is aware that in cases where vessels in one fleet segment employ quite different gears or participate in different fisheries (practise different métiers) at different times in the year, it would be inappropriate to simply allocate average cost structures across the métiers within one fleet segment. In accordance to STECF plenary recommendations, the group considers that the issues and questions relating to fleet segment / métier level economic data should be addressed by a research project or by a SGECA working group with invited experts to include economists and biologists (STECF Plenary 08-03, p98)

3.2.2 Point 2	It is not possible to define a sampling strategy for the collection of economic variables (type 1) on the basis of RCM areas because vessels may be active in more than one area during the same year. Further analysis is required to evaluate the cost structure within each RCM area and to suggest a methodology to split, if necessary, economic variables among RCM areas.
3.2.3.	The sample size should be defined on the basis of a targeted level of precision, fixed by the member states in order to achieve the best quality of estimates and considering cost-efficiency.
Elaboration of annex 4	The filling of the species sampling specifications table demanded too much time for doing it during the meeting. The table in annex 4 is a combination of agreement made during the meeting and intersession work. This table is not complete, still questionable for certain regions and thus is not to be seen as the final table for the new DCR.

The allocation of group for the species is associated to the need for management purpose, thus apart some obviousness, should be reviewed by the RFMOs themselves.

The Appendix XII of the current DCR as been used as a basis, and all stocks mentioned in this appendix were said being either Group 1 or Group 2. The revision to Group 3 of a very small number of stocks means that these species should be removed from the list. The periodicity of the biological parameters other than age is yearly for all Group 1 species and triennially for Group 2 species in the ICES and GFCM areas, triennially for all stocks in ICCAT and CECAF, and yearly and no sex-ratio request for NAFO area as specified in the annex of SGRN-06-03 report.

The Mediterranean is a special case, as it is in a transition period after having adopted in 2007 the new task 1 resolution (GFCM/31/2007/1) and the Geographical Sub-Areas resolution (GFCM/31/2007/2). In particular, the GSA resolution specifies another geographical stratification that the FAO division used in the previous DCR. The Mediterranean section of the table presented in Annex 4 is the one elaborated during the meeting, although some modifications were further requested, without reaching general agreement. A review of this section of table should be done during the next PGMED, together with the GFCM secretariat.

The Baltic area has been entirely revised to better take into account the limits of the major stocks.

No species allocation has been given for the CCAMLR, South West Atlantic and Angola as no expert involved in these regions were present at the meeting.

A demand of positioning all the sampling requirements of tunas in the Highly Migratory Species section of the table 4 has been voiced after the meeting. This demand is directly linked to the boundaries of the |

	RCM and should be discussed during the forthcoming Liaison Meeting.

5. RECOMMENDATIONS FOR FURTHER IMPROVEMENTS OF THE DCR

Reference	Recommendations
2. "Fleet segment"	• SGECA-SGRN recommends that further analysis be undertaken next year to investigate the relevance of splitting "Demersal Trawls and Demersal Seiners" into two separate groups. • SGECA-SGRN recommends undertaking further analysis to investigate if it is relevant to define a threshold for the allocation of a polyvalent vessel into other polyvalent segments. Example: For a vessel allocating its fishing time 45% to DTS, 45% to PTS and 10% to DFN, should it be allocated to "Polyvalent active gears" or "Combining active and passive gears"?
3.2.3	ToRs for the "Quality aspects for the collection of economic variables" SGECA meeting in 2008: - Recommend the best format for describing the sampling strategy for the collection of economic variables in the national program - Recommend indicators of accuracy and precision that need to be provided in the national technical report to evaluate the quality of estimates for each economic variable - Propose statistical methods to decide whether clustering of fleet segments should take place.

6. REFERENCES

1.   Council Regulation (EC) N° 1543/2000 of 29 June 2000 establishing a Community Framework for the collection and management of the data needed to conduct the common fisheries policy – OJ L 176, 15.7.2000, p.1.

2.   Commission Regulation (EC) N° 1639/2001 of 25 July 2001 establishing the minimum and extended Community programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of Council Regulation (EC) N° 1543/2000 – OJ L 222, 17.8.2001, p.53.

3.   Commission Regulation (EC) N° 1581/2004 of 27 August 2004 Amending Regulation (EC) N°1639/2001 establishing the minimum and extended Community

programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of Council Regulation (EC) N° 1543/2000 – OJ L 289 27.8.2004, p 6

4.   Commission Staff Working Paper: Report of the Ad Hoc Meeting of the independents experts on Fleet-Fishery based sampling, Nantes, France, 23-27 May 2005, 34 p.

5.   Commission Staff Working Paper: Report of the Workshop on Small-Scale Fisheries, Kavala, Greece, 12-16 September 2005, 25 p.

6.   Commission Staff Working Paper: Report of the training Workshop on Fleet-based Approach, Nantes, France, 13-17 March 2006, 31p

7.   Commission Staff Working Paper: Report of the Ad Hoc Meeting of the independents experts on the Fleet-Fishery based sampling, Nantes, France, 12-16 June 2006, 98 p.

8.   Commission Staff Working paper: Report of the 3rd Regional Co-ordination Meeting for the Baltic (RCM Baltic), Lysekil, Sweden, 16-20 October 2006, in press

9.   Commission Staff Working paper: Report of the 3rd Regional Co-ordination Meeting for the North Sea area (RCM NS), The Hague, The Netherlands, 26-29 September 2006, in press

10.   Commission Staff Working paper: Report of the 3rd Regional Co-ordination Meeting for the North East Atlantic (RCM NEA), Lisbon, Portugal, 2-6 October 2006, in press

11.   Commission Staff Working paper: Report of the 3rd Regional Co-ordination Meeting for the Mediterranean Area (RCM Med), La Valette, Malta, 26-28 April 2006; 51 p.

12.   Commission Staff Working paper: Report of the 2nd Regional Co-ordination Meeting for the NAFO area (RCM NAFO), Lisbon, Portugal, 25-28 June 2006, in press.

13.   ICES 2003. Report of the Study Group on the Development of Fishery-based Forecasts Boulogne, France 18-21 February 2003, CM 2003/ACFM: D 08, 37 p.

14.   ICES 2004. Report of the Study Group on the Development of the Fishery-Based Forecasts Ostende, Belgium 27-30 January 2004, CM 2004/ACFM: D, 37 p.

15.   ICES 2005. Report of the Workshop on Sampling Design for Fisheries Data, 1-3 February 2005, Pasajes, Spain. ICES CM 2005/ACFM: 11, 78 p.

16.   ICES 2005. Report of the Planning Group on Commercial Catches Discards and Biological Sampling (PGCCDBS), Oostende, Belgium, 1-4 March 2005, ICES CM 2005/ACFM: 15, 153 p.

17.   GFCM 2003. Report of the Twenty-eighth Session of the General Fisheries Commission for the Mediterranean, Tangiers, Morocco, 14-17 October 2003

18. GFCM 2007. Report of the GFCM-SAC transversal Workshop on the compilation of GFCM Task 1 data, Casablanca 19-22 June 2007, 41p.

19. Report of the ECODATA Workshop on Economic Indicators. Paris IFREMER 10–14 May 2004, 18 pp. + annexes.

20. Commission Staff Working Paper. STECF report SEC (2005) 369. Brussels, 01-05 November 2004. 111 p.

21. Commission Staff Working Paper SEC (2007, xxx): Report of the STECF Sub-group on Economic Affairs (SGECA 07-01): Meeting on Data Collection Commission Regulation Nº1543/2000, Nº1639/2001, and N ° 1581/2004. Salerno, Italy, 15-19 January 2007, 21p+ annexes.

22. Commission Staff Working Paper SEC (2007, xxx): Report of the STECF Sub-group on Research Needs; Report of the STECF-SGRN-06-03: Revision of the Biological Data Requirements under the Data Collection Regulation. Brussels 27 November-1st December 2006, 48 p + annexes.

7. LIST OF APPENDICES

Appendix N°	Title
1.A	Geographic Stratification by RFOs
1.B	Geographical stratification by region
2.A	Fleet-fishing activity matrix : the principle
2.B (1,2)	Fleet segmentation per region
2.C (1 to 6)	The fishing activity (metier) per region
2.D	The disaggregation levels for the collection of data
3	Economic variables
4	Biological variables : Species sampling specification
5	Transversal variables: sampling specification

Appendix 1A: Geographic Stratification by RFOs

	ICES	NAFO	ICCAT	GFCM	CCAMLR	IOTC	Other
Level 1	**Area**	**Area**	**FAO Area**	**Area** e.g. 37 Mediterranean and Black sea	**Area** e.g. 48	**FAO Area**	**FAO Area**
Level 2	**Subarea** e.g. 27.IV North Sea	**Subarea** e.g. 21.2 Labrador	**FAO Sub-Area**	**Sub-Area** e.g.37.1 Western	**Subarea** e.g. 48.1 Antarctic Peninsula	**FAO Sub-Area**	**FAO Sub-Area**
Level 3	**Division** e.g. 27.IV c	**Division** e.g. 21.2 H	**Division** 5° x 5°	**Division** e.g. 37.1.2 Gulf of Lions	**Division** 5° x 5°	**Division** 5° x 5°	**Division** 5° x 5°
Level 4	**Subdivision** e.g. 27.III.d.25			**GSA** e.g. GSA 1			
Level 5	**Rectangle** 30' x 1°	**Rectangle**	**Rectangle** 1° x 1°		**Rectangle** 1° x 1°	**Rectangle** 1° x 1°	**Rectangle** 1° x 1°

Appendix 1B: Geographical stratification by region

	Sub region / Fishing ground 1)	Region	Supra region
Level	**1**	**2**	**3**
	Cluster of spatial units on level 4 of Appendix 1A (ICES subdivision)	Baltic	North Atlantic (East and West) and adjacent seas (Eastern Artic, North Sea, Baltic)
	Cluster of spatial units on level 3 of Appendix 1A (ICES division)	North Sea and Eastern Artic, ICES Division 3A	
	Cluster of spatial units on level 3 of Appendix 1A (ICES/NAFO division)	North Atlantic (East and West)	
	Cluster of spatial units on level 4 of Appendix 1A (GSA)	Mediterranean and Black Sea	Mediterranean and Black Sea
	RFMOs sampling Sub-areas (except GFCM)	Others (e.g. ICCAT, IOTC, CECAF…)	Other areas

Footnotes

1) Sub regions or fishing grounds are defined by member states in the transition period (2009-2010) and have to be discussed within RCM meetings and agreed by STECF. This level should be consistent with existing geographical divisions.

Appendix 2.A - Fleet-fishing activity matrix: the principle

	Fleet Segment 1	Fleet Segment 2	…..	Fleet Segment j	
Métier 1	A	A			B
Métier 2	A	A			B
…….					B
Métier i					
	C	C			

Footnote:

Broadly speaking, the fleet-fishing activity matrix admits 3 levels for the collection of data:

A = Métier i * Fleet segment j, the level of the cell considering both the métier and the fleet segment;

B = Métier i, the level of the métier without considering the fleet segments**;**

C = Fleet segment j, the level of the fleet segment without considering the métiers.

Appendix 2.B: Fleet segmentation per region

2B.1) Baltic & North Sea & Eastern Arctic & North Atlantic (East and West) & Long Distance Fisheries

		Length classes (LOA) 1)					
		0-<10m	10-<12m	12-<18m	18-<24m	24-<40m	40m or larger
Active Vessels							
Using "Active" gears	Beam trawlers						
	Demersal trawlers and/or demersal seiners						
	Pelagic trawlers						
	Purse seiners						
	Dredgers						
	Vessels using other active gears						
	Vessels using Polyvalent "active" gears only						
Using "Passive" gears	Vessels using hooks	2)	2)				
	Drift and/or fixed netters						
	Vessels using Pots and/or traps						
	Vessels using other Passive gears						
	Vessels using Polyvalent "passive" gears only						
Using Polyvalent gears	Vessels using active and passive gears						
Inactive vessels							

2B.2) Mediterranean

		Length classes (LOA) 1)					
		0-<6m	6-<12m	12-<18m	18-<24m	24-<40m	40m or larger
Active Vessels							
Using "Active" gears	Beam trawlers						
	Demersal trawlers and/or demersal seiners						
	Pelagic trawlers						
	Purse seiners						
	Dredgers						
	Vessel using other active gears						
	Vessels using Polyvalent "active" gears only						
Using "Passive" gears	Vessels using hooks	2)	2)				
	Drift and/or fixed netters						
	Vessels using Pots and/or traps						
	Vessels using other Passive gears						
	Vessels using Polyvalent "passive" gears only						
Using Polyvalent gears	Vessels using active and passive gears						
Inactive vessels							

Footnotes:

1)   For vessels less than 12 metres in the Mediterranean, the length categories are 0-<6, 6-<12 metres.
For all other regions, the length categories are defined as 0-<10, 10-<12 metres.

2)   Vessels less than 12 metres using passive gears can be disaggregated by gear type.

Appendix 2.C: The fishing activity (metier) per RCM

2.C.1) Baltic

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	LOA classes					
Activity	Classes of gear	Gear groups	Gear type	Target assemblage	Mesh size and other selective devices	< 10	10-12	15-18	18-24	24-40	> 40
Fishing activity	Trawls	Bottom trawls	Bottom otter trawl [OTB]	Crustaceans	(a)						
				Demersal fish	(a)						
				Small pelagic fish	(a)						
				Freshwater species	(a)						
			Multi-rig otter trawl [OTT]	Crustaceans	(a)						
				Demersal fish	(a)						
				Small pelagic fish	(a)						
			Bottom pair trawl [PTB]	Demersal fish	(a)						
				Small pelagic fish	(a)						
				Freshwater species	(a)						
		Pelagic trawls	Midwater otter trawl [OTM]	Demersal fish	(a)						
				Small pelagic fish	(a)						
				Freshwater species	(a)						
			Pelagic pair trawl [PTM]	Demersal fish	(a)						
				Small pelagic fish	(a)						
				Freshwater species	(a)						
	Hooks and Lines	Rods and Lines	Hand and Pole lines [LHP] [LHM]	Finfish	(a)						
		Longlines	Drifting longlines [LLD]	Small pelagic fish	(a)						
				Anadromous species	(a)						

		Set longlines [LLS]	Demersal fish	(a)						
			Small pelagic fish	(a)						
			Freshwater species	(a)						
			Anadromous species	(a)						
			Catadromous species	(a)						
Traps	Traps	Pots and Traps [FPO]	Demersal fish	(a)						
			Small pelagic fish	(a)						
			Freshwater species	(a)						
			Anadromous species	(a)						
			Catadromous species	(a)						
		Fyke nets [FYK]	Demersal fish	(a)						
			Small pelagic fish	(a)						
			Freshwater species	(a)						
			Anadromous species	(a)						
			Catadromous species	(a)						
		Stationary uncovered pound nets [FPN]	Demersal fish	(a)						
			Small pelagic fish	(a)						
			Freshwater species	(a)						
			Anadromous species	(a)						
			Catadromous species	(a)						
Nets	Nets	Trammel net [GTR]	Demersal fish	(a)						
			Small pelagic fish	(a)						
			Freshwater species	(a)						
		Set gillnet [GNS]	Demersal fish	(a)						
			Small pelagic fish	(a)						
			Freshwater species	(a)						
			Anadromous species	(a)						
			Catadromous species	(a)						
	Seines	Surrounding nets	Purse seine [PS]	Small pelagic fish	(a)					

			Fly shooting seine [SSC]	Demersal fish	(a)						
				Freshwater species	(a)						
		Seines	Anchored seine [SDN]	Demersal fish	(a)						
				Small pelagic fish	(a)						
			Pair seine [SPR]	Demersal fish	(a)						
			Beach and boat seine [SB] [SV]	Finfish	(a)						
	Fishing activity missing information			Fishing activity missing information							
Other activity than fishing				Other activity than fishing							
Inactive				Inactive							
Recreational fisheries (non registered vessels or no vessels)				Salmon, Cod	Not applicable	All vessel classes (if any) combined					

(a) Not spelled out in DCR but defined with reference to relevant EU Regulation(s)

2.C.2) North Sea and Eastern Arctic

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	LOA classes					
Activity	Gear classes	Gear groups	Gear type	Target assemblage	Mesh size and other selective devices	< 10	10-12	12-18	18-24	24-40	> 40
Fishing activity	Dredges	Dredges	Boat dredge [DRB]	Molluscs	(a)						

			Mechanised / Suction dredge [HMD]	Molluscs	(a)							
Trawls	Bottom trawls		Bottom otter trawl [OTB]	Molluscs	(a)							
				Crustaceans	(a)							
				Demersal fish	(a)							
				Mixed crustaceans and demersal fish	(a)							
				Mixed cephalopods and demersal fish	(a)							
				Small pelagic fish	(a)							
				Deep-water species	(a)							
				Mixed pelagic and demersal fish	(a)							
				Mixed demersal and deep water species	(a)							
			Multi-rig otter trawl [OTT]	Molluscs	(a)							
				Crustaceans	(a)							
				Demersal fish	(a)							
				Deep-water species	(a)							
				Mixed crustaceans and demersal fish	(a)							
				Mixed pelagic and demersal fish	(a)							
			Bottom pair trawl [PTB]	Demersal fish	(a)							
				Crustaceans	(a)							
				Small pelagic fish	(a)							
			Beam trawl [TBB]	Crustaceans	(a)							
				Demersal fish	(a)							
				Mixed crustaceans and demersal fish	(a)							
	Pelagic trawls		Midwater otter trawl [OTM]	Small pelagic fish	(a)							
				Demersal fish	(a)							
			Pelagic pair trawl [PTM]	Small pelagic fish	(a)							
				Demersal fish	(a)							
Hooks and Lines	Rods and Lines		Hand and Pole lines [LHP] [LHM]	Finfish	(a)							
	Longlines		Set longlines [LLS]	Demersal fish	(a)							
Traps	Traps		Pots and Traps [FPO]	Molluscs	(a)							

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			Crustaceans	(a)							
			Finfish	(a)							
		Fyke nets [FYK]	Catadromous species	(a)							
Nets	Nets	Trammel net [GTR]	Demersal fish	(a)							
		Set gillnet [GNS]	Small pelagic fish	(a)							
			Demersal fish	(a)							
			Crustaceans	(a)							
		Driftnet [GND]	Small pelagic fish	(a)							
			Demersal fish	(a)							
Seines	Surrounding nets	Purse seine [PS]	Small pelagic fish	(a)							
	Seines	Fly shooting seine [SSC]	Demersal fish	(a)							
		Anchored seine [SDN]	Demersal fish	(a)							
		Pair seine [SPR]	Demersal fish	(a)							
		Beach and boat seine [SB] [SV]	Finfish	(a)							
Other gear	Other gear	Glass eel fishing	Glass eel	(a)							
Misc. (Specify)	Misc. (Specify)			(a)							
Other activity than fishing			Other activity than fishing								
Inactive			Inactive								
Recreational fisheries (non registered vessels or no vessels)			To be specified	Not applicable	All vessel classes (if any) combined						

(a) Not spelled out in DCR but defined with reference to relevant EU Regulation(s)

2.C.3) North Atlantic (East and West)

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	LOA classes					
Activity	Gear classes	Gear groups	Gear type	Target assemblage	Mesh size and other selective devices	< 10	10-12	12-18	18-24	24-40	> 40
Fishing activity	Dredges	Dredges	Boat dredge [DRB]	Molluscs	(a)						
			Mechanised / Suction dredge [HMD]	Molluscs	(a)						
	Trawls	Bottom trawls	Bottom otter trawl [OTB]	Molluscs	(a)						
				Crustaceans	(a)						
				Demersal fish	(a)						
				Mixed crustaceans and demersal fish	(a)						
				Mixed cephalopods and demersal fish	(a)						
				Small pelagic fish	(a)						
				Deep-water species	(a)						
				Mixed pelagic and demersal fish	(a)						
				Mixed demersal and deep water species	(a)						
			Multi-rig otter trawl [OTT]	Molluscs	(a)						
				Crustaceans	(a)						
				Demersal fish	(a)						
				Deep-water species	(a)						
				Mixed crustaceans and demersal fish	(a)						
				Mixed pelagic and demersal fish	(a)						
			Bottom pair trawl [PTB]	Demersal fish	(a)						
				Crustaceans	(a)						
				Small pelagic fish	(a)						
			Beam trawl [TBB]	Crustaceans	(a)						
				Demersal fish	(a)						
				Mixed crustaceans and demersal fish	(a)						
				Mixed demersal and cephalopods	(a)						

	Pelagic trawls	Midwater otter trawl [OTM]	Small pelagic fish	(a)						
			Demersal fish	(a)						
		Pelagic pair trawl [PTM]	Small pelagic fish	(a)						
			Large pelagic fish	(a)						
			Demersal fish	(a)						
Hooks and Lines	Rods and Lines	Hand and Pole lines [LHP] [LHM]	Finfish	(a)						
			Cephalopods	(a)						
		Trolling lines [LTL]	Large pelagic fish	(a)						
	Longlines	Drifting longlines [LLD]	Large pelagic fish	(a)						
			Demersal fish	(a)						
			Deep-water species	(a)						
		Set longlines [LLS]	Deep-water species	(a)						
			Demersal fish	(a)						
Traps	Traps	Pots and Traps [FPO]	Molluscs	(a)						
			Crustaceans	(a)						
			Finfish	(a)						
		Fyke nets [FYK]	Catadromous species	(a)						
			Demersal species	(a)						
		Stationary uncovered pound nets [FPN]	Large pelagic fish	(a)						
Nets	Nets	Trammel net [GTR]	Demersal fish	(a)						
		Set gillnet [GNS]	Small pelagic fish	(a)						
			Demersal fish	(a)						
			Crustaceans	(a)						
			Deep-water species	(a)						
		Driftnet [GND]	Small pelagic fish	(a)						
			Demersal fish	(a)						
Seines	Surrounding nets	Purse seine [PS]	Small pelagic fish	(a)						
			Large pelagic fish	(a)						
	Seines	Fly shooting seine [SSC]	Demersal fish	(a)						

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			Anchored seine [SDN]	Demersal fish	(a)						
			Pair seine [SPR]	Demersal fish	(a)						
			Beach and boat seine [SB] [SV]	Finfish	(a)						
Other gear	Other gear		Glass eel fishing	Glass eel	(a)						
Misc. (Specify)	Misc. (Specify)				(a)						
Other activity than fishing				Other activity than fishing							
Inactive				Inactive							
Recreational fisheries (non registered vessels or no vessels)				To be specified	Not applicable	All vessel classes (if any) combined					

(a) Not spelled out in DCR but defined with reference to relevant EU Regulation(s)

2.C.4) Mediterranean

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	LOA classes					
Activity	Gear classes	Gear groups	Gear type	Target assemblage	Mesh size and other selective devices	< 6	6-12	12-18	18-24	24-40	> 40
Fishing activity	Dredges	Dredges	Boat dredge [DRB]	Molluscs	(a)						
	Trawls	Bottom trawls	Bottom otter trawl [OTB]	Demersal species	(a)						
				Deep water species (b)	(a)						
				Mixed demersal species and deep water species (b)	(a)						
			Multi-rig otter trawl [OTT]	Demersal species	(a)						
			Bottom pair trawl [PTB]	Demersal species	(a)						
			Beam trawl [TBB]	Demersal species	(a)						

	Pelagic trawls	Midwater otter trawl [OTM]	Mixed demersal and pelagic species	(a)							
		Pelagic pair trawl [PTM]	Small pelagic fish	(a)							
Hooks and Lines	Rods and Lines	Hand and Pole lines [LHP] [LHM]	Finfish	(a)							
			Cephalopods	(a)							
		Trolling lines [LTL]	Large pelagic fish	(a)							
	Longlines	Drifting longlines [LLD]	Large pelagic fish	(a)							
		Set longlines [LLS]	Demersal fish	(a)							
Traps	Traps	Pots and Traps [FPO]	Demersal species	(a)							
		Fyke nets [FYK]	Catadromous species	(a)							
			Demersal species	(a)							
		Stationary uncovered pound nets [FPN]	Large pelagic fish	(a)							
Nets	Nets	Trammel net [GTR]	Demersal species	(a)							
		Set gillnet [GNS]	Small and large pelagic fish	(a)							
			Demersal species	(a)							
		Driftnet [GND]	Small pelagic fish	(a)							
			Demersal fish	(a)							
Seines	Surrounding nets	Purse seine [PS]	Small pelagic fish	(a)							
			Large pelagic fish	(a)							
		Lampara nets [LA]	Small and large pelagic fish	(a)							
	Seines	Fly shooting seine [SSC]	Demersal species	(a)							
		Anchored seine [SDN]	Demersal species	(a)							
		Pair seine [SPR]	Demersal species	(a)							
		Beach and boat seine [SB] [SV]	Demersal species	(a)							
Other gear	Other gear	Glass eel fishing	Glass eel	(a)							
Misc. (Specify)	Misc. (Specify)			(a)							
Other activity than fishing			Other activity than fishing								
Inactive			Inactive								

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	Recreational fisheries (non registered vessels or no vessels)	To be specified	Not applicable	All vessel classes (if any) combined

(a) Not spelled out in DCR but defined with reference to relevant EU Regulation(s)

(b) Refering only to red shrimps *Aristaeomorpha foliacea* and *Aristeus antennatus*, species not included in the definition of deep sea species given by Council Regulation (EC) 2347/2002.

2.C.5) Long Distance Fisheries

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	LOA classes					
Activity	Gear classes	Gear groups	Gear type	Target assemblage	Mesh size and other selective devices	< 10	10-12	15-18	18-24	24-40	> 40
Fishing activity	Trawls	Bottom trawls	Bottom otter trawl [OTB]	Crustaceans	(a)						
				Demersal fish	(a)						
				Mixed cephalopods and demersal fish	(a)						
			Multi-rig otter trawl [OTT]	Crustaceans	(a)						
		Pelagic trawls	Midwater otter trawl [OTM]	Small pelagic fish	(a)						
	Hooks and Lines	Rods and Lines	Hand and Pole lines [LHP] [LHM]	Large pelagic fish	(a)						
				Demersal fish	(a)						
		Longlines	Drifting longlines [LLD]	Large pelagic fish	(a)						
			Set longlines [LLS]	Demersal fish	(a)						
	Traps	Traps	Pots and Traps [FPO]	Crustaceans	(a)						
				Finfish	(a)						
	Nets	Nets	Trammel net [GTR]	Demersal fish	(a)						
			Set gillnet [GNS]	Demersal fish	(a)						
			Driftnet [GND]	Demersal fish	(a)						
	Seines	Surrounding nets	Purse seine [PS]	Small pelagic fish	(a)						

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			Large pelagic fish	(a)						
Misc. (Specify)	Misc. (Specify)			(a)						
Other activity than fishing			Other activity than fishing							
Inactive			Inactive							
Recreational fisheries (non registered vessels or no vessels)			To be specified	Not applicable						

(a) Not spelled out in DCR but defined with reference to relevant EU Regulation(s)

Appendix 2.D: The disaggregation levels for the collection of data

		Sub regions or fishing grounds	Regions	Supra regions
		1	**2**	**3**
Métier*Fleet segment (Cell)	**A**	A1	A2	A3
Métier	**B**	B1	B2	B3
Fleet segment	**C**	C1	C2	C3

Footnote:

Considering the place where the fishing activity occurs which could refer to sub regions, regions or supra regions and the appendix 2.A, the appendix 2.D summarizes the different levels for the collection of data (or disaggregation levels).

Appendix 3: Economic variables

Variable group (Heading)	Variable	Specification for the collection of data [19]	Unit	Definition Structural Business Statistics (SBS) Council Regulation (EC) No 2700/98	Guideline
Income	Gross value of landings	Transversal	Euro	12 11 0 excl. para 4	
	Income from leasing out quota or other fishing rights	Economic	Euro	12 11 0 excl. para 4	
	Direct subsidies[1]	Economic	Euro	12 11 0 excl. para 4	
	Other income[2]	Economic	Euro	12 11 0 excl. para 4	
Personnel costs	Wages and salaries of crew[3]	Economic	Euro	13 31 0	
	Imputed value of unpaid labour[4]	Economic	Euro	13 32 0	
			Euro		
Energy costs	Energy costs[5]	Economic	Euro	20 11 0	

Variable group (Heading)	Variable	Specification for the collection of data [19]	Unit	Definition Structural Business Statistics (SBS) Council Regulation (EC) No 2700/98	Guideline
				(13 11 0)	
Repair and maintenance costs	Repair and maintenance costs[6]	Economic	Euro	(13 11 0)	3.70. e) (1)(2)
Other operational costs	Variable costs[7]	Economic	Euro	(13 11 0)	
	Non-variable costs[8]	Economic	Euro	(13 11 0)	
	Lease/rental payments for quota or other fishing rights	Economic	Euro	(13 11 0)	
Capital costs	Annual depreciation[9]	Economic	Euro		6.02 .to 6.05.
Capital value	Value of physical capital: depreciated replacement value[10]	Economic	Euro		7.09. to 7.24
	Value of physical capital: depreciated historical value[10]	Economic	Euro		7.09. to 7.24
	Value of quota and other fishing rights[11]	Economic	Euro		7.09. to 7.24

Variable group (Heading)	Variable	Specification for the collection of data [19]	Unit	Definition Structural Business Statistics (SBS) Council Regulation (EC) No 2700/98	Guideline
Investments	Investments in physical capital[12]	Economic	Euro	15 11 0	3.102. to 3.111.
Financial position	Debt/asset ratio[13]	Economic	%		
Employment	Engaged crew[14]	Economic	Number	16 11 0; 16 13 0; 16 13 1; 16 13 2 16 13 5; 16 14 0 16 15 0	11.32. to 11.34
	FTE National[15]	Economic	Number	16 11 0; 16 13 0 16 13 1; 16 13 2 16 13 5; 16 14 0 16 15 0	11.32. to 11.34
	FTE harmonised[16]	Economic	Number	16 11 0; 16 13 0 16 13 1; 16 13 2 16 13 5; 16 14 0 16 15 0	11.32. to 11.34

Variable group (Heading)	Variable	Specification for the collection of data [19]	Unit	Definition Structural Business Statistics (SBS) Council Regulation (EC) No 2700/98	Guideline
Fleet	Number	Transversal	Number	N/A	N/A
	Mean LOA	Transversal	Metres	N/A	N/A
	Mean GT	Transversal	GT	N/A	N/A
	Mean kW	Transversal	kW	N/A	N/A
	Mean age	Transversal	Years	N/A	N/A
Effort	Days at sea	Transversal	Days	N/A	N/A
	Energy consumption	Economic	Litres	N/A	N/A
Number of fishing enterprises/units	Number of fishing enterprises/units[17]	Economic By size category: 1. 1 owned vessel 2. 2-5 owned vessels 3. >5 owned vessels	Number	N/A	N/A

Production value per species	Value of landings per species	Transversal	Euro	N/A	N/A
	Average price per species[18]	Transversal	Euro/kg	N/A	N/A

Footnotes

1. Includes direct payments, e.g., compensation for stopping fishing, refunds of fuel duty or similar lump sum compensation payments. Excludes social benefit payments, indirect subsidies, e.g., reduced duty on inputs such as fuel, investment subsidies.
2. Includes other income from use of the vessel, e.g., recreational fishing, tourism, oil rig duty, etc, also insurance payments for damage/loss of gear/vessel.
3. Including social security costs.
4. For example, the vessel owner's own labour. Chosen methodology should be explained by the Member State in their National Programme.
5. Excluding lubrication oil. Broken down by type if possible (petrol, diesel, biofuel, etc.),
6. Gross costs of maintenance and repairs to vessel and gear
7. Includes all purchased inputs (goods and services) related to fishing effort and/or catch/landings.
8. Includes purchased inputs not related to effort and/or catch/landings (including leased equipment).
9. Estimated according to [the proposed PIM methodology in the capital valuation report]. The data and estimation procedures should be explained in the National Programme.
10. Value of the vessel, i.e., the hull, engine, all onboard equipment and the gear. Estimated according to [the proposed PIM methodology in the capital valuation report]. The data and estimation procedures should be explained in the National Programme.
11. Where appropriate. Methodology for estimation to be explained in the National Programme.
12. Improvements to existing vessel/gear during the given year
13. % debt in relation to total capital value (as defined above)
14. Number of jobs on board, equal to the average number of persons working for and paid by the vessel. This includes temporary crew as well as rotation crew. [Study FISH/2005/14, "FTE Report"]
15. Full-time equivalent (FTE) based on the national reference level for FTE working hours.of the crew members on board the vessel (excluding resting time) and the working hours onshore. If the annual working hours per crew member exceed the reference level, the FTE equals 1 per crew member. If not, the FTE equals the ratio between the hours worked and the reference level. [The methodology should be in accordance with the Study FISH/2005/14, "FTE Report" as amended by the SGECA meeting in Salerno and should be explained in the national programme.]
16. Full-time equivalent (FTE) based on a threshold of 2000 hours per FTE using the same methodology as in footnote 15.

17. Situation at 1st of January as defined in the fleet register. Shared ownership (involving more than one person) should be regarded as one unit.
18. Prices in euros per kilo live weight
19. Economic variables are to be collected on an annual basis at the C3 level (Appendix 2.D) with the exception of those identified as transversal variables and collected at more disaggregated levels (as defined in the Appendix 5) and periodicity.

Appendix 4: Biological variables: Species sampling specification

Species (Engl.)	Species (Latin)	Area/Stock	Species group	Age no/1000t	Weight	Sex	Maturity	Fecundity
ICES areas I, II								
European Eel	*Anguilla anguilla*	I, II	G1	(a)	T	T	T	
Atlanto-Scandian herring	*Clupea harengus*	I, II	G1		Y	Y	Y	
Atlanto-Scandian herring	*Clupea harengus*	IIa, V		25				
Cod	*Gadus morhua*	I, II	G1	125	Y	Y	Y	
Haddock	*Melanogrammus aeglefinus*	I, II	G1	125	Y	Y	Y	
Blue whiting	*Micromesistius poutassou*	I-IX, XII, XIV	G1	50	Y	Y	Y	
Northern shrimp	*Pandalus borealis*	I, II	G1		Y	Y	Y	
Saithe	*Pollachius virens*	I, II	G1	250	Y	Y	Y	
Greenland halibut	*Reinhardtius hippoglossoides*	I, II	G1	50	Y	Y	Y	
Redfish	*Sebastes* spp.	I, II	G1	200	Y	Y	Y	
Horse mackerel	*Trachurus trachurus*	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde		25				
Capelin	*Mallotus villosus*	I, II						
Skagerrak and Kattegat - ICES area IIIa								
Sand eel	*Ammodytidae*	IIIa		50				
European Eel	*Anguilla anguilla*	IIIa	G1	(a)	T	T	T	
Herring	*Clupea harengus*	IV, VIId, IIIa/22-24, IIIa	G1	100	Y	Y	Y	
Cod	*Gadus morhua*	IV, VIId, IIIaN	G1	250	Y	Y	Y	
Cod	*Gadus morhua*	IIIaS	G1	500	Y	Y	Y	
Dab	*Limanda limanda*	IIIa		500				
Haddock	*Melanogrammus aeglefinus*	IV, IIIa	G1	500	Y	Y	Y	

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Whiting	*Merlangius merlangus*	IIIa	G2	500	T	T	T	
Hake	*Merluccius merluccius*	IIIa, IV, VI, VII, VIIIab	G1	500	Y	Y	Y	
Blue whiting	*Micromesistius poutassou*	I-IX, XII, XIV	G2	50	T	T	T	
Norway lobster	*Nephrops norvegicus*	Functional unit	G1		Y	Y	Y	
~~Pandalid~~ Northern shrimp	*Pandalus borealis*	IIIa, IVa east	G1		Y	Y	Y	
Plaice	*Pleuronectes platessa*	IIIa	G1	250	Y	Y	Y	
Saithe	*Pollachius virens*	IV, IIIa, VI	G1	500	Y	Y	Y	
Mackerel	*Scomber scombrus*	IIIa, IVbc, VIId		100				
Sole	*Solea solea*	IIIa	G1	1000	Y	Y	Y	
Sprat	*Sprattus sprattus*	IIIa	G1	100	Y	Y	Y	
Sharks	*Squalidae*	IIIa N						
Norway pout	*Trisopterus esmarki*	IV, IIIa		50				

Baltic Sea— ICES area IIIb-d								
European Eel	*Anguilla anguilla*	IIIb-d	G1	(a)	T	T	T	
Herring	*Clupea harengus*	22-24/25-29, 32/30/31/ Gulf of Riga	G1	100	Y	Y	Y	
Common Whitefish	*Coregonus lavaretus*	IIId	G2	500	T	T	T	
Pike	*Esox lucius*	IIId	G2	500	T	T	T	
~~Cod~~	*~~Gadus morhua~~*	~~IIIa S~~		~~500~~				
Cod	*Gadus morhua*	IIIb-d	G1	125	Y	Y	Y	
Dab	*Limanda limanda*	~~IIIa S,~~ IIIb-d	G2	250	T	T	T	
~~Haddock~~	*~~Melanogrammus aeglefinus~~*	~~IIIa S~~		~~500~~				
~~Whiting~~	*~~Merlangius merlangus~~*	~~IIIa S~~		~~500~~				
~~Hake~~	*~~Merluccius merluccius~~*	~~IIIa, IV, VI, VII, VIIIab~~		~~500~~				
~~Blue whiting~~	*~~Micromesistius poutassou~~*	~~I-IX, XII, XIV~~		~~50~~				
~~Norway lobster~~	*~~Nephrops norvegicus~~*	~~Functional unit~~		~~-~~				
Perch	*Perca fluviatilis*	IIId	G2	500	T	T	T	
Flounder	*Platichtys flesus*	IIIb-d	G2	500	T	T	T	

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Plaice	*Pleuronectes platessa*	IIIa S		500				
Plaice	*Pleuronectes platessa*	IIIb-d	G2	250	T	T	T	
Saithe	*Pollachius virens*	IIIa S		500				
Turbot	*Psetta maxima*	IIIb-d	G2	500	T	T	T	
Salmon	*Salmo salar*	22-31 / 32	G1	500	Y	Y	Y	
Sea trout	*Salmo trutta*	IIIb-d	G2	500	T	T	T	
Sole	*Solea solea*	IIIa		1000				
Sprat	*Sprattus sprattus*	IIIa S		50				
Sprat	*Sprattus sprattus*	IIIb-d	G1	25	Y	Y	Y	
Pike-perch	*Stizostedion lucioperca*	IIId	G2	500	T	T	T	

North Sea and eastern Channel — ICES areas IV, VIId								
Sand eel	*Ammodytidae*	IV		25				
European Eel	*Anguilla anguilla*	IV, VIId	G1	(a)	T	T	T	
Catfish	*Anarhichas* spp.	IV	G2	250	T	T	T	
Argentine	*Argentina* spp.	IV	G2	100	T	T	T	
Tusk	*Brosme brosme*	IV, IIIa	G2	250	T	T	T	
Herring	*Clupea harengus*	IV, VIId, IIIa	G1	25	Y	Y	Y	
Common Shrimp	*Crangon crangon*	IV, VIId	G2		T	T	T	
Sea bass	*Dicentrarchus labrax*	IV, VIId	G1	250	Y	Y	Y	
Cod	*Gadus morhua*	IV, VIId, IIIa	G1	125	Y	Y	Y	
Witch flounder	*Glyptocephalus cynoglossus*	IV	G2	250	T	T	T	
Blue-mouth rockfish	*Helicolenus dactylopterus*	IV	G2	250	T	T	T	
Four-spot megrim	*Lepidorhombus boscii*	IV, VIId	G2	50	T	T	T	
Megrim	*Lepidorhombus whiffiagonis*	IV, VIId	G2	50	T	T	T	
Dab	*Limanda limanda*	IV, VIId	G2	250	T	T	T	
Black-bellied angler	*Lophius budegassa*	IV, VIId	G2	125	T	T	T	
Anglerfish	*Lophius piscatorius*	IIIa, IV, VI	G2	125	T	T	T	

Roughhead grenadier	*Macrourus berglax*	IV, IIIa	G2	250	T	T	T	
Haddock	*Melanogrammus aeglefinus*	IV, IIIa	G2	125	T	T	T	
Whiting	*Merlangius merlangus*	IV, VIId	G1	50	Y	Y	Y	
Hake	*Merluccius merluccius*	IIIa, IV, VI, VII, VIIIab	G1	250	Y	Y	Y	
Blue whiting	*Micromesistius poutassou*	I-IX, XII, XIV	G2	50	T	T	T	
Lemon sole	*Microstomus kitt*	IV, VIId	G2	125	T	T	T	
Blue ling	*Molva dypterygia*	IV, IIIa	G2	250	T	T	T	
Ling	*Molva molva*	IV, IIIa	G2	250	T	T	T	
Red mullet	*Mullus barbatus*	IV, VIId	G2	250	T	T	T	
Striped red mullet	*Mullus surmuletus*	IV, VIId	G1	250	Y	Y	Y	
Norway lobster	*Nephrops norvegicus*	Functional unit	G1		Y	Y	Y	
Northern shrimp	*Pandalus borealis*	IIIa, IVa east/IVa	G2		T	T	T	
Common scallop	*Pecten maximus*	VIId	G2		T	T	T	
Forkbeard	*Phycis phycis*	IV	G2	250	T	T	T	
Plaice	*Pleuronectes platessa*	IV	G1	50	Y	Y	Y	
Plaice	*Pleuronectes platessa*	VIId	G1	500	Y	Y	Y	
Saithe	*Pollachius virens*	IV, IIIa, VI	G1	125	Y	Y	Y	
Turbot	*Psetta maxima*	IV, VIId	G1	125	Y	Y	Y	
Thornback ray	*Raja clavata*	IV, VIId	G2		T	T	T	
Spotted ray	*Raja montagui*	IV, VIId	G2		T	T	T	
Cuckoo ray	*Raja naevus*	IV, VIId	G2		T	T	T	
Starry ray	*Raja radiata*	IV, VIId	G2		T	T	T	
Other rays and skates	*Rajidae*	IV, VIId	G2		T	T	T	
Greenland halibut	*Reinhardtius hippoglossoides*	IV	G2	250	T	T	T	
Salmon	*Salmo salar*	IV	G2	250	T	T	T	
Mackerel	*Scomber scombrus*	IIIa, IVbc, VIId	G1	25	Y	Y	Y	
Brill	*Scophthalmus rhombus*	IV, VIId	G2	125	T	T	T	
Redfish	*Sebastes* spp.	IV	G2	250	T	T	T	
Deepwater shark	Shark-like *Selachii*	IV	G2		T	T	T	

Small shark	Shark-like *Selachii*	IV, VIId	G2		T	T	T	
Sole	*Solea solea*	IV	G1	125	Y	Y	Y	
Sole	*Solea solea*	VIId	G1	500	Y	Y	Y	
Sprat	*Sprattus sprattus*	IV/VIIde	G2	25	T	T	T	
Spurdog	*Squalus acanthias*	IV, VIId	G2		T	T	T	
Horse mackerel	*Trachurus* spp.	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde/IIIa, IVbc, VIId	G2	25	T	T	T	T
Norway pout	*Trisopterus esmarki*	IV, IIIa		25				

NE Atlantic and western Channel - ICES V, VI, VII (excluding d), VIII, IX, X, XII, XIV								
~~Baird's smooth head~~	~~*Alepocephalus bairdii*~~	~~VI b1 , XII b~~	~~G3~~					
European eel	*Anguilla anguilla*	all areas	G1	(a)	T	T	T	
Scabbardfish	*Aphanopus* spp.	all areas, ~~excluding IXa, X~~	G1	50	Y	Y	Y	
~~Scabbardfish~~	~~*Aphanopus* spp.~~	~~IXa, X~~	~~G1~~	~~500~~	~~Y~~	~~Y~~	~~Y~~	-
Argentine	*Argentina* spp.	all areas	G1	100	Y	Y	Y	
Meagre	*Argyrosoma regius*	all areas	G2	50	T	T	T	
Alfonsinos	*Beryx* spp.	all areas, excluding X and IXa	G1	50	Y	Y	Y	
Alfonsinos	*Beryx* spp.	X and IXa	G2	1250	T	T	T	
~~Whelk~~	~~*Buccinum* spp.~~	~~all areas~~	~~G3~~	~~50~~	-	-	-	
Edible crab	*Cancer pagurus*	all areas	G2		T	T	T	
Gulper shark	*Centrophorus granulosus*	all areas	G2		T	T	T	
Leafscale gulper shark	*Centrophorus squamosus*	all areas	G2		T	T	T	
Portuguese dogfish	*Centroscymnus coelolepis*	all areas	G2		T	T	T	
Herring	*Clupea harengus*	VIa/VIaN/VIaS, VIIbc/VIIa/VIIj	G2	25	T	T	T	
Conger	*Conger conger*	all areas, excluding X	G2	25	T	T	T	
Conger	*Conger conger*	X	G2	500	T	T	T	
Roundnose grenadier	*Coryphaenoides rupestris*	all areas	G1	100	Y	Y	Y	

Sea bass	*Dicentrarchus labrax*	all areas, excluding IX	G1	125	Y	Y	Y	
Sea bass	*Dicentrarchus labrax*	IX	G1	25	Y	Y	Y	
Wedge sole	*Dicologoglosa cuneata*	VIIIc, IX		100				
~~Anchovy~~	*~~Engraulis encrasicolus~~*	~~IXa (only Cádiz)~~	~~G1~~	~~-~~	~~Y~~	~~Y~~	~~Y~~	~~Y~~
Anchovy	*Engraulis encrasicolus*	VIII / Ixa (only Cádiz)	G1	125	Y	Y	Y	Y
Cod	*Gadus morhua*	Va/Vb/VIa/VIb/VIIa/VIIe-k	G1	125	Y	Y	Y	
Witch	*Glyptocephalus cynoglossus*	VI, VII		50				
Bluemouth rockfish	*Helicolenus dactylopterus*	all areas, ~~excluding IXa, X~~		100				
~~Bluemouth rockfish~~	*~~Helicolenus dactylopterus~~*	~~IXa, X~~	~~G3~~	~~500~~				
Lobster	*Homarus gammarus*	all areas	G2		T	T	T	
Orange roughy	*Hoplostethus atlanticus*	all areas	G1	50	Y	Y	Y	
Four-spot megrim	*Lepidorhombus boscii*	VIIIc, IXa	G1	500	Y	Y	Y	
Megrim	*Lepidorhombus whiffiagonis*	VII, VIIIabd/VIIIc, IXa	G1	500	Y	Y	Y	
Common squid	*Loligo vulgaris*	all areas, excluding VIIIc, IXa						
Common squid	*Loligo vulgaris*	VIIIc, IXa	G2		T	T	T	
Black-bellied angler	*Lophius budegassa*	IV, VI/VIIb-k, VIIIabd	G1	250	Y	Y	Y	
Black-bellied angler	*Lophius budegassa*	VIIIc, IXa	G1	1000	Y	Y	Y	
Anglerfish	*Lophius piscatorious*	IV, VI/VIIb-k, VIIIabd	G1	250	Y	Y	Y	
Anglerfish	*Lophius piscatorious*	VIIIc, IXa	G1	1000	Y	Y	Y	
Capelin	*Mallotus villosus*	XIV		50				
Haddock	*Melanogrammus aeglefinus*	Va/Vb	G2	25	T	T	T	
Haddock	*Melanogrammus aeglefinus*	VIa/VIb/VIIa/VIIb-k	G1	100	Y	Y	Y	
Whiting	*Merlangius merlangus*	VIII/IX, X	G2	25	T	T	T	
Whiting	*Merlangius merlangus*	Vb/VIa/VIb/VIIa/VIIe-k	G1	500	Y	Y	Y	
Hake	*Merluccius merluccius*	IIIa, IV, VI, VII, VIIIab / VIIIc, IXa	G1	500	Y	Y	Y	
Thickback sole	*Microchirus variegatus*	all areas	G3	50				
Blue whiting	*Micromesistius poutassou*	I-IX, XII, XIV	G1	25	Y	Y	Y	

Lemon sole	*Microstomus kitt*	all areas	G2	125	T	T	T	
Blue ling	*Molva dypterygia*	all areas, excluding X	G1	125	Y	Y	Y	
Blue ling	*Molva dypterygia*	X	G1	1250	Y	Y	Y	
Ling	*Molva molva*	all areas	G1	125	Y	Y	Y	
Striped red mullet	*Mullus surmuletus*	all areas	G1	125	Y	Y	Y	
Norway lobster	*Nephrops norvegicus*	VI Fuctional unit	G1		Y	Y	Y	
Norway lobster	*Nephrops norvegicus*	VII Functional unit	G1		Y	Y	Y	
Norway lobster	*Nephrops norvegicus*	VIII, IX Functional unit	G1		Y	Y	Y	
Common octopus	*Octopus vulgaris*	all areas, excluding VIIIc, IXa	G2		T	T	T	
Common octopus	*Octopus vulgaris*	VIIIc, IXa	G2		T	T	T	
Pandalid shrimps	*Pandalus* spp.	all areas						
White shrimp	*Parapenaeus longirostris*	IXa	G2		T	T	T	
Forkbeard	*Phycis phycis*	all areas, ~~excluding X~~	G2	50	T	T	T	
~~Forkbeard~~	~~*Phycis blennoides*~~	~~all areas, excluding X~~	~~G3~~	~~500~~				
~~Forkbeard~~	~~*Phycis phycis*~~	~~X~~	~~-~~					
Plaice	*Pleuronectes platessa*	VIIa/VIIe/VIIfg	G1	1000	Y	Y	Y	
Plaice	*Pleuronectes platessa*	VIIbc/VIIh-k/VIII, IX, X	G1	25	Y	Y	Y	
Pollack	*Pollachius pollachius*	all areas except IX, X	G2	25				
Pollack	*Pollachius pollachius*	IX, X	G2	500	T	T	T	
Saithe	*Pollachius virens*	Va/Vb/IV, IIIa, VI	G1	100	Y	Y	Y	
Saithe	*Pollachius virens*	VII, VIII	G2					
Wreckfish	*Polyprion americanus*	X		1250				
Blond ray	*Raja brachyura*	all areas	G2		T	T	T	
Thornback ray	*Raja clavata*	all areas	G2		T	T	T	
Spotted ray	*Raja montagui*	all areas	G2		T	T	T	
Cuckoo ray	*Raja naevus*	all areas	G2		T	T	T	
Other rays and skates	*Rajidae*	all areas						
Greenland halibut	*Reinhardtius hippoglossoides*	V, XIV/VI	G2	~~2500~~ 500				

Salmon	*Salmo salar*	all areas		50				
Sardine	*Sardina pilchardus*	VIIIabd/VIIIc, IXa	G1	500	Y	Y	Y	T
Spanish mackerel	*Scomber japonicus*	VIII, IX	G2	125	T	T	T	
Mackerel	*Scomber scombrus*	II, IIIa, IV, V, VI, VII, VIII, IX ~~(excluding VIIIc, IXa)~~	G1	25	Y	Y	Y	T
~~Mackerel~~	*~~Scomber scombrus~~*	~~VIIIc, IXa~~	~~G1~~	~~125~~	~~Y~~	~~Y~~	~~Y~~	~~T~~
Redfishes	*Sebastes mentella*	V, VI, XII, XIV	G1	500	Y	Y	Y	
Cuttlefish	*Sepia officinalis*	~~Mackerel(??),~~all areas	G2		T	T	T	
~~Cuttlefish~~	*~~Sepia officinalis~~*	~~VIIIc, IXa~~	~~G2~~	-	T	T	T	
Sole	*Solea solea*	VIIa/VIIfg	G2	1000	T	T	T	
Sole	*Solea solea*	VIIbc / VIIhjk / Ixa / VIIIc	G1	~~25~~	Y	Y	Y	
Sole	*Solea solea*	VIIe	G1	1000	Y	Y	Y	
Sole	*Solea solea*	VIIIab	G1	500	Y	Y	Y	
Razor clams	*Solen* spp.	all areas						
Sea breams (in plural)	*Sparidae*	all areas, ~~excluding VIIIc, IXa, X~~		50				
~~Sea breams~~	*~~Sparidae~~*	~~VIIIc, IXa, X~~	~~G1~~	500	Y	Y	Y	
Sea bream	*Pagellus bogaraveu*	IXa, X	G2		T	T	T	
Spurdog	*Squalus acanthias*	all areas						
Mediterranean horse mackerel	*Trachurus mediterraneus*	VIII, IX	G1	25	Y	Y	Y	
Blue jack mackerel	*Trachurus picturatus*	X	G1	500	Y	Y	Y	
Horse mackerel	*Trachurus trachurus*	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde/X	G1	25	Y	Y	Y	T
Horse mackerel	*Trachurus trachurus*	VIIIc, IXa	G1	500	Y	Y	Y	T
~~Pouting~~	*~~Trisopterus luscus~~*	~~VIIIc, IXa~~	~~G2~~	~~500~~	T	T	T	
Pouting	*Trisopterus* spp.	all areas, ~~excluding VIIIc, IXa~~	G2	50	T	T	T	
Other deepwater species	Other deepwater species	all areas		50				

Mediterranean

European Eel	*Anguilla anguilla*	all areas	G1	(a)	T	T	T	
Giant red shrimp	*Aristeomorpha foliacea*	1.3, 2.2, 3.1	G1		Y	Y	Y	
Red shrimp	*Aristeus antennatus*	1.1, 1.3, 2.2, 3.1	G1		Y	Y	Y	
Bogue	*Boops boops*	1.3, 2.1, 2.2, 3.1	G2		T	T	T	
Dolphinfish	*Coryphaena hippurus*	all areas	G2	1000	T	T	T	
Dolphinfish	*Coryphaena equiselis*	all areas	G2	1000	T	T	T	
Sea bass	*Dicentrarchus labrax*	1.2	G2	100	T	T	T	
Horned octopus	*Eledone cirrosa*	1.1, 1.3, 2.1, 2.2, 3.1	G2		T	T	T	
Musky octopus	*Eledone moschata*	1.3, 2.1, 2.2, 3.1	G2		T	T	T	
Anchovy	*Engraulis encrasicolus*	all areas	G1	125	Y	Y	Y	
Grey gurnard	*Eutrigla gurnardus*	1.3, 2.2, 3.1	G2	250	T	T	T	
Squid	*Illex* spp., *Todarodes* spp.	1.3, 2.1, 2.2, 3.1	G2		T	T	T	
Billfish	*Istiophoridae*	all areas	G2	500	T	T	T	
Common squid	*Loligo vulgaris*	1.3, 2.2, 3.1	G2		T	T	T	
Black-bellied angler	*Lophius budegassa*	1.1, 1.2, 1.3, 2.2, 3.1	G2	250	T	T	T	
Anglerfish	*Lophius piscatorius*	1.1, 1.2, 1.3, 2.2, 3.1	G2	250	T	T	T	
Hake	*Merluccius merluccius*	all areas	G1	250	Y	Y	Y	
Blue whiting	*Micromesistius poutassou*	1.1, 3.1	G2	250	T	T	T	
Grey mullets	*Mugilidae*	1.3, 2.1, 2.2, 3.1	G2	250	T	T	T	
Red mullet	*Mullus barbatus*	all areas	G1	250	Y	Y	Y	
Striped red mullet	*Mullus surmuletus*	all areas	G2	250	T	T	T	
Norway lobster	*Nephrops norvegicus*	1.1, 1.3, 2.1, 2.2, 3.1	G1		Y	Y	Y	
Common octopus	*Octopus vulgaris*	all areas	G2		T	T	T	
Pandora	*Pagellus erythrinus*	1.1, 1.2, 1.3, 2.1, 2.2, 3.1	G2	125	T	T	T	
White shrimp	*Parapenaeus longirostris*	1.1, 1.3, 2.2, 3.1	G1		Y	Y	Y	
Caramote prawn	*Penaeus kerathurus*	3.1	G2		T	T	T	
Thornback ray	*Raja clavata*	1.3, 2.1, 2.2, 3.1	G2		T	T	T	
Brown ray	*Raja miraletus*	1.3, 2.1, 2.2, 3.1	G2		T	T	T	

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Atlantic bonito	*Sarda sarda*	all areas	G2	50	T	T	T	
Sardine	*Sardina pilchardus*	all areas	G1	125	Y	Y	Y	
Mackerel	*Scomber* spp.	1.3, 2.2, 3.1	G2	50	T	T	T	
Cuttlefish	*Sepia officinalis*	1.3, 2.1, 3.1	G2		T	T	T	
Sharks	Shark-like *Selachii*	all areas	G2		T	T	T	
Sole	*Solea vulgaris*	1.2, 2.1, 3.1	G1	100	Y	Y	Y	
Gilthead sea bream	*Sparus aurata*	1.2, 3.1	G2	100	T	T	T	
Picarels	*Spicara* spp.	1.3, 2.1, 2.2, 3.1	G2	100	T	T	T	
Mantis shrimp	*Squilla mantis*	1.3, 2.1, 2.2	G2		T	T	T	
Albacore	*Thunnus alalunga*	all areas	G2	1000	T	T	T	
Bluefin tuna	*Thunnus thynnus*	all areas	G1	1000	T	T	T	
Mediterranean horse mackerel	*Trachurus mediterraneus*	1.1, 1.3, 3.1	G2	50	T	T	T	
Horse mackerel	*Trachurus trachurus*	1.1, 1.3, 3.1	G2	50	T	T	T	
Tub gurnard	*Trigla lucerna*	1.3, 2.2, 3.1	G2	250	T	T	T	
Clam	*Veneridae*	2.1, 2.2	G2		T	T	T	
Swordfish	*Xiphias gladius*	all areas	G1	1000	T	T	T	
NAFO areas								
Cod	*Gadus morhua*	2J 3KL	G1	2500	Y		Y	
Cod	*Gadus morhua*	3M	G1	2500	Y		Y	
Cod	*Gadus morhua*	3NO	G1	2500	Y		Y	
Cod	*Gadus morhua*	3Ps	G1	25	Y		Y	
Cod	*Gadus morhua*	SA 1	G1	25	Y		Y	
Witch flounder	*Glyptocephalus cynoglossus*	3NO	G1	5000	Y		Y	
American plaice	*Hippoglossoides platessoides*	3LNO	G1	2500	Y		Y	
American plaice	*Hippoglossoides platessoides*	3M	G1	2500	Y		Y	
Yellowtail flounder	*Limanda ferruginea*	3LNO	G1	5000	Y		Y	
Grenadier	*Macrouridae*	SA 2+3	G3	2500				
Pandalid shrimp	*Pandalus* spp.	3L~~N~~	G1		Y		Y	

Pandalid shrimp	*Pandalus* spp.	3M	G1		Y		Y	
Rays and skates	*Raja* spp.	SA 3	G1		Y		Y	
Greenland halibut	*Reinhardtius hippoglossoides*	3KLMNO	G1	~~2500~~ 500	Y		Y	
Greenland halibut	*Reinhardtius hippoglossoides*	SA 1	G1	~~2500~~ 500	Y		Y	
Redfish	*Sebastes* spp.	3LN	G1	~~5000~~ 500	Y		Y	
Redfish	*Sebastes* spp.	3M	G1	~~2500~~ 500	Y		Y	
Redfish	*Sebastes* spp.	3O	G1	~~1000~~ 500	Y		Y	
Redfish	*Sebastes* spp.	SA 2 + (Div. 1F+3K)	G1	~~5000~~ 500	Y		Y	

Highly migratory species, Atlantic, Indian, Pacific Oceans								
Frigate tuna	*Auxis* spp.		G1		T	T	T	
Atlantic back skipjack	*Euthynnus alleteratus*		G1		T	T	T	
Billfish	*Istiophoridae*		G1		T	T	T	
Shortfin mako	*Isurus oxyrinchus*		G1		T	T	T	
Skipjack tuna	*Katsuwonus pelamis*		G1		T	T	T	
Porbeagle	*Lamna nasus*		G1		T	T	T	
Blue shark	*Prionace glauca*		G1		T	T	T	
Atlantic bonito	*Sarda sarda*		G1		T	T	T	
Other sharks	*Squalidae*		G1		T	T	T	
Albacore	*Thunnus alalunga*		G1		T	T	T	
Yellowfin tuna	*Thunnus albacares*		G1		T	T	T	
Bigeye tuna	*Thunnus obesus*		G1		T	T	T	
Bluefin tuna	*Thunnus thynnus*		G1		T	T	T	
Swordfish	*Xiphias gladius*		G1		T	T	T	

CECAF FAO 34								
Black scabbardfish	*Aphanopus carbo*	Madeira	G1		T	T	T	
Anchovy	*Engraulis encrasicolus*	Morocco	G3					
Silver scabbardfish	*Lepidopus caudatus*	Mauritania	G2		T	T	T	

Common squid	*Loligo vulgaris*	Atlantic EC	G1		T	T	T	
Hake	*Merluccius* spp.	Atlantic EC	G1		T	T	T	
Common octopus	*Octopus vulgaris*	Atlantic EC	G1		T	T	T	
Deepwater rose shrimp	*Parapenaeus longirostris*	Atlantic EC	G1		T	T	T	
Southern pink shrimp	*Penaeus notialis*	Atlantic EC	G1		T	T	T	
Bonito	*Sarda sarda*	Mauritania	G2		T	T	T	
Sardine	*Sardina pilchardus*	Mauritania, Atlantic EC	G1		T	T	T	
Round sardinella	*Sardinella aurita*	Mauritania, Atlantic EC	G1		T	T	T	
Short-body sardinella	*Sardinella maderensis*	Mauritania, Atlantic EC	G2		T	T	T	
Mackerel	*Scomber colias*	Mauritania, Atlantic EC	G1		T	T	T	
Chub mackerel	*Scomber japonicus*	Madeira	G3					
Chub mackerel	*Scomber japonicus*	Mauritania	G2		T	T	T	
Cuttlefish	*Sepia hierredda*	Atlantic EC	G1		T	T	T	
Finfish	*Sparidae, Serranidae, Haemulidae*	Atlantic EC	G3					
Horse mackerel	*Trachurus* spp.	Madeira	G1		T	T	T	
Horse mackerel	*Trachurus spp.*	Mauritania, Atlantic EC	G1		T	T	T	
Atlantic horse mackerel	*Trachurus trachurus*	Mauritania	G2		T	T	T	
Cunene horse mackerel	*Trachurus trecae*	Mauritania	G2		T	T	T	
Scabbardfish	*Trichiuridae*		G2		T	T	T	

WECAF								
Red snapper	*Lutjanus purpureus*	French Guiana EEZ	G2		T	T	T	
Penaeus shrimp	*Penaeus subtilis*	French Guiana EEZ	G1		Y	Y	Y	

CCAMLR FAO 58								
Antarctic icefish	*Champsocephalus gunnari*	Kerguelen						
Antarctic toothfish	*Dissostichus eleginoides*	Kerguelen		500				
Grenadier	*Macrouridae*	Kerguelen Crozet						

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Grey rock cod	*Notothenia squamifrons*	Kerguelen						
Rays and skates	*Raja* spp.	Kerguelen Crozet						

South-west Atlantic FAO 41								
Antarctic toothfish	*Dissostichus eleginoides*	Argentina/UK		500				
Cusk eel	*Genypterus blacodes*	Argentina/UK		500				
Argentine shortfinned squid	*Illex argentinus*	Argentina/UK						
Patagonian squid	*Loligo gahi*	Argentina/UK						
Grenadier	*Macrourus* spp.	Argentina/UK		500				
Patagonian grenadier	*Macruronus magellanicus*	Argentina/UK		500				
Southern hake	*Merluccius australis*	Argentina/UK		500				
Argentinian hake	*Merluccius hubbsi*	Argentina/UK		500				
Southern blue whiting	*Micromesistius australis*	Argentina/UK		500				
Patagonian rock cod	*Notothenia* spp., *Patagonotothen* spp.	Argentina/UK		500				
Red cod	*Salilota australis*	Argentina/UK		500				

Angola FAO 47								
Red striped shrimp	*Aristeus varidens*	Angola						
Deepwater rose shrimp	*Parapenaeus longirostris*	Angola						
Penaeid shrimps	*Penaeus* spp.	Angola						

Black Sea FAO 37.4								
Sprat	Sprattus sprattus	Black Sea	G1		T	T	T	
Mediterranean horse macquerel	Trachurus mediterraneus	Black Sea	G1		T	T	T	
Anchovy	Engraulis encrasicolus	Black Sea	G1		T	T	T	
Turbot	Psetta maxima	Black Sea	G1		T	T	T	
Piked dogfish	Squalus acanthias	Black Sea	G1		T	T	T	
Horse mackerel	Trachurus trachurus	Black Sea	G1		T	T	T	

MoU species (ICES WGNEW)								
Sea bass	*Dicentrarchus labrax*	all areas						
Red gurnard	*Aspitrigla cuculus*	all areas						
Tub gurnard	*Trigla lucerna*	IV						
Grey gurnard	*Eutrigla gurnardus*	IIIa						
Grey gurnard	*Eutrigla gurnardus*	IV						
Grey gurnard	*Eutrigla gurnardus*	VIId,e						
Turbot	*Psetta maxima*	all areas						
Brill	*Scophthalmus rhombus*	all areas						
Dab	*Limanda limanda*	VIId,e						
Dab	*Limanda limanda*	VIIa,f-h						
Flounder	*Platichthys flesus*	IV						
Witch flounder	*Glyptocephalus cynoglossus*	IIIa						
John Dory	*Zeus faber*	all areas						

This has been added or changed
~~This should been deleted~~

(a) Age analysis for European eel (*Anguilla anguilla*) should be set at a minimum of 5 individuals per cm length interval. A minimum of 200 individuals should be analysed per management unit for yellow and silver eel separately.

Appendix 5: Transversal variables: sampling specification

Heading	Variable	Unit	Gear (Level 2 in the matrix)	Disaggregation Level [4]	Reference period
Capacity	Number of vessels			C3, B1	Annually
	GT, kW, Vessel Age [1]			C3	Annually
Effort	Days at sea (Days absent from port)	Days	All gears	B1, C3	Monthly
	Hours fished [2]	Hours	Dredges and Trawls	A1 [6]	Monthly
	Fishing days	Days	All gears	All cells [6]	Monthly
	kW * Fishing Days		Dredges and Trawls	All cells [6]	Monthly
	GT * Fishing days		Dredges and Trawls	All cells [6]	Monthly
	Number of trips [2]	Number	All gears	All cells [6]	Monthly
	Number of rigs [2]	Number	Multi rig (level 4)	A1 [6]	Monthly
	Number of fishing operations [2]	Number	Purse Seines	A1 [6]	Monthly
	Number of nets, Length [2]		Nets	A1 [6]	Monthly
	Number of hooks, Number of lines [2]	Number	Hook and Lines	A1 [6]	Monthly
	Numbers of pots, traps… [2]	Number	Traps	A1 [6]	Monthly
	Soaking time [2]	Hours	All Passive gears	A1 [6]	Monthly

Landings	Value of landings total and per commercial species [3]	Euro		B1, C1	Monthly
	Live Weight of landings total and per species	Tonnes		A1 [6]	Monthly
	Prices by commercial species [5]	Euro/kg		B2, C2	Monthly, Annually
	Conversion factor per specie				Annual update

Footnotes:

1) As defined in the Community Fleet Register

2) Some adjustments could be proposed by RCM and derogations could be obtained by STECF with respect to other appropriate regulations

3) If it is not possible to directly allocate landings from one trip into metiers, then this allocation should be based on rules agreed by STECF

4) The disaggregation levels refer to appendix 2.D (NB: the reference for métier or fishing activity is the level 6 of the appendix 2.B)

5) If possible, price data should be collected at the level A1 in order to calculate immediately the value of landings at this same level.

6) For some variables, the disaggregation level of A is enough because $\sum_i A_{ij} = B_i \ldots and \sum_j A_{ij} = C_j$ (example: Hours fished), for others, $\sum_i A_{ij} \neq B_i \ldots and \sum_j A_{ij} \neq C_j$ (for example Fishing days, where two or more métiers can be practised during the same fishing day and accounted more than once).

ANNEX II DECLARATIONS OF EXPERTS

Declarations of invited experts are published on the STECF web site on
https://stecf.jrc.ec.europa.eu/home together with the final report.

Abstract

The EC Data Collection Regulation (DCR) has been implemented since 2001 with the aim of harmonising the collection of fisheries biological and economic data across the Member States. Despite the recognised benefits brought about by the DCR, the scientific community and managers acknowledged that the current procedure of collecting biological data on a stock basis and economic data on a fleet basis did not favour the provision of relevant inputs to fishery-based management advice. The review of the DCR started in 2005 and was an opportunity to integrate the fishery-based approach in the future collection of bio-economic data.

The SGECA-SGRN 08-01 meeting was the final opportunity for independent experts to give scientific input to the fisheries fleet matrix, previously defined by the scientific community. The participants of the meeting were split into two sub-groups depending on the area of expertise. Transversal data (relevant for both Economists and Biologists i.e. effort, landings) where discussed in plenary. The experts were asked to address:

a) Review the fleet-fishing activity matrix at both EU and regional levels

b) Propose or update stratification for regional length vessel classes

c) Establish a regional design and regional protocols for the collection of biological and economic data in the view of the fleet based approach and SGRN recommendations. The proposal should include suggestions for the sampling strata, the sampling intensities and precision levels wherever possible, and for criteria for allocation of the fishing activity (dominance/exclusivity criteria)

d) Propose operational guidelines for the implementation of the new data collection framework (both for collection of biological and economic data).

The results of the meeting is planned to be incorporated in the draft of the new DCR and presented to the management committee at three occasions during the spring of 2008.

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