

JRC SCIENTIFIC AND POLICY REPORTS

Reports of the Scientific, Technical and Economic Committee for Fisheries (STECF)

EU MAP and template for National Work Plan (STECF-16-07)

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This report was reviewed by the STECF during its 51st plenary meeting held from 11 to 15 April 2016 in Brussels, Belgium.



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Abstract

Commission Decision of 25 February 2016 setting up a Scientific, Technical and Economic Committee for Fisheries, C(2016) 1084, OJ C 74, 26.2.2016, p. 4–10. The Commission may consult the group on any matter relating to marine and fisheries biology, fishing gear technology, fisheries economics, fisheries governance, ecosystem effects of fisheries, aquaculture or similar disciplines. This is the report of the EWG 16-01 meeting held in Hamburg, Germany, from 7 to 11 March 2016, to address the following Terms of Reference given by the Commission: critically assess a draft EU Multi-annual Programme (EU MAP) for Data Collection and to develop templates and formats for National Work Plans under the revised Data Collection Framework (DCF). The report from the EWG has been presented to the STECF Spring plenary for its reviewing and advice.

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SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF)

EU MAP and template for National Work Plan (STECF-16-07)

THIS REPORT WAS REVIEWED DURING THE PLENARY MEETING HELD IN Brussels, Belgium, 11-15 April 2016

Request to the STECF

STECF is requested to review the report of the STECF Expert Working Group meeting, evaluate the findings and make any appropriate comments and recommendations.

Observations of the STECF

STECF observes that, according to the terms of reference, the meeting of EWG 16-01 addressed two different tasks:

- 1. to provide expertise on outstanding issues of the future EU Multi-annual programme;
- 2. to provide expertise for the preparation of the National Work Plan template.

STECF observes that the meeting was organized with a very short notice and the tasks were rather complex to be addressed in only one meeting. However, STECF recognizes that the level of participation was high and covered all the required expertise with the exception of sustainability of aquaculture which, for this reason, was not assessed. EWG 16-01 referred to the DCF workshop on aquaculture (Gydnia, 2015) where the issue of sustainability of aquaculture was discussed.

STECF also observes that the legal set up for the future data collection framework is still not completely defined and this increased the time necessary to clarify and address the terms of reference. The revision of the Data Collection Framework (Council regulation (EC) No. 199/2008) is still under negotiation. Therefore, the discussions on EUMAP only reflect the principles reported in the version of the re-cast available at the moment of the meeting.

The future EU Multi-annual programme

Concerning the preparation of future EU MAP, the EWG 16-01 was required to critically assess if the basic principles of the DCF re-cast and the major recommendations by STECF have been taken into account in the draft EU MAP where deemed necessary.

STECF notes that the EWG worked on the draft "Commission Decision adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors", using the "track changes" mode for proposing amendments and provided explanations and comments on those changes in the report of the meeting.

STECF observes that the proposed version of EU MAP has been produced in compliance with the basic principles of the DCF re-cast and the previous STECF recommendations, as it contains several suggestions for including the regionalization approach and for establishing sampling plans according to statistical sound principles.

STECF notes that the EWG 16-01 amended the list of definitions by deleting the redundant ones, adding the missing ones and changing some of them. In particular, STECF observe that EWG suggested changing the definition of "fishing days" according to the conclusion of the DCF workshop on transversal variables (Cyprus, February 2016).

STECF observes that EWG suggested a roadmap for evaluation and updating the list of mandatory surveys. In line with proposals of previous STECF meetings, as well as RCMs in 2015, and not to disrupt current well-established surveys, the EWG agreed that the EU MAP shall contain a basic list of mandatory internationally coordinated surveys, however, this list shall be evaluated against updated eligibility criteria. Once this evaluation is completed, the list of mandatory surveys shall be updated.

STECF notes that EWG discussed the issue of thresholds and suggested to maintain the current provisions of the DCF because thresholds for national work plans should be considered as interim measures only prior to the development and implementation of regional sampling plans through which regionally coordinated sampling and task-sharing would accommodate data collection requirements.

Regarding economic data, STECF observes that EWG proposed to include the fleet segmentation in the EUMAP and suggests re-define the population for aquaculture and processing enterprises

STECF observes that the proposal of the EWG to collect data on annual investments for inactive vessels is questionable and should not be considered for inclusion in the EU MAP. The collection of such variable for the inactive vessels will imply the implementation of a specific survey and therefore it will require too much sampling effort compared to the information that will be gained.

STECF observes that EWG discussed the role of PGECON and the need to have a clear legal establishment of this group at the same level of Regional Coordination Groups. The task for PGECON is to advice on definitions, methodologies and best practices for the collection of economic and transversal data.

STECF notes that the EWG reviewed the tables to be included in the EUMAP. The revision is in line with previous STECF and RCM recommendations. However, STECF observes that Table 1D (List of species to be monitored because of species protection programmes in the EU or under international obligations) is not referred in the text of the EU MAP and it contains redundant information compared to previous tables which already include list of species to be monitored.

Preparation of the National Work Plan (NWP) template

Under the EMFF, the MS Operational Programmes must be supplemented by a work plan for data collection (Reg. 508/2014, Article 21), which will replace the National Programme. This work plan will be submitted by Member States to COM for the first time on 31st October 2016 in a specified format (Article 4(4) of Regulation (EC) No 199/2008). The content of the work plan must be consistent with Article 4(2) of that Regulation, referring to multi-annual sampling plans, schemes for at sea monitoring, surveys and data use. COM needs to provide Member States with a template for the work plan before the summer, to allow for sufficient time for preparation. In addition, there is a need to streamline existing reports on data collection, namely Operational Programmes and Annual Reports (ARs), and avoid duplication of information.

STECF observes that the EWG 16-01 was invited to critically assess the draft National Work Plan template and guidelines as proposed by COM and improve it where necessary. The aim was to develop a template that is streamlined with existing templates and in line with the emerging EU MAP, as well as end user needs.

STECF notes that to address this issue the EWG was provided by the European Commission with a draft "Commission Implementing Decision laying down rules on procedures, format and timetables for the submission of work plans for data collection". In addition, the EWG reviewed the work done by two experts contracted ad-hoc by the Commission prior to the meeting with the aim to prepare draft tables and explanatory notes on changes suggested regarding the NWP tables.

STECF observes that the focus of the exercise was on simplification, user-friendly formatting and standardisation. Guidance consideration has been given to make the NWP template more relevant for evaluation and statistical analysis, to simplify the tables, and where possible to look to the potential to automate table production with standard software and data formats.

STECF notes that the EWG 16-01 suggests keeping the table "National Organisation" and to include a clarification about national organisation and coordination of data collection in the new WP structure. The EWG suggests including a table "Data availability", where the name of the data sets and timing when the final data will be available are provided.

STECF notes that considerable changes are suggested in the WP templates for the sampling of fisheries, prompted by 1) the move to probability-based sampling methods and, 2) the introduction of regional sampling plans.

Regarding surveys, STECF notes that an additional table was suggested to include information on data dissemination and use in advice.

Regarding economic data, STECF notes that the EWG suggested to provide all necessary information about economic data collection in only one table for fishery, two tables for aquaculture and one table for fish processing. STECF notes that this suggestion fully addresses the aim of simplification.

STECF notes that substantial changes have been suggested for the section on activity data. The previous NP table "Transversal Variables Data collection strategy" was changed into the new table "Fishing Activity Variables Data collection strategy". The new table provides a link between economic and biological modules through the new included columns: Supra-region; Fleet

segment; Metiers (level 6). The data sources, either Control Regulation or complementary data collection, should be clearly stated for each variable group or variable in the case different sources should be used within a specific variable group.

STECF conclusions

STECF concludes that the EWG 16-01 fully addressed all Terms of Reference.

STECF endorses the proposed guidelines and standard tables prepared by EWG 16-01 for the EUMAP.

STECF agrees with the roadmap for evaluation and updating the list of mandatory surveys. According to this roadmap, a dedicated STECF EWG should be convened at the beginning of 2017 to evaluate all surveys according to predefined and updated criteria. This EWG will then propose the list of mandatory surveys to be included in EU MAP.

STECF concludes that the EU MAP will improve the general framework of the data collection in terms of data requirements and end user's needs. Even if one of the basic principles considered in the preparation of the future EU MAP is to keep homogeneity in time-series, STECF is aware that some of the proposed changes compared with the present DC MAP (EU Decision 93/2010) may have an impact on sampling activities as well as on final estimates. In these cases, an assessment of the proposed changes is needed. STECF considers that the implementation and functioning of the EU MAP need to be monitored at national and EU level to allow future adjustments if necessary.

STECF concludes that collection of investments for inactive vessels should not be included in the FUMAP.

As far as the template for NWP, STECF concludes that the preliminary work done by EWG 16-01 fully addresses the terms of reference. The proposed set of standard tables have been produced in compliance with the aim of simplification, as requested by the Commission, as they contain several suggestions for deletion of redundant information and guidance on definitions and on reporting requirements. In addition, the proposed set of standard tables has been drafted with the aim of standardisation (possibility to use standards for completion of both NWP and Annual Report) and automatically compilation.

STECF considers that NWP template text in Chapter 2, "data to be collected in accordance with the new multi-annual Union programme" should make reference to the EU MAP and not repeat the text.

STECF endorses the proposed guidelines and standard tables prepared by EWG 16-01 and recommends that their finalization will happen as soon as possible in order to provide Member States with new reporting formats and guidance to be applied for the forthcoming programming period (NWP 2017-2020 to be submitted by Member States by the end of October 2016).

EXPERT WORKING GROUP EWG-16-01 REPORT

REPORT TO THE STECF

EXPERT WORKING GROUP ON EU MAP and template for National Work Plan (EWG-16-01)

Hamburg, Germany, 7-11 March 2016

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

1 Introduction

The STECF EWG 16-01 meeting was held in Hamburg, Germany, from 7 to 11 March 2016, to critically assess a draft EU Multi-annual Programme (EU MAP) for Data Collection and to develop templates and formats for National Work Plans under the revised Data Collection Framework (DCF).

1.1 Terms of Reference for EWG-16-01

The aims of this EWG were the following:

- 1. To provide expertise on outstanding issues of the future EU Multi-annual programme
- 2. To provide expertise for the preparation of the National Work Plan template

Part I: Preparation of future EU MAP

Background

Following the agreement on the Basic Regulation on the Common Fisheries Policy (Reg. 1380/2013), which includes Article 25 laying out the key principles for Member States to collect biological, technical, environmental and socio-economic data, the Commission has prepared a proposal for a revision of the Data Collection Framework (Council regulation (EC) No. 199/2008), submitted in 2015. This will be followed by a Commission proposal for a revision of the EU Multiannual Programme for data collection. Discussions on the revision of the EU Multiannual Programme are ongoing and the key issues that need to be addressed have been identified and discussed to various extents in STECF expert working groups and other relevant fora. The latest forum where a draft EU MAP was presented was the Expert Group on Fisheries Data Collection, held on the 12th of February in Brussels.

Tasks for the EWG

The EWG 16-01 was invited to critically assess if the basic principles of the DCF re-cast and the major recommendations by STECF have been taken account of in the draft EU MAP and to suggest amendments, where deemed necessary. The EWG 16-01 was provided with documents produced during consultation with involved parties. The contents of the EU MAP must be put in conjunction with the different parts of the National Work Plans, as discussed at the EWG 14-17. In addition, the EWG was requested to give advice about what should not be in the future EU MAP but still must be put into the Work Plans or, for voluntary collection, elsewhere (e.g. Guidance document).

Part II: Preparation of National Work Plan Template

Background

Under the EMFF, the MS Operational Programmes must be supplemented by a work plan for data collection (Reg. 508/2014, Article 21), which will replace the National Programme. This work plan will be submitted by Member States to COM for the first time on 31st October 2016 in a specified format (Article 4(4) of Regulation (EC) No 199/2008). The content of the work plan must be consistent with Article 4(2) of that Regulation, referring to multi-annual sampling plans, schemes for at sea monitoring, surveys and data use. In case a WP is submitted, the Commission may approve it by implementing act (Article 21). COM needs to provide Member States with a template for the work plan before the summer, to allow for sufficient time for preparation. In addition, there is a need to streamline existing reports on data collection, namely Operational Programmes and Annual Reports, and avoid duplication of information. The future EU MAP should also be considered. The STECF EWG 14-17 (Hamburg, 20-24 October 2014) carried out preliminary work on the basic elements of National Work Plans, reviewed in the STECF Plenary (PLEN 14-03, Brussels, 10-14 November 2014). The basic principles of the template were presented in the Expert Group on Fisheries Data Collection, held on the 12th of February in Brussels.

Tasks for the EWG

The EWG 16-01 was invited to critically assess the draft National Work Plan template and guidelines as proposed by COM and improve it where necessary. The aim was to develop a template that is streamlined with existing templates and in line with the emerging EU MAP, as well as end user needs. Complementary documents were provided by experts, to further elaborate on the structure of the template, namely: description of possible links between the different tables of the template; an explanatory note justifying and explaining the inclusion/exclusion of tables in the Work plan template. The Commission provided experts with additional documents.

The focus of the exercise was on simplification, user-friendly formatting and standardisation. The EWG was asked to produce the draft guidelines and standard tables of the NWP to be assessed by the STECF plenary so then, any modification henceforth needed, can be dealt by in due time.

2 PART I: PREPARATION OF FUTURE EU MAP

The European Commission provided the EWG 16-01 with a draft EU Multi-annual Programme (EU MAP) for Data Collection, based on a document that was first presented at the 1st meeting of the newly established "Expert Group on Fisheries Data Collection" in Brussels, 12 February 2016, and revised after proposals for amendments by Member States until 19 February 2016. The EWG worked on the draft "Commission Decision adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors" (STECF EWG 16-01 Doc. 2), using the "track changes" mode for proposing amendments (see Annex 1), and provided explanations and comments on those changes in the following report sections.

In addition the EWG 16-01 was addressed by the European Commission through an explanatory note (STECF EWG 16-01 Doc. 3), laying out the legal background of the EU MAP and National Work Plans and listing a set of questions to the EWG with regard to the requested review of the provided documents and expert opinion on specific issues.

For the ToR on the EU MAP, the European Commission (Bas Drukker) gave a short presentation on the background and tasks for the EWG 16-01 with regard to the treatment of the documents provided and the expected outcomes.

The EWG set-up was to work in <u>sub-groups</u>, making the most efficient use of the expertise with regard to the ToRs:

- Sub-group 1: Biologists Fisheries and stock sampling, by-catches
- Sub-group 2: Biologists Recreational fisheries, eel & salmon (anadromous & catadromous species)
- Sub-group 3: Biologists Research surveys-at-sea
- Sub-group 4: Economists and biologists Fleet economics and transversal data, aquaculture and processing industry

The EWG 16-01 notes that the European Commission referred only to salmon and eel in the explanatory note. However, the draft EU MAP refers to 'anadromous and catadromous' species and then specifies eel, salmon and sea trout (but only in the Baltic area). The EC did not ask the EWG about sea trout, but the EWG consulted with Finnish experts on sea trout so that the EWG could also advise on sea trout in the Baltic region.

2.1 Biological sampling of fisheries and stocks

2.1.1 Introduction

Recitals: Concerning recommendations of STECF, the EWG 16-01 considers that the draft EU MAP does not fulfil those recommendations. For example, a recital reflecting the Commission Staff Working Document on the Commission Proposal for a revised DCF (SWD (2015)118 final, June 2015, section 5.1.1) should be included, as well as a recital reflecting the regionalisation approach.

In the view of the EWG 16-01, it is not apparent how the consultation that has taken place with the various RCMs, STECF, EWGs and other end-users has been used relating to variables covered by the draft EU MAP. The EWG also feels that reference to target levels within the draft EU MAP does not reflect the move towards probability-based sampling.

2.1.2 Chapter I - Definitions

All definitions already agreed and standardised within the text need to be aligned with a reference to the appropriate regulation or other source. Where this is not the case, the EU MAP should detail and define those additional items to ensure that specific aims of the legislation are met. Additional definitions have been added for consideration to promote understanding and consistency.

Consistency needs to be insured between the DCF recast and EU MAP in relation to research surveys. Currently the recast uses the term "research surveys", while EU MAP uses the term "research surveys at sea". It is proposed to change the wording in the DCF recast from "research surveys" to "research surveys at sea" to ensure consistency between the two legislation. [After the EWG, the addition of 'at-sea' was indeed included in the final draft of the recast DCF.] The DCF recast needs to have a definition of "research surveys at sea" included, this was originally in the EU MAP but is referred to in DCF:

"A voyage dedicated to the collection of data for scientific purposes, carried out by a vessel designated for this task." (STECF 13-12)

[The final draft of the recast DCF as published after the EWG doesn't contain a definition for research surveys at sea. Hence, the above proposed definition is to be included in EU MAP.]

The term "Index river" is new and requires a definition. The EWG 16-01 referred to that proposed by the ICES WKESDCF, but adjusted to apply to any anadromous and catadromous species, and noting that in some eel management units, the majority of eel production may be from lagoons, so the definition is extended to include these other environments where appropriate. The term Index River is well established in the management of salmon and sea trout, and therefore the EWG did not propose to change the term itself, but instead to extend the definition to include eel situations.

Definition of Fishing Platforms – the inclusion of fisheries in inland waters for anadromous and catadromous species, and for recreational sea angling, mean that fishing is no longer limited to registered vessels but now includes non-registered vessels, fixed installations and those fishers who stand in or near the water when fishing (including commercial and recreational fisheries). Therefore, the definition of a fishing platform should include non-registered vessels, fixed installations and 'on foot'.

2.1.3 Chapter II – Data requirements

Biological sampling

The text provided relates to metier-based sampling and is not appropriate for probability-based sampling. The proposal is to move towards probability-based sampling, and EWG 16-01 has provided updated text for consideration with this aim in mind.

The previous version of EU MAP (presented to the "Expert Group on Fisheries Data Collection", Brussels, Feb. 2016) contained a complicated section referring to various statistical requirements for sampling schemes. This was unsatisfactory, but instead of reformulating the discussion into

more meaningful text, it has been removed entirely. The EWG 16-01 has provided updated text for consideration in the "track changes" document (Annex 1).

The data collection requirements for anadromous and catadromous species are substantially different from those for marine species because the biological data requirements are different from those of marine fisheries, in terms of what is collected, the frequency of collection, and that they can be collected from fishery-dependent and fishery-independent sources (defined above). Therefore, rather than insert exclusions or caveats throughout the marine data collection texts, a separate section in the text is proposed for anadromous and catadromous species, and these species are removed from Table 1A because they are listed in Table 2.

Although the principle of investigating the effects on the ecosystem should be extended to include the effects of anadromous and catadromous fisheries on the freshwater ecosystem, this would be a major change to the EU MAP and it is difficult to define the parameters to investigate. Therefore, the EWG 16-01 does not propose to extend this ecosystem effects requirement to freshwater at this time. It is proposed to include recruitment surveys and surveys for standing stocks for anadromous and catadromous species as a bullet point in data requirements and remove them from chapter III, as they do not constitute research surveys at sea, should not be included in the cost sharing agreements and should not fall under the obligation of mandatory survey lists.

The paragraph in chapter III on adaptation of national work plans to regionally coordinated sampling design and effort is proposed to be moved to chapter II, as this applies to all data collection programmes and not just to research surveys at sea.

Full biological data collection is not required for recreational fisheries, but the composition of the catch must be reported. For information on recreational fisheries, see section 3.4.

Impacts on marine ecosystem

By-catch of non-target species: A sampling design optimised for the collection of fisheries data will not necessarily be optimal to provide adequate data to evaluate the impact of fisheries on any by-catch of protected, endangered or threatened species (PETS). The EWG 16-01 reiterates that the fact that the primary aim of the EU MAP relates to the sampling of ALL fisheries and although the EWG recognises the importance of collecting information relating to by-catch of non-target species, that this should not be at the expense of reducing the ability of MS to meet the core requirements of the legislation. The EWG 16-01 has provided updated text for consideration in the "track changes" document (Annex 1).

Deep-sea fisheries: Where RFMO data requirements exceed those of the DCF, they are detailed separately to, and in addition to, those that are detailed in the EU MAP. Any additional biological data requirements for deep-sea species should similarly be maintained separately to the EU MAP within the basic deep-sea regulation (currently Reg. 2347/2002).

Modification of Tables 1A -1D and 2

The EWG 16-01 reviewed and updated the new table proposals and amended as follows:

Table 1A. Basic list of stocks in sea basins in EU waters for which biological variables further specified in the EU-MAP guidance document (frequency, sample size, age, weight, sex, maturity, fecundity, geographic stratification [former appendix I and II]) shall be collected:

- References to salmon, Eel and sea trout were removed as they were included in (Table 2 List of anadromous and catadromous species for which biological variables shall be collected also for the freshwater part of their lifecycle)
- Stock identities were changed to the new agreed areas for horse mackerel and red gurnard. It is the opinion of EWG 16-01 that this table will require updating on a regular basis in line with stock assessment needs by end users.

Table 1B. List of Biological variables defined by stocks in sea basins of Outermost Regions of the Union:

 The sampling needs for French Guyana, Guadeloupe and Martinique, Reunion Island and Mayotte have been modified to reflect end-user requirements and maintain consistency with requirements detailed for RFMOs and SFPAs in Table 1C.

Table 1C. List of Biological variables defined by stocks in sea basins under RFMOs and SFPAs

- RFMO species lists were checked. It was the opinion of the EWG 16-01 that the table relating to FAO area 34 (CECAF) and coastal waters of FAO area 47 (Divisions 1.1 to 2.2) be split.
- A new table for FAO area 34 (CECAF) was produced using data from the RCM LDF 2015.
- No data was available to provide a comprehensive list for FAO area 47 (Divisions 1.1 to 2.2). The EWG 16-01 seeks clarification as to if a reference list for this area is required.
- Requirements relating to stocks covered by SPRFMO should be included under other RFMOs

Table 1D. List of species to be monitored because of species protection programmes in the EU or under international obligations (chapter II (1) (b) (i))

- This table appears to have been created from the modified *Appendix VII* and *Appendix VII* policy needs as provided to EWG 15-15.
- The proposed table as provided was not suitable for the intended purpose. The main problems with the fields being:
 - Species type some Crustaceans, Molluscs and Echinoderms were included within the section relating to Teleost fishes
 - Scientific name many were missing
 - Geographical area many were missing and those that were completed were confusing or did not match.
 - o International or EU obligation many were missing. The field also contained items such as "National management plans" with no reference to MS this relates to. The group was of the opinion that National plans are not relevant under the current field heading. Many species appeared more than once and it is not clear if this duplication relates to area covered or applied legislation.
 - The group proposes the headings to be changed as follows:

Common name Scientific name	Region / RFMO	Obligation type
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Table 2. List of anadromous and catadromous species for which biological variables shall be collected

• The area where the Stock is located is adjusted for eel to include all areas outside of Eel Management Units, and for sea trout to include the Baltic Sea itself in addition to the inland waters that exit into the Baltic Sea.

Modification of tables 3 and 4:

Table 3 [former Appendix IV] - Fishing activity (metier) by Region

The suggested amendments are the following:

The fishing metier excluded some fishing platforms for anadromous and catadromous species. Proposals are made for additional metier levels to account for these other platforms (glass eel fisheries, fixed installations (fences and weirs) and fishing 'on foot').

Table 4 – Species to be collected for recreational fisheries

The suggested amendments are the following:

The species column did not have "including in fresh water" for salmon, eels and sea trout in all appropriate areas, so this has been corrected. Salmon has been removed from the Mediterranean species cell because there are no salmon in the Mediterranean.

2.1.4 Chapter III – Research surveys at sea

The sequence is changed in agreements of work plans: The paragraph on agreement of survey contribution by country is moved above the paragraph on national work plans, as the regional agreements will inform/determine the national work plans. The contribution of Member States should not only be discussed but agreed at regional level, hence the wording was changed.

It is proposed to have surveys for anadromous and catadromous species moved from Chapter III to chapter II, see above for justification.

Modification of Table 12 List of research surveys at sea:

In line with recommendations of EWG 15-15 (STECF report 16-01), the most updated tables to be included in the EU MAP are the lists provided by the RCM Med&BS 2015 and outside this RCM region, the list compiled for EWG 13-05 (STECF report 13-12). Table 12 of the EU-MAP draft has been amended accordingly, also to align this list with RCM Med&BS 2015 proposal, as some surveys were included accidentally (*Bluefin Tuna Aerial Survey, Beam Trawl Survey in North Adriatic, Pelagic Juvenile Survey in the Black Sea* were not to be included). Table 12 should not include the maximum number of days, as the total effort and distribution of effort by member states should be agreed at RCG level. See Annex I for the updated tables.

Evaluation and updating the list of mandatory surveys

In line with proposals of e.g. STECF EWGs 13-05 and 15-15, as well as RCMs in 2015, and not to disrupt current well-established surveys, the EWG 16-01 agrees that the EU MAP shall contain a basic list of mandatory internationally coordinated surveys, however, this list shall be evaluated against updated eligibility criteria. Once this evaluation is completed, the list of mandatory surveys shall be updated. Also, this updated list shall form the basis for cost sharing between MS.

The evaluation of the surveys requires an independent review process based on predefined criteria in line with the criteria for the establishment of multi-annual Union programmes as

defined in the proposed DCF recast. The EWG 16-01 proposes the following roadmap for the evaluation procedure:

- April 2016: STECF to initiate the evaluation procedure
- End-users provide survey requirements based on data needs before September 2016 (ICES, GFCM, ICCAT)
- September 2016: All RCMs compile a list of surveys that shall be subject of the evaluation.
 This list encompasses the surveys currently included in the DCF as well as relevant
 international surveys contributing to the CFP goals. End-user input will be delivered
 through the RCMs.
- January 2017: Dedicated STECF EWG evaluating all surveys according to the predefined and updated¹ (prior to this EWG, e.g. through ad-hoc contract) evaluation criteria. This EWG will then propose the list of mandatory surveys to be included in EU MAP. This group is preferably chaired by an external non-EU expert and the report is reviewed by external experts prior to presentation to STECF. The composition of the group shall be based on survey expertise, end-user input and statistical expertise (survey optimisation).
- April 2017: STECF to approve this list and initiate the process to update EU MAP
- 2017: Commission to update EU MAP
- 2017: RCGs to set up and finalize cost-sharing procedures
- 2018: MS to adhere to the updated list and to share costs based on procedures agreed by RCGs

2.1.5 Chapter IV - Thresholds

For biological sampling of commercial catches, thresholds for national work plans should be considered as interim measures only prior to the development and implementation of regional sampling plans through which regionally coordinated sampling and task-sharing would accommodate data collection requirements. As the EWG 16-01 considers them to be interim measures, it sees no reason why the proposed thresholds should differ from those in Commission Decision 2010/93/EU, and the emphasis should be directed more towards the development and implementation of regional sampling plans. An additional threshold was included to cover stocks with low TAC to ensure sampling would be in place until RCGs had set up agreed regional sampling plans at the stock level.

In relation to cost sharing for surveys, the 3% should apply to the EU share of the TAC. Paragraph clarified to apply cost sharing model of 3% EU TAC to regions where TACs are established and 3% of EU landings in regions without TACs. Reference to methods for cost sharing in multispecies and ecosystem surveys has been removed, as these should be agreed at RCG level.

A separate section is proposed for anadromous and catadromous species, because the justifications for setting thresholds, or not, differ from those for marine fisheries.

The EWG 16-01 notes that the absence of a derogation/threshold for species with Recovery Plans in the old DCF was not present in the EU MAP. The EWG recommends that this is reinstated.

¹ Updated criteria based on STECF-SGRN 10-03, also taking into account the relevant criteria for the establishment of multi-annual Union programmes as specified in the new DCF.

For eels, the Eel Regulation (EC 1100/2007) constitutes an international Recovery Plan and therefore the EWG 16-01 considers that it may be that no thresholds can apply for eel, but this remains to be clarified. The Eel Regulation requires MS to report on the state of their eel stock in all eel management units, regardless of whether there are eel fisheries or not. Therefore, it would be inconsistent to apply a threshold in the EU MAP for collection of fishery-independent data.

If thresholds are to apply to eel for fishery-dependent data, the EWG 16-01 noted that the EWG 14-02 proposed "Where fisheries exploiting European eel exist in Eel Management Units, and the catch exceeds 25 t of silver eel equivalents per year (as defined by ICES), abundance and distribution data shall be collected at least once in every Eel Management Plan reporting period (presently 3 years) in order to estimate fishing mortality rate." which differs from the DCF recast (Article 5.1.c) that states that Multi-annual programmes (NWP) shall define "thresholds below which Member States do not need to collect datafor stocks without catch limits, on the basis of the relative share of a Member State in the total exploitation of the stock". The EWG 16-01 could not identify a scientific justification for selecting a threshold proportion of the catch, but if one is required, then suggests 0.1% as a starting point for further consideration.

No thresholds are proposed for salmon and sea trout, because the EWG 14-02 noted that all EU MS are required to report all Atlantic salmon catches to the North Atlantic Salmon Conservation Organisation (NASCO). The huge variation in stock sizes means that excluding small stocks would have a very uncertain and potentially misleading effect. However, not all biological data need to be collected annually – see EWG 14-02 report for guidance on spatial and temporal frequency of data collection.

2.1.6 RCG agreements

In order to gain legal security on RCG agreements, the EWG 16-01 proposes to include the following paragraph in the EU MAP:

"Member States should, were possible, reach agreements and make recommendations within the relevant Regional Coordination Groups (and PGECON). Where agreement cannot be reached, RCGs should inform the Commission of such a failure. The Commission may thereafter consult with the STECF on whether the recommendation merits inclusion in a revised legal instrument (e.g., Commission Decision) that obliges Member States to fulfil the particular activity."

2.2 Economic and transversal variables

2.2.1 Chapter I - Definitions

The EWG 16-01 suggests that the following definitions be <u>deleted</u>:

- Sampler/sampling staff: not used in the subsequent chapters of the EU MAP. Moreover, the current proposal of the revised DCF (Document 5417/2/16 Rev 2 of 8 March 2016) already includes the definition of "scientific observer"
- Soaking time: The EWG suggests the deletion of this variable from Table 5 (list of fishing activity variables). Soaking time has never been used by end-users and the information is not recorded in the logbooks. Therefore, there is no need to include this definition anymore.

The EWG 16-01 suggests the <u>inclusion</u> of the following definitions:

- Fleet segment: this concept is fundamental for the provision of economic data of the fleet. The proposed definition is the one approved by STECF EWG 13-05 (report STECF 13-12).
- Population of aquaculture enterprises: as suggested by the most recent DCF workshop on aquaculture (Gdynia, June 2015).
- Population of processing enterprises: as defined in the current EU MAP (Commission Decision 2010/93/EU).

The EWG 16-01 suggests to change the definition of "fishing days": The proposed definition is the one that resulted from the DCF workshop on transversal variables (Cyprus, February 2016). The justification is that the definition of a "fishing day" referring to passive gears cannot be followed in practice because the fishing time is currently not a mandatory field in logbooks, therefore the information on whether gears remain at sea or not is difficult to be collected.

The EWG also discussed the need to include the definition of "fishing trip". The definition is already reported in the Commission Implementing Regulation 404/2011 of the Control Regulation. However, the outcomes of the DCF workshop on transversal variables (Cyprus, February 2016) demonstrate that there are different interpretations of this variable and MS are adopting different approaches. Therefore, it would be beneficial if the EU MAP would contain a clear description on how this variable is derived.

The EWG 16-01 amended the definition of "population of vessels" according to EWGs 13-05 and 15-15.

The EWG 16-01 also discussed paragraph 2 ("Data collection methods shall be appropriate for the intended purposes defined in par. (1) and to inform end users of the quality of the data"). This sentence appears to be weak in terms of ensuring the application of internationally agreed methodologies and best practice. Previous STECF reports advised to include a reference to an EU MAP "Guidance Document". Considering that this proposal has not been included in the EU MAP, there is a need to inform MS to follow best practice and the methodological improvements of the last years (see for instance the work done within the PGECON on harmonization of methodologies and calculation of quality indicators or the work carried out by the DCF workshops on transversal data).

2.2.2 Chapter II – Data requirements

Point 3, activity data

Present text

3. Detailed data on the activity of Union fishing vessels in Union waters and outside Union waters as reported under Regulation 1224/2009 must be made available to end-users as a supplement to biological and economic data. Variables to be made available are listed in Table 5 [former Appendix VIII]. Estimates shall be made based on representative samples where data are not to be collected under Regulation 1224/2009 as regards certain segments of the fleet, certain geographical areas or quantities of fish landed below a certain threshold, or where geographical areas are insufficiently These covered. sampling programmes should allow for the estimation of such parameters at the lowest relevant geographic level.

Amended text

3. Data to assess the activity of Union fishing vessels in Union waters and outside Union waters consist of the variables as indicted in Table 5 [former Appendix VIII]. Primary data as reported under Regulation 1224/2009 are to be made available to the National Institutions implementing the Working Plans. When data are not to be collected under Regulation 1224/2009 or when data collected under Regulation 1224/2009 are not appropriate for scientific use, they can be collected using alternative statistical methods. These statistical methods should allow for the estimation of variables listed in Table 5 at the lowest relevant geographic level by fleet segment (table 6a) and metier level 6 (table 3)

The amendment is justified by the following considerations:

- The section on activity data starts with a description of which data should be made available to end users. This is not appropriate because this section should list the sets of data to be collected. In addition, all types of detailed data have to be made available to users of scientific data (as defined in the EU MAP);
- There is a need to clearly state the obligation for Member States to allow the use of primary control data for the purpose of data collection;
- The list of cases where additional sampling could eventually be necessary is not exhaustive and it does not consider STECF advice. Therefore, the EWG 16-01 suggests to revise the text considering the issue of data that are not collected under the Control Regulation and the issue of low quality for scientific purposes. The EWG 16-01 recalls the EWG 15-15 statement: as described in the STECF report 13-12 (EWG 13-05), consideration shall be given to the data quality collected under the Control Regulation. If the data is not considered to be appropriate, the EU MAP shall facilitate the data collection up to the required level.

Point 4, Social and economic data of the fleet

Present text	Amended text
enable the assessment of the	enable the assessment of the social and economic performance of
social and economic performance of the Union fisheries sector. They consist of:	a) Economic variables as indicated in Table 6 [former Appendix VI]. according to the sector segmentation of Table 6a [former Appendix III] and according to the supraregions as defined in table 6b

- a) Economic variables as indicated in Table 6 [former Appendix VI].
- b) Social variables as indicated in Table 7.

[former Appendix II]. The population is all vessels in the EU Fishing Fleet Register on December 31st and any active vessel fishing at least one day during the year. In addition, capital value, capital cost, investments and subsidies on investment have to be collected for inactive vessels. In cases where a fleet segment has less than 10 vessels, clustering may be necessary in order to design the sampling plan and to report economic variables. Economic data shall be collected on a annual basis.

b) Social variables as indicated in Table 7. Social data shall be collected every three years.

Detailed definitions and specification of methodologies may be compiled by the European coordination groups (PGECON?) in cooperation with end users and taking account of STECF reccomendations..

The amendment is justified by the following considerations:

- The population of vessels should be indicated as it informs MS that all the vessels in the fleet register should be covered; the definition is the one agreed by EWGs 13-05 and 15-15.
- There is a need to clearly state that economic data have to be provided on an annual basis.
- The fleet segmentation is necessary to guarantee the consistency in time series and to define the minum level for the definition of the sampling scheme and for the provision of data (see also STECF EWGs 13-05 and 15-15).
- Economic data have to be provided by supra-region (see also STECF EWGs 13-05 and 15-15).
- The possibility to cluster segments should be given in the EU MAP because it provides guidance on how to proceed when collecting and/or reporting might breach the confidentiality assurance and/or the statistical representativeness of a certain fleet segment due to a small amount of observations might be of concern.

The EWG 16-01 expressed some concerns regarding the calculation of investments for the inactive vessels and therefore considered it useful if STECF could eventually reconsider this provision.

Point 5, aquaculture

Present text	Amended text
5. Social and-economic data and sustainability data on aquaculture to enable the assessment of the social and-economic performance and the sustainability of the Union aquaculture sector, including its environmental impact. They consist of:	5. Social and economic data and sustainability data on aquaculture shall be collected to enable the assessment of the social and-economic performance and the sustainability of the Union aquaculture sector, including its environmental impact. They consist of:
a) Economic variables as indicated in Table 8 [Appendix X] according to the sector	a) Economic variables as indicated in Table 8 [Appendix X] according to the sector segmentation of Table 9 [former Appendix XI].

segmentation of Table 9 [former Appendix XI].

- b) Social variables as indicated in Table 7.
- c) Sustainability data on aquaculture as indicated in Table 10.

The population is all enterprises whose primary activity is defined according to the Eurostat NACE codes 03.21 and 03.22 and who operate for profit. Economic data shall be collected on annual basis.

- b) Social variables as indicated in Table 7. Social data shall be collected every three years
- c) Sustainability data on aquaculture as indicated in Table 10

Detailed definitions and specification of methodologies may be compiled by the European coordination groups (?PGECON?) in cooperation with end users and taking account of STECF reccomendations.

Detailed information on implementation of aquaculture data collection shall be provided in work plans, taking into account data requirements specified in Reg. xx (RECAST)

The amendment is justified by the following considerations:

- Information on data collection timeframe should be provided in the EU MAP to ensure clarification and was respectively added to each type of variables except sustainability indicators.
- Applicable thresholds considering the use of simplified methodology for aquaculture data collection is provided in Chapter IV.
- The EWG was asked to review environmental indicators in Table 9 (medicines and mortalities). However, this issue has to be addressed to an appropriate group of experts. Extensive information on this issue is provided in the reports from the Workshop on Aquaculture Data Collection (Gdynia, June 2015), from JRC on aquaculture and from the ICES Working Group on Aquaculture (WGAQUA).

The EWG 16-01 also considered that the version of draft revised DCF as provided during the meeting amended the previous one regarding the obligation to collect socio-economic data and sustainability data for aquaculture. The EWG concluded that data requirements specified in the revised DCF should be considered by MS when drafting the work plan, but the content of the EU MAP should include data requirements disregarding if these data are mandatory or not.

Point 6, processing

Present text	Amended text	
6. Social and economic data are needed to enable the assessment of the social and -economic performance of the Union fisheries processing sector. They consist of:	assessment of the social and -economic performance of the Union fisheries processing	
a) Economic variables as indicated in Table 11 [former Appendix XII]	sector. They consist of: a) Economic variables as indicated in Table	
b) Social variables as indicated in Table 7	11 [former Appendix XII]according to the segmentation specified within relevant European	

expert groups (?PGECON?). The population is all enterprises whose main activity is defined according to the EUROSTAT definition under NACE Code 10.20.

Economic variables for main activity enterprises shall be collected on annual basis. Number of enterprises and turnover for non main activity enterprises shall be collected biennially.

Work plans shall clearly identify the variables and the part of the population covered through Regulation (EC) No 295/2008 concerning structural business statistics and the variables and the part of the population that have to be covered through additional data collection methods.

b) Social variables as indicated in Table 7. Social data shall be collected every three years.

Detailed definitions and specification of methodologies may be compiled by the European coordination groups (?PGECON?) in cooperation with end users and taking account of STECF reccomendations.

The amendment is justified by the following considerations:

- Information on segmentation is necessary to define the minimum level for the definition of the sampling scheme. Considering that any segmentation is reported at the moment in the EU MAP, the EWG suggests not to prescribe any segmentation in the new EU MAP but to clearly state that this segmentation will be provided by PGECON.
- As was stated by EWG 15-15, the method of data collection should not be specified in the EU MAP, it has to describe the requirement and content of relevant data. Therefore, Table 11 should be kept with the entire list of variables, necessary to achieve the objectives set out in Article 25 of Regulation (EU) No 1380/2013.
- Data collection for economic and social variables of enterprises with non-main activity of fish processing should be limited only to the number of enterprises and turnover indicator and performed biennially, as in the current EU MAP.
- With regard to existing overlaps of economic variables between the legal frameworks of the DCF and SBS, MS should provide a comprehensive description of the data collection scheme in their Work Plans concerning variables defined in Table 11, with the aim to avoid duplication of data collection. The main differences between DCF and SBS data are reported in the STECF report 13-31 (EWG 13-15) and in the study on "Scientific data storage and transmission under the future Data Collection Framework Feasibility Study" released in Sep. 2014, Annex 1.1 "Comparison of legal requirements under the DCF and Statistical regulation concerning submission of data on aquaculture and fish processing".
- Raw material: The EWG 16-01 notes that the processing industry is already obliged to
 provide the origin and species of fish raw materials [as well as fishing gear and combined
 nomenclature] on their products under Regulation (EU) 1379/2013 on the Common
 Organisation of the Markets (CMO). However, it is not clear whether these data are
 available in a form suitable for data collection. Based on this, and notwithstanding the pilot
 studies at MS level, the table for fish processing has been amended to recover the variable

of weight of raw material per species and origin as optional, in the terms of the mentioned regulation, as was already pointed out in the STECF report 13-12 (EWG 13-05). The EWG 16-01 commented that data on the origin of raw materials is key to establish the connection between the fleet and the processing industry. The end users have already shown their interest on the DCF processing sector data if it would be linked to the fleets. The data on the origin of the raw material, as requested by the CMO, would contribute to analysing the importance of key stocks (economically), as for example tuna from the Atlantic, Mediterranean or Pacific; highlight the impact of the landings of EU fleets on EU regional economies or contribute to the knowledge of the sustainability of the processing sector.

2.2.3 Chapter IV – Thresholds

Present text	Amended text
10. With regard to social and economic aquaculture data, Member States may define a simplified methodology in their work plan if the total aquaculture production volume and value, as reported in the Member States' latest submission under Regulation (EC) No 762/2008, are both less than 1% of the total EU aquaculture production volume and value. The EU aquaculture production volume and value shall be the most recent data published by Eurostat. In this case, no socioeconomic aquaculture data need to be provided on the production of species which account for less than 10% of the Member State's aquaculture production by both volume and value, as reported in the Member States' latest submission under Regulation (EC) No 762/2008. Alternative methods may also be developped for enterprises whose activities are not mainly aquaculture	10. With regard to social and economic aquaculture data, Member States may define a simplified methodology in their work plan if the total aquaculture production volume and value, as reported in the Member States' latest submission under Regulation (EC) No 762/2008, are both less than 1% of the total EU aquaculture production volume and value. Alternative methods may also be developped for enterprises whose activities are not mainly aquaculture

social and economic ber States may define a in their work plan if the tion volume and value, as States' latest submission o 762/2008, are both less U aquaculture production native methods may also

Justification:

The EWG 16-01 agrees with the general approach used to define this threshold. The EWG is also aware that the present draft of the revised DCF does not consider the collection of socio-economic data for the aquaculture as mandatory. However, the EWG considers to maintain this threshold, but suggests to delete the explanation of the meaning of the simplified methodology that should be applied by MS in case the threshold is applied. This is not clear in the present text and it is much more related to methodological issues that could be addressed by PGECON.

2.2.4 Modification of tables related to transversal and economic data

Table 5 [former Appendix VIII] - List of fishing activity variables

The suggested amendments are the following:

- Remove "number of vessels" under the section on effort. This variable is already listed in the section on capacity.
- Delete "number of rigs" and "soaking time". These variables, although requested in the DG MARE/STECF data call for the Annual Economic Report, had never been used. The removal of such variables has been recommended by the DCF workshop on transversal variables (Cyprus, February 2016), since these are variables not consistently collected through the logbooks and Control Regulation.
- The variable "hours fished" is to be considered as optional because this information is optional in the Control Regulation and therefore it could be difficult to be estimated. This is coherent with what was suggested by the DCF workshop on transversal data (Cyprus, Feb. 2016).
- Add a footnote specifying the minimum level of disaggregation.
- For the variables (i) Number of nets/Length, (ii) Number of hooks/Number of lines, (iii) Numbers of pots/traps, the EWG 16-01 suggests to include a footnote to state that the need of these additional variables has to be decided regionally, as these decisions require a regional approach associated with core end-user needs.
- Delete the variable "conversion factors", according to EWG 15-15.
- Changes are required to ensure that variables are appropriate for anadromous and catadromous species, and that exceptions are possible for those variables that are not relevant to anadromous and catadromous species, but these changes have not been made.

Table 6 [former Appendix VI] - List of Economic variables for the fleet

The suggested amendments are the following:

- Delete "fuel subsidies" and "financial results" as recommended by EWG 15-15.
- Delete footnotes because the related information is reported in the text and because the reference to the guidance document is no more valid.

The EWG 16-01 suggests to include two additional tables that are referred to in the text:

- **Table 6a Fleet segmentation by Region**. The content of this table is the one proposed by STECF EWG 15-15 with the inclusion of the vessel length categories;
- **Table 6b Geographical stratification by Region**. The content of this table is the one proposed by STECF EWGs 14-18 and 15-15.

A fleet segment can be further divided when there is a need to differentiate an existing segment to distinguish fleets operating in the outermost regions or exclusively outside Union waters (see STECF EWGs 15-15 and 14-18) or to distinguish low activity level vessels as suggested by the Workshop on Thresholds (The Hague, Oct. 2014).

Table 7 - Social variables on the fleet, aquaculture and processing factors

Changes are required to ensure that variables are appropriate for anadromous and catadromous species, and that exceptions are possible for those variables that are not relevant to anadromous and catadromous species, but these changes have not been made.

Table 8 [former Appendix X] - Economic variables for the aquaculture sector

The suggested amendments are the following:

- "Gross value of sales per species" to replace "Gross transactions return" which was left in the table notwithstanding with STECF EWG 15-15 recommendation to use a proper naming for income variable.
- To avoid duplication, the economic variable "Number of persons employed" was replaced with "Number of employees" considering that former variable defines also unpaid labour which is separately presented in Table 8.
- Changes may be required to ensure that variables are appropriate for anadromous and catadromous species, and that exceptions are possible for those variables that are not relevant to anadromous and catadromous species, but these changes have not been made.

Table 10 [former Appendix XI] - Segmentation to be applied for the collection of aquaculture data

The suggested amendments are the following:

- The aquaculture method "cages" was missing disregarding the STECF EWG 15-15 recommendation that proposed to include this variable and was not in line with methods, defined in Regulation 762/2008.
- Variable "Eggs for human consumption" was replaced according to the STECF EWG 15-15 recommendation and moved to the section defining species/product.
- "Polyculture" in the section defining species was renamed to "multispecies" due to the duplication of definition from the method section.
- Variables from the species section were re-arranged according to the similarity of species.

Table 11 [former Appendix XII] - List of economic and social variables for the processing industry sector

As was stated in EWG 15-15, the method of data collection should not be specified in the EU MAP, it has to describe the requirement and content of relevant data. Therefore, Table 11 should be kept with the entire list of variables, necessary to achieve the objectives set out in Article 25 of Regulation (EU) No 1380/2013. The title of the table has been changed accordingly.

The variable "weight of raw materials" is included in the table as optional according to STECF EWG 13-05.

3 PART II: PREPARATION OF NATIONAL WORK PLAN TEMPLATE

For this ToR, the EWG 16-01 was provided by the European Commission with a draft "Commission Implementing Decision laying down rules on procedures, format and timetables for the submission of work plans for data collection" (STECF EWG 16-01 Doc. 4), explanatory notes on the legal background and questions addressed to the EWG (STECF EWG 16-01 Doc. 3) and the outcome of two ad-hoc contracts, preparing draft tables and explanatory notes on changes suggested regarding the WP tables (STECF EWG 16-01 Doc. 5 on economic data; STECF EWG 16-01 Doc. 6 on biological data).

These documents were presented to the EWG 16-01 at the beginning of the work on this ToR by the European Commission (Venetia Kostopoulou) and the two ad-hoc experts (Irina Davidjuka, Paolo Carpentieri).

The prepared documents and the information from the presentations formed the basis for the work in the EWG 16-01 sub-groups, following the same allocation of expertise as done for ToR Part I (EU-MAP, see beginning of section 2).

The task for the EWG 16-01 was to critically assess the draft National Work Plan template and guidelines as proposed by the COM (STECF EWG 16-01 Doc. 4) and improve it where necessary. The aim was to develop a template and simplify structure that is streamlined with existing templates and in line with the new EU MAP, as well as end user needs.

The EWG faced the difficulty to work with preliminary versions of the documents (DCF re-cast, EU MAP draft) guiding the work on the templates for National Work Plans. Those documents are currently under revision on various levels. During the meeting, a new version of the revised DCF, used for discussions on the Council level, was provided to the EWG. Furthermore, it was not clear for the EWG from the beginning, what the legal structure of Work Plans is and how this relates to the other legislative acts for the revised DCF. The Commission clarified questions of the EWG on the set-up and relationships of the various legal acts during the first day the EWG was dealing with this ToR.

Due to time constraints, the EWG 16-01 was asked by the Commission to focus on the WP tables and some basic ideas and instructions for MS to follow when completing the tables and describing their planned work in the WP text. The amendments proposed by the EWG are included in the "track changes" version of the WP template document (Annex 2).

In general, while doing justice to the vast amount of work planned in the workplans, the text should aim for condensed text addressing the planned work without being extensively descriptive. Also, to facilitate and ease the evaluation procedures, guidance should be given to the content of the text in different paragraphs. To accommodate this, text boxes with a fixed number of words can be used to constrain the authors to the format and condense the text. Examples for these textboxes are included in section 3.5.

3.1 General sections

The EWG 16-01 suggests keeping the table "National Organisation" and to include a clarification about national organisation and coordination of data collection in the new WP structure. The information about responsibilities and contact persons could be useful for the MS' internal management.

The EWG suggests including a table "Data availability", where the name of the data sets and timing when the final data will be available are provided.

The main issues and changes for the new WP modules are included in the following table:

Table Modules NP/WP	Comments	Status
Table National Organisation	 The column "WP module" is included Information in columns: Acronym, Postal Address, email, Telephone could be optional. 	Should be kept for WP templates
Table 20. Data availability	- "WP date of submission" could be automated.	New table should be included in WP templates
Table 23. Bi- and multilateral agreements	No comments	Should be kept for WP templates
Table 21. Planned and achieved regional and international co-ordination	Information about international coordination meetings and workshops could be pre-filled by the Commission. MS should mark only relevant meetings in the column "MS Participation".	Should be kept for WP templates
Table 22. Follow-up of recommendations and agreements	No comments	Should be kept for WP templates

3.2 Sampling of marine fisheries

Considerable changes are envisaged in the WP templates for the sampling of fisheries, prompted by 1) the move to probability-based sampling methods and, 2) the introduction of regional sampling plans. As with the other WP sections, guidance consideration has been given to make the NP template more relevant for evaluation and statistical analysis, to simplify the tables, and where possible to look to the potential to automate table production with standard software and data formats.

Two new tables (Tables 1 and 2) will detail the size and activity of the national fleets and the characteristics of the landings into Member States, the number, tonnages and number of locations. These tables substitute the former "Table III.A.1-General description of the fishing sector" which described the fisheries in a very basic way. The new tables show a more complete description of fisheries sector (gears, targeted species, number of vessels, effort, landed tonnage) and they are a means of quantifying the populations for which sampling plans pertain. They are also a means of assessing the coverage of the sampling set out in the WPs.

Table 6 is the new sampling plan description that has been adapted to reflect the new stratified sampling schemes envisaged with regional designs and probability-based sampling. Each Member State will detail all the sampling schemes which it will be operating (some of which may be regional, some national). For each scheme, all strata will be listed, the primary sampling unit (PSU) defined, and an estimate of the total number of PSUs available over the year given. Set against this will be the planned number of PSUs the Member State is intending to undertake. The

PSU will in most cases be trips on vessels for at-sea schemes and visits to ports, markets or processors on specific days, for on-shore schemes. Assessment of the Annual Report will, in part, be based on a comparison of the planned and achieved number of PSUs undertaken.

Table 7 is a sampling frame description table that provides more details on the strata and sampling frame of each scheme. This table links with Table 6 (having the same number of rows and a unique strata ID number), and with a new table relating to the quality assurance framework.

The sampling plan table and the sampling frame description will be linked (having the same number of rows and a unique strata ID number), to a table that details the achieved sampling (Table 8), which will provide a further breakdown of numbers or primary and lower sampling units, such as vessel locations, individual fish etc.

Table 9 is a table to be used only for the Annual Report. It would relate to the sampling schemes and strata, and list by "domain" (e.g. species/stock and metier) the number of achieved samples.

Table 10 is a table to be used only for the Annual Report and delivers information on the recording of incidental catch of vulnerable species such as marine mammals, seabirds and reptiles.

3.2.1 Modification of tables related to sampling of marine fisheries

The main issues and changes for the WP modules are included in the following table:

Table Modules NP/WP	Comments	Status
Table 1. Description of the flag fleets	 This is a new table that, for each Member State, quantifies the size and activity of the national flag fleets, broken down by segments. 	New table for WP
	 It records the number of vessels in the fleet, the number of trips made, and the landed tonnages at home ports and abroad. 	
	 The reference years would be used to plan the sampling, the same columns would record the actual activity in of the fleet components for the year of the Annual Report. 	
Table 2. Description of the landing locations	 This is a new table detailing the landed tonnages and landing locations for the Member State. 	New table for WP
	 It details the number of landing locations, the number of registered landings, the landed tonnages, and the proportion from own-flag and foreign-flag vessels. 	
	 The reference years would be used to identify trends in individual species landings at a national and regional level to ensure coverage of any species-specific sampling needs not previously covered by MS work plans at the 	

	national and regional level where the species composition of the landings change.	
Table 6. Sampling Plan Description	 A table to detail by schemes and strata, the potentially available primary sampling units (PSU), and the planned number to be undertaken. 	Considerable changes
Table 7. Sampling frame description	 A table detailing all the schemes and strata of the national programme, linking to the planned sampling and the QAF tables 	Considerable changes
Table 8. Achieved sampling (only for the AR)	 A table providing for all schemes and strata a more quantified breakdown of the achieved numbers of lower sampling units. 	Considerable changes
Table 9. Achieved length sampling of catches, landings and discards by species (only for the AR)	 This table is related to the sampling schemes and strata (by ID number), and it lists the number of achieved samples by "domain" (e.g. species/stock and metier) 	Minor changes
Table 10. Incidental catch of vulnerable species (marine mammals, seabirds, reptiles, etc.) (only for the AR)	- Table detailing the recording of incidental catch	New table for AR

Table 3. List of required stocks

The collection of data (and subsequent data reporting) should always be done at level of area/stock (i.e. ICES rectangles, GSA etc.), as the management/assessment is done at this level.

A column with the reference years has been added. It is assumed that three preceding years shall serve as a reference period (i.e. 2013-2015 for sampling planned in 2017).

In the column "Area/Stock", MS should list all stocks fished by vessels under its flag that are subject to assessment and/or management in the respective EU Region.

Instead of using colours (grey and white), a column specifying if the species (i.e. stock) has been selected for sampling, has been added.

The average landing in the references years, the share (%) in the EU TAC (where applicable) or the share (%) in EU landings (calculated at regional level) for MS should be given in the relevant

columns. Clarification is needed on how to obtain data on all EU landings at regional level for particular stock (where to get reliable/final data from?).

The second last column should only be added for the Annual Report and should contain the total landings of that species (stock) during the sampling year.

Table 4. Long-term planning of sampling for biological variables

This table is used to indicate the long-term plans for sampling various biological variables in the WP and shall serve as a reference table for cross-checking if data collected in the sampling year is in line with the long-term plan in the Annual Report.

The collection of data should always be planned at the level of area/stock (i.e. ICES rectangles, GSA etc.).

Table 5. Sampling intensity for biological variables

This table shall only be used in Annual Report (not in the WP).

The number of achieved individuals should be requested for each variable (length, sex, weight, age, maturity and fecundity) at the level of species and area/stock and should coincide with the long-term planning in Table 4 In this way, these two tables could be cross-checked.

The main issues and changes for the WP modules are included in the following table:

Table Modules NP/WP	Comments	Status
Table 3. List of required stocks	-	Minor changes
Table 4. Long-term planning of sampling for biological variables	- Details the recording of biological parameters	Minor changes (?)
Table 5. Sampling intensity of biological variables	-	No changes (?)

These tables have been retained from the previous WP template, however, it should be noted that the requirements for the collection of biological variables should be related to end-user needs.

3.3 Sampling of anadromous and catadromous species

Two new tables are suggested by the EWG 16-01 to address reporting needs for anadromous and catadromous species (Tables 12a and 12b). Column Unit: fill the unit (e.g. number of samples, sites, etc.) chosen by MS.

3.4 Recreational fisheries

Recreational fisheries are defined in the context of the EU MAP as non-commercial fishing activities exploiting living aquatic resources. Recreational fisheries can have significant impact on stocks (e.g. seabass, Baltic cod), but traditionally have been excluded from stock assessments, which may impact on the ability to sustainably manage stocks at MSY. The main drivers for the collection of recreational fishery data are: providing advice on fishing opportunities, designing and evaluating management measures for recreational fisheries, developing fishery management plans and strategies, and supporting the development of marine spatial planning (ICES Advice, 21 August 2015). The first three of these are the focus for the proposed data collection under the EU MAP as they relate to the CFP. This section covers recreational sea fishing, as the proposal for recreational data collection for diadromous species is defined in Section 3.3.

The collection of data on recreational fishing can be challenging as fishers use different methods (e.g. angling, nets, pots, traps, spears), fish from different platforms (e.g. shore, boats), often patchily distributed both in space and time, and can fish in remote areas. In many countries, there is no licencing of recreational sea fishing, so the is no list frame for surveys. To collect data on recreational fisheries for use in stock assessment, estimates are needed over time of effort (e.g. numbers of fishers, boats, trips, locations), catch per unit effort (CPUE) from a representative sample (e.g. fishers, boats, trips, sites), and information on the composition of the catch (e.g. weights, lengths) for both the kept and released component of the catch. Releases are particularly important as they can make up a very high proportion of the total catch (Ferter et al. 2013) and there is little information post-release mortality of many species in Europe with the exception of cod (Ferter et al. 2015a, 2015b, 2015c, Weltersbach 2013). Good survey design is very important in achieving robust estimates of recreational catches, as many biases can easily be incorporated (e.g. avidity, recall, coverage, non-response, rounding). Despite the challenges, there is significant expertise within the ICES Working Group on Recreational Fisheries Surveys (WGRFS) that can provide: advice on survey design; descriptions of how to design surveys; and a Quality Assessment Tool (QAT) to assess the robustness of the recreational fishing surveys (see ICES 2010, 2011, 2012, 2013, 2014, 2015). Despite the DCF requirements to collect data on recreational fisheries, data are still sparse and of variable quality across Europe, so little is known about the overall impact of recreational fisheries with a few notable exceptions (e.g. Baltic cod).

The requirements for the collection of recreational fisheries under the EU MAP relate to the data needed to deliver the CFP. Two additional constraints were added by the European Commission for recreational fisheries: 1. a list of species must be defined; and 2. a threshold must be included below which no data would be collected. Whilst the EWG 16-01 felt that the species should be defined regionally based on end-user requirements and that a threshold could not be justified scientifically, the constraints were accepted and EWG suggestions delivered on this basis. The existing requirements under the DCF (Council Regulation (EC) No. 199/2008) require recreational catch estimates of Atlantic salmon, European eel, European seabass, Atlantic cod, sharks, and Atlantic Bluefin tuna on a quarterly basis. On top of this, the EU Control Regulation (Council Regulation (EC) No. 1224/2009) also requires the reporting of recreational catches of depleted stocks that are subject to EU recovery plans. The rationale behind the definition of the data requirements for recreational fisheries under the EU MAP in the context of DCF requirements and EC constraints is described in detail below, but without prejudice to provisions on sampling of recreational fisheries set out in the Control Regulation.

The EWG suggests including pilot and annual surveys, and reporting both catches and releases and catch composition. Whilst minimum sets of species and thresholds are defined, the final data requirements should be defined regionally based on the outcomes of pilot studies and management need. The minimum data collection requirements are as follows:

- Multispecies pilot studies of recreational fisheries catch and releases conducted regularly (every 5 years) including assessed stocks, protected species, and other relevant species defined regionally.
- Annual surveys of volume (number, weight and composition) of catches and releases of recreational fisheries for a minimum set of species (see below) or identified by pilot studies and management need.

Pilot studies have been included to identify the impact of recreational fishing on overall stocks. For many species, no data exist or, where data exist, are not compiled at a European level, so the impact of recreational fishing is not known. The pilot studies are designed to deliver data that will assess the impact across a broad range of relevant species and identify key additional species where data should be collected on an annual basis. Pilot studies need to be repeated regularly as recreational catches can change markedly in short periods due to declining stocks or increasing recreational fishing, and recreational impacts may become more or less important. A 5-year period has been suggested based on the fact that Baltic cod catches can change markedly over a short timescale especially if local abundance increases.

Time series of recreational fishing data is needed for use in stock assessment. Hence, annual surveys for specific species have been defined, but with the potential to add more species based on regional management need. These surveys need to report not just total weight of catches and releases, but must include some information on composition of the catch (length or weight frequencies). The composition is likely to be very different to commercial catch composition and recreational catches cannot be included in stock assessment without this. However, full biological data collection is not needed for recreational fisheries as many biological parameters are likely to be the same so commercial data can be used (e.g. age-length keys, length-weight relationships).

Key assessed species where recreational fisheries are known to have an impact were defined as a minimum list for recreational data collection. There is the option to include more species based on local management need, but this would be done on a case-by-case basis at a regional level. The original list was defined based on the DCF and discussions within DG MARE. Changes to the lists were made relating to abundance and relevant to management need (e.g. stock that have assessments). The definition of sharks in the DCF has been changed to elasmobranchs to reflect the correct terminology and clarification from the EC on the meaning on sharks under the DCF. At present, there are still questions about whether a number of species should be in the list including: Baltic flounder (minimal impact), Baltic elasmobranchs (not present), Mediterranean seabass (minimal impact) and Mediterranean seabream (species identification). The species list is now reasonably well defined for the Baltic Sea, North Sea, Eastern Artic and North Atlantic, but still needs to be defined for the Mediterranean and Black Seas. Species lists needs to be agreed with local experts and the EC before finalising.

The EC stipulated that a threshold should be included below which no recreational fishery data will be collected for individual species. This is inconsistent across the EU MAP as no commercial metier has a threshold for reporting landings. There is no scientific basis for a threshold for collection of recreational catches, as the importance of recreational fishing will depend not just on species, but also on status of the stock. Hence, an arbitrary threshold has to be imposed. Initial proposals suggested that the threshold should be based on data, but where data did not exist, then the numbers of fishing licences or fishing vessels could be used as a proxy. However, this did not make sense as many countries do not have a fishing licence and neither numbers of

licences or vessels is likely to be closely related to catch. Thresholds should ideally be based on the proportion of fishing mortality caused by recreational fishing, but this was not possible as this is extracted from stock assessments and subject to many modelling assumptions. Thresholds based on landings were also considered, but rejected as this would exclude the released component of the recreational fishery and not take into account management measures like bag limits that reduce recreational catches (e.g. seabass). Finally, thresholds that relate recreational harvests and dead releases to commercial catch and discards were rejected due to the large uncertainty in estimates of commercial discards. In the end, an arbitrary threshold was defined where data show that the total recreational catches (harvest and releases) represent more than 5% of the combined commercial landings and recreational catches for any stock. However, the appropriateness of this threshold should be evaluated regionally and by the STECF, especially where recreational catch is reduced due to high voluntary or mandatory release rates or where there is high or unknown post-release mortality. If multispecies surveys are done as proposed, then surveys will be needed when a single species exceeds the threshold.

In many cases, multispecies surveys are already done or could easily be implemented with little additional cost, so should be considered as the best option for recreational surveys. This would ensure consistent design of surveys and provide a dataset that could be used for assessment of new stocks as the time series catch data needed would exist. This would increase the robustness of the recreational data collection programme significantly and increase the utility for end-users with minimal additional cost. Where multispecies surveys are already being done, the EU should collect data from the whole survey rather than just the minimum species list. In addition, there is need for a data call in across all species at a European level for recreational fisheries, not just the species covered under the DCF, in order to assess current impact of recreational fisheries, that should be led by the ICES WGRFS.

The Commission Implementing Decision on the Work Plans was derived using the same arguments as the Commission Decision on the EU MAP. No further information is included in the implementing decision apart from the reporting templates. Table 11 was created for Member States to include key aspects of their proposed survey for STECF approval (white columns) and STECF to assess if the Member State had delivered the survey as described (grey columns). The information included in Table 11 relates to location (MS, year, region, regional fisheries management organisation), species (name, if sampling is required), catch estimates (catch, release, composition), and survey methods. Obviously far more information about the survey is needed to assess the robustness of the methods and quality of the data produced. Hence, further information should be provided for assessment by STECF, RCGs and ICES. The requirements for further information are no different to what is required from a commercial perspective. As a result, recreational fishing surveys should follow the description for the commercial fisheries surveys outlining the periodicity (Chapter 3), survey design (Chapter 4) and the quality assurance and quality control (Chapter 5). Data should be made available to end users (Chapter 6) and regional cooperation should be utilised where appropriate (Chapter 7).

As guidance for filling in Table 11, the following points are suggested:

- All the species listed in the EU MAP Table 4 of the recreational fishery (by region) should be reported here, even if the species are not present in the country
- MS should indicate whether it has planned an estimation of the annual catch weight and rate of released fish, and eventually to report them in the AR.
- A column requests the reason for not sampling a certain species (e.g. species not present in the area, regulations/laws in the country, fit the requested threshold, etc.)
- The column "Type of survey" to indicate which methods will be implemented by MS to estimate catch, and release (e.g. phone survey, questionnaire, on-site interviews, etc.)

• Two columns (one for the WP and the other for the AR) to indicate if MS has planned and thereafter achieved the collection of biological variables.

3.5 Surveys

Regarding surveys, the draft tables for the work plan were adapted as well as the survey elements in the draft text. The changes were made having the work plan as well as future reporting and evaluation in mind.

Note: For internationally coordinated surveys, the information contained in the National Work Plan should contain only the contribution of the MS to the survey.

The proposed Table 18a was adapted to have more focus on the survey planning and the actual achieved performance of the survey. These changes highlight survey planning and the regional cooperation while allowing for national surveys to be included for reporting as well. Only the sampling activities related to the collection of core variables should be included in this table. For mandatory surveys, core variables are those agreed in the relevant international group in charge of planning the survey and included in the survey manual. For non-mandatory surveys, core variables are those determining the design of the survey, as determined by the national or international body in charge of planning the survey. Quantitative targets need to be set for the activities related to core variables included in this table.

To cater for more detailed reporting on the actual data collected, Table 18b was introduced. This table lists all core variables collected during the survey and the respective data dissemination and use in advice. Moreover, additional data collection can be reported here to highlight other data collection programmes benefiting from the survey. E.g. in case the survey is opportunistically used as platform for data collection on cetaceans, birds or other additional data collection apart from the prescribed collection under the respective survey handbook.

As guidance for the WP text, the EWG 16-01 proposes to use the following text boxes:

- 1. Name and acronym of the Survey.
- st For mandatory surveys, use the same name and the acronym included in the EU-MAP Table 12

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- 2. Period of the year covered
- * For mandatory surveys, use the same period of the year included in the EU-MAP Table 12

(max. 15 words)

- 3. Areas covered
- * For mandatory surveys, use the same areas included in the EU-MAP Table 12

(max. 15 words)

4. Objectives of the survey

(max. 100 words)

5. Description of the methods used in the survey. For mandatory surveys, link to the manuals agreed in the relevant international group in charge of planning the survey

(max. 100 words)

6. For internationally coordinated surveys, describe the participating nations/vessels and the relevant international group in charge of planning the survey

(max. 50 words)

7. Where applicable, describe the international task sharing (physical and/or financial) and the cost sharing agreement used

(max. 50 words)

3.6 Economic and transversal variables

The draft National Work Plan provided by the COM was revised by the EWG 16-01 and draft WP standard tables were produced. The text from the previous National Programme guidelines was integrated into the new WP structure.

The EWG 16-01 recommends that the definitions for the economic variables, methodological aspects and clustering schemes should be provided in the Methodological Guidance and removed from the WP templates. MS should apply common definitions and methodology. If a MS has a deviation from the Methodological Guidelines, a justification and any requested derogation or non-conformity with the requirements of the EU MAP should be provided in the text. When relevant, this justification should be based on scientific evidence. However, MS should note that under the EU MAP, there are no provisions for the exclusion of any part of the population from data collection (by means of thresholds, e.g. fishing effort, quantities landed, revenues, etc.).

The EWG 16-01 suggests to change the name of the tables due to the changes in the EU MAP structure as well as to delete some tables from the WP templates

To take into consideration the social variables, two options could be considered: 1) add a new table or 2) include the social variables in table 15 (fleet), 16b (aquaculture) and 17 (processing). The draft Decision for WP template should be adjusted accordingly.

For the qualitative tables, drop-down menus (custom lists) could be applied for filling in information. The menus could allow choosing parameters referring to the EU MAP.

The field "WP date of submission" could be automated for all Excel tables and linked with the current WP date for the WP version control.

The column "Variable" in the Excel tables for fleet economics, aquaculture and fish processing should include a full list of economic or transversal variables provided in the EU MAP. In cases when for some variables data collection has not been implemented, the column "Planned sample rate" should be filled in with "NO". The EWG 16-01 suggests keeping the column "Planned Sample rate" as flexible part for the WP. The planned sample can be modified based on updated information on the total population.

The EWG suggests providing all necessary information about economic data collection in one table for fishery, aquaculture and fish processing and deleting the following previous NP tables: II.B.3 - Economic Data collection strategy; III.B.2 - Economic Clustering of fleet segments; IV.A.3 - Sampling strategy - Aquaculture sector; IV.B.2 - Sampling strategy - Processing industry.

The clustered and non-clustered segments should be provided in the columns "Fishing technique" and "Length class" for the table "Fleet economic data collection". The segments clustered with other segment(s) for sampling purposes should be marked with an asterisk. Information about clustering and detailed clarifications should be provided in the WP text. The clustering schemes should be provided by Methodological Guidelines.

Information about active and inactive vessels should be included in the table "Fleet Economic". The Planned Sample rate (%) should be based on the official fleet population in the Fleet Register on the 31st of December and any active vessel fishing at least one day during the year.

The previous NP table "Transversal Variables Data collection strategy" was changed into the new table "Fishing Activity Variables Data collection strategy". The new table provides a link between economic and biological modules through the new included columns: Supra-region; Fleet segment; Metiers (level 6). The data sources, either Control Regulation or complementary data collection, should be clearly stated for each variable group or variable in the case different sources should be used within a specific variable group. For each of these data sources, the planned coverage percentage, estimated on the basis of fishing trips, should be provided as quality assurance and quality control framework indicators. MS should describe the methodologies used: to cross-validate the different sources of data, to estimate the value of landings, the average price (it is recommended to use weighted averages, trip by trip) and to collect the complementary data (sample plan methodology, type of data collected, frequency of collection, etc.).

MS should describe the methodology followed to derive final estimates, whether it is in line with guidance/best practice across the EU or if a specific approach is being used. MS may provide detailed calculation procedures, including statistical ones, in an annex. MS shall describe specific actions for fleet segments, geographical areas and/or fish quantities landed not covered under the Control Regulation. MS shall provide estimates based on representative samples at the lowest relevant geographical level.

The EWG 16-01 draws attention to the table "Aquaculture activities" which should be changed according to the final version of that table in the EU MAP. The table is linked to the table "Population segments for collection of aquaculture data" through the columns "Techniques" and "Species group".

For the Aquaculture and Fish processing data collection, the MS should specify if data are collected under Structural Business Statistics (SBS, Reg. 295/2008). The data quality requirements have not to be addressed for data that are collected under SBS.

In order to provide a brief clarification in text boxes on the contents expected in the tables, some chapters from the previous NP guidelines were restructured and integrated under each table in the draft WP Decision. However, the EWG 16-01 suggests giving an opportunity for the MS to include a more detailed clarification about data collection strategy in an Annex of the new WP.

Information about data sources should be provided in the Excel tables and in the WP text. Among others, data sources could be based on questionnaires, accountings, (official) data, or combination of both. Data sources should be clearly stated for each variable. Descriptions on how the consistency of data coming from different data sources will be ensured, should be provided in the text. Where survey work is being undertaken, concise details should be given separately for each sector (fleet, aquaculture, fish processing) in the Annex about:

- Data sources
- Type of data collection (Information about type of data collection scheme and explanation should be provided in the Excel tables and WP text. The column "Type of data collection scheme" in the Excel tables should be filled in with information: A Census; B Probability Sample Survey; C Non-Probability Sample Survey; D-Indirect survey. In case the variable is not directly collected but estimated, an indirect survey is applied. In that case, further explanation on the data collection scheme and estimation method is provided in the WP text.)
- Target and frame population
- Sampling frame and allocation scheme
- Estimation
- Data quality (Due to the limited time for the discussion, the EWG 16-01 focused only on the planned part for the WP template. The quality indicators "Planned sample number", "Achieved sample number", "Coverage rate (%)" and "Achieved sample rate (%)" should be provided in the Annual Reports but excluded from the WP tables. However, in the WP text, it should be clearly stated which of the quality indicators will be provided for the AR and data calls.)

The main issues and changes for the WP modules are included in the following table:

Table Modules NP/WP	Comments	Status
Table 15. Population segments for collection of economic data.	- The column "Planned sample rate (%)" could be flexible. The planned sample can be modified based on updated information on the total population (fleet register).	Should be kept for WP templates
	- The columns "Length class" and "Fishing technique" should include information about all active and inactive non-clustered fleet segments. The segments clustered with other segment(s) for sampling purposes should be marked with an asterisk. The information about classification of clustering should be provided in the WP text. The clustering schemes should be given by the Guidance document.	
	 Information about inactive vessels should be provided in the Excel tables and WP text. The column "Fishing technique" for the inactive vessels should be filled in with "Inactive". 	
	 The column "Fishing technique" should provide only information about the name of the gear (refer to the EU MAP Table 6a), but not information if active or passive gear has been used. 	
Table III.B.2 - Economic Clustering of fleet segments	Information should be provided in Table III.B.1 and in the WP text.	Should be deleted from the WP templates.

Table III.B.3 - Economic Data collection strategy	Information should be provided in Table III.B.1.	Should be deleted from the WP templates.
Table 14. Fishing activity variables data collection strategy	The columns "Supra region", "Fishing technique" and "Length class" are included in the table. These columns could provide a link between the table on "Fleet Economic" and "Transversal" data collection.	Should be kept for WP templates
Table 16a. General overview of aquaculture activities	Should be updated according to the final version of the EU MAP.	Should be kept for WP templates
Table 16b. Population segments for collection of aquaculture data	 The column "Planned sample rate (%)" could be flexible. The planned sample can be modified based on updated information on the total population. The columns "Techniques" and "Species group" should provide a link between Tables IV.A.1 and IV.A.2. 	Should be kept for WP templates
Table IV.A.3 – Sampling strategy - Aquaculture sector	Information should be provided in Table IV.A.2	Should be deleted from the WP templates.
Table 17. Processing industry: Population segments for collection of economic data	 The column "Planned sample rate (%)" could be flexible. The planned sample can be modified based on updated information on the total population. For the column "Segment" following segmentation are recommended: Companies <= 10 Companies 11-49 Companies 50-249 Companies >=250 	Should be kept for WP templates
Table IV.B.2 – Sampling strategy - Processing industry	Information should be provided in Table IV.B.1	Should be deleted from the WP templates.

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5 CONTACT DETAILS OF STECF MEMBERS AND EWG-16-01 LIST OF PARTICIPANTS

1 - Information on STECF members and invited experts' affiliations is displayed for information only. In any case, Members of the STECF, invited experts, and JRC experts shall act independently. In the context of the STECF work, the committee members and other experts do not represent the institutions/bodies they are affiliated to in their daily jobs. STECF members and experts also declare at each meeting of the STECF and of its Expert Working Groups any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda. These declarations are displayed on the public meeting's website if experts explicitly authorized the JRC to do so in accordance with EU legislation on the protection of personnel data. For more information: http://stecf.jrc.ec.europa.eu/adm-declarations.

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6 LIST OF ANNEXES

Electronic annexes are published on the meeting's web site on: https://stecf.jrc.ec.europa.eu/ewg1601

List of electronic annexes documents:

- 1. EWG-16-01 Annex 1- Proposal_COM_Decision_EU-MAP_EWG-16-01(doc)
- 2. EWG-16-02 Annex 2 Draft_Decision_WP_template_EWG_16-01 (doc)

7 LIST OF BACKGROUND DOCUMENTS

Background documents are published on the meeting's web site on: https://stecf.jrc.ec.europa.eu/ewg1601

List of background documents:

- 3. EWG-16-01 Doc 1 Declarations of invited and JRC experts (see also section 6 of this report List of participants)
- 4. EWG-16-01 Doc. 2 Draft COMMISSION DECISION of XXX adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors (European Commission, version 29 Feb 2016).
- 5. EWG-16-01 Doc. 3 NOTE TO STECF EXPERT WORKING GROUP 16-01, Subject: Opinion on the draft Union multi-annual programme on fisheries data collection and on the draft template for national work plans (European Commission, 24 Feb 2016).
- 6. EWG-16-01 Doc. 4 Draft COMMISSION IMPLEMENTING DECISION of XXX laying down rules on procedures, format and timetables for the submission of work plans for data collection (European Commission, version 4).
- 7. EWG-16-01 Doc. 5 Explanatory Notes on National Work plan templates economic part (Ad-hoc expert Irina Davidjuka, March 2016), incl. 4 Annexes.
- 8. EWG-16-01 Doc. 6 Explanatory Notes on National Work plan templates biological part (Ad-hoc expert Paolo Carpentieri, March 2016).

8 ANNEX 1 – DRAFT EU MAP WITH "TRACK CHANGES" BY THE EWG 16-01



Brussels, XXX [...](2016) XXX draft

COMMISSION DECISION

of XXX

adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors

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COMMISSION DECISION

of XXX

adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No xx/xx of xx and in particular xxx thereof,

Whereas:

- (1) Pursuant to Article xxx of Regulation (EC) No xx/xx of xx, a multiannual Union programme for the collection, management and use of data in the fisheries sector is to be adopted for the purpose of uniform application of the obligation to collect and manage data. The current multiannual Union programme was prolonged by Commission decision C(2013)5243 until 31 December 2016. It is therefore necessary to establish the multiannual Union programme for the period starting 1 January 2017.
- (2) The programme defines data collection requirements, in the scope defined in Article 1 of Regulation (EC) No xx/xx in as far as they are not already required under other legislative frameworks and in accordance with the criteria defined in Article xx. It lists mandatory research surveys at sea in accordance with the requirements defined in Article xx and thresholds for participation by Member States in data collection and research surveys based on the criteria defined in Article xxx.
- (3) When drafting the programme the Commission has taken account of the recommendations resulting from consultation with the Regional Co-ordination Groups referred to in Article 8 of Regulation (EC) No xx/xx, the Scientific, Technical and Economic Committee for Fisheries (STECF) and the International Council for the Exploration of the Sea (ICES) in its role of other appropriate consultative scientific body in accordance with Article 4 (2) of Regulation (EC) No xx/xx.
- (4) When drafting the programme the Commission has taken account of the objectives of of Regulation (EU) No 1380/2013 on the Common Fisheries Policy, in particular Article 25 on data collection, and Article 2, which states that the CFP shall ensure that fishing and aquaculture activities are environmentally sustainable in the long-term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies while gradually eliminating discards.
- (5) The measures provided for in this Decision are in accordance with the opinion of the Management Committee for Fisheries and Aquaculture.
- (6) The programme aims at supporting the regionalisation of the fisheries management measures enabling adequate scientific advice at regional level by encouraging cooperation between Member States by creating a stable multi-annual regional framework to better target data for sea-basin policies, such as the landing obligation.

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Comment [A1]: This is a synthesis of recital n. 22 in the previous DCF regulation (highlighted), and the paragraph on Regional cooperationon page 22 in the Com. Staff working paper of June 2015

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HAS ADOPTED THIS DECISION:

Article 1

The multiannual Union programme for the collection, management and use of data in the fisheries sector for the period 2017 and beyond, as referred to in Article xx of Regulation (EC) No xx/xx, is set out in the Annex.

Article 2

This Decision is addressed to the Member States.

Done at Brussels,



ANNEX¹

<u>Multi annual Union programme for the collection, management and use of data</u> in the fisheries and aquaculture sectors

Chapter I Definitions

- 1. For the purpose of this Union programme, definitions in Regulation No 1224/2009, 404/2011, 1380/2013 and xx/xx and the following definitions shall apply:
 - (a) **active vessels**: vessels that have been engaged in any fishing operation (more than 0 days) during a calendar year. A vessel that has not been engaged in fishing operations during a year is considered "inactive";
 - (b) **days at sea:** any continuous period of 24 hours (or part thereof) during which a vessel is present within an area and absent from port;
 - fishing days: any day at sea with fishing operation each day is attributed to the area where the most fishing time was spent during the relevant day at sea. However, for passive gears, if no operation took place from the vessel during a day while at least one (passive) gear remained at sea, that day will be associated to the area where the last setting of a fishing gear was carried out on that fishing trip;
 - (e)(d) **fishing ground**: (group of) geographical units where fishing takes place based on existing areas defined by Regional Fisheries Management Organisations or scientific bodies, to be agreed within regional co-ordination;
 - (d)(e) mesh size range: range of mesh sizes of fishing nets as determined in accordance with Regulation (EC) No 517/2008;
 - (e)(f) metier: a group of fishing operations targeting a similar (assemblage of) species, using similar gear², during the same period of the year and/or within the same area and which are characterised by a similar exploitation pattern;
 - population of vessels: all vessels in the Union Fishing Fleet Register as defined in Commission Regulation (EC) No 26/2004 (³)_at a specific point in time on December 31st and any active vessel fishing at least one day during the year during the reference year;
 - (h) **fleet segment:** group of vessels with the same length class (LOA) and predominant fishing gear during the year;
 - (f) sampler/sampling staff: operating staff designated by the body in charge of the implementation of the Work Plans for Data Collection including samplers/observers at sea and in ports, and statisticians for socio economic data;
 - (g)(i) sampling frame: list of all individuals or sampling units that can be selected independently with known probability by randomised sampling. The frame may

For reference, tables corresponding to former [Appendices] in Commission Decision 93/2010 are indicated in square brackets.

Gear types specified in Annex XI of Regulation (EU) No 404/2011

³ OJ L 5, 9.1.2004, p. 25-35.

- represent the entire population of interest or may be incomplete because not all sampling units are accessible for sampling;
- (h) **soaking time**: time calculated from the point where each individual unit of gear has been set, to the time when the same unit starts to be removed; .
- (i)(j) **anadromous species**: living aquatic resources with lifecycle starting by hatching in freshwater, migrating to saltwater, returning and finally spawning in freshwater:
- (j)(k) catadromous species: living aquatic resources with lifecycle starting by hatching in saltwater, migrating to freshwater, returning and finally spawning in saltwater;
- (l) Index river: intensively monitored systems river basins that employ a variety of sampling methods to produce census and other biological data that include both juvenile and adult life stages of the target fish species. This definition extends to lagoons or other water bodies where these are the main productive area for eel;
- (m) Catch fraction: is a part of the total catch, such as the part of the catch landed above the minimum conservation refrence size, the part landed below the minimum conservation reference size, the part discarded below the minimum conservation reference size, de minimis discards and discards;
- (n) **Population of aquaculture enterprises:** enterprises whose primary activity is defined according to the Eurostat NACE codes 03.21 and 03.22 and who operate for profit;
- (o) **Population of processing enterprises:** enterprises whose main activity is defined according to the EUROSTAT definition under NACE Code 10.20.
- (p) research surveys at sea: A voyage dedicated to the collection of data for scientific purposes, carried out by a vessel designated for this task
- (q) **Fishing platforms** for anadromous and catadromous species include registered vessels, non-registered vessels, fixed installations and 'on-foot'.

(k)

2. <u>2. Data collection methods shall be appropriate for the intended purposes defined in par.</u> (1) and to inform end users of the quality of the data.

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CHAPTER II Data requirements

In accordance with Articles 3, 4 and 5 of [Council Regulation (EC) No 199/2008 on the data collection framework for fisheries], and taking into account the thresholds set out in Chapter IV, Member States shall establish, as part of the workplans defined in Article 21 of Regulation (EU) No 508/2014, the data to be collected amonst the following sets: sampling plans for the collection of data on commercial fisheries based on statistically robust principles. The sampling schemes shall encompass the total landings into the Member State and fishing activities of vessels operating under the flag of the Member State.

Data shall be collected to enable valid estimates to be derived for fisheries, temporal periods and areas determined by end-user needs agreed in the regional coordination groups.

Regional sampling plans for the collection on commercial and recreational fisheries put in place in accordance with Article 8 of [Council Regulation (EC) No 199/2008 on the data collection framework for fisheries] should be based on statistical robust principles which might imply that thresholds for sampling at the national level are redundant. In such case, this should be highlighted in the regional plan.

The data to be collected include the following sets:

- 1. Data to support assessment of the state of exploited marine resources and the level of fishing, stocks fished by Union commercial fisheries in Union and outside Union waters and by recreational fisheries in Union waters. These data consist of:
 - <u>Catch quantities by species and biological data from individual specimens enabling the estimation of:</u>
 - i. the volume and length frequency of all catch fractions by stock, reported at the aggregation level 6 in Table 3.
 - ii. the annual volume (number, weight and length composition) of catches and releases of recreational fisheries for the relevant species as listed in Table 4 or identified by pilot studies and management needs, subject to compilation by the RCGs. Where possible, multispecies data should be collected.
 - iii. the mean-weight and age distribution of stocks, listed in Table 1A, B and C in the catches,
 - iv. the sex-ratio, maturity ogives and fecundity data for stocks listed in Table 1A, B and C from commercial catches.

Detailed species lists, definitions, additional variables and specification of methodologies (including sampling intensity and frequency) may be compiled by the regional coordination groups in cooperation with the main end-users and taking account STECF recommendations.

- a) For anadromous and catadromous species, as indicated in Table 2, stock related biological variables (for individual specimens, on age, length, weight, sex, and fecundity, by life stage, but further specified on a species and regional basis), and annual catch quantities by age class or life stage, caught by commercial and recreational fisheries, including during the freshwater part of their lifecycle.
- b) In addition, in at least one Eel Index River basin per Eel Management Unit, information (e.g. data, estimates, relative trends, etc.) should be annually collected on the abundance of recruits, the abundance of the standing stock (yellow eel) and on the number orweight, and sex ratio of emigrating silver eels, and once every Eel Management Plan reporting period information should be collected on the other anthropogenic impacts that are reported in national assessments for Eel Management Plans. In all wild salmon and sea trout stocks in Index rivers, information should be annually collected on the abundance of smolt and parr and number of ascending individuals. The designation of Index Rivers to be approved by RCGs or ICES or equivalent.
- Data to assist in the assessment of the impact of fisheries in Union waters and outside Union waters, on incidental by-catch of species, in particular species protected under

international or Union law, marine habitats and data on impacts of fisheries structure on food webs. These data consist of:

a) For all fisheries, incidental by-catch of all birds, mammals and reptiles and fish protected under Union legislation and international agreements, shall be observed and recorded including absence in the catch during fishery-dependent observer trips and fisheryindependent surveys.

In case fisheries observer trips are not considered to cover the data collection of incidental by-catch sufficiently for end-user needs, additional data collection may be implemented by MS after approval of RCGs based on end-user needs.

b) additional methodologies shall be implemented by MS.

- In addition to the species listed in Table 4, mulitspecies pilot studies of recreational fisheries catches and releases should be conducted regularly (every 5 years). This should include assessed stocks, protected, rare, vulnerable, threatened and endangered species, and other relevant species defined by the RCGs, and used by RCGs to assess need for further specific annual data collection requirements. The species to be included in the pilot studies will be decided by the RCGs.
- c) Data to assist in the assessment of the impact of fisheries in Union waters and outside Union waters on marine habitats, the variables describing the impact of fisheries on the marine habitat should be covered sufficiently under the Control Regulation as these variables are considered as transversal variables. Should the quality of data collected under the Control Regulation be insufficient, additional data collection may be implemented by MS after approval of RCGs based on end-user needs. Data needed should be made available to the designated body in charge of the implementation of the national work plans.
- d) For estimating the impact of fisheries on marine food webs, data shall be collected based on the end-user needs specified within regional coordination groups.
- 3. For the deep-sea fisheries, any additional biological data for scientific evaluation should be collected in accordance to the [ref. deep sea regulation]. Data specified in Table XX recorded in accordance with Council Regulation (EC) No. 1224/2009 shall be made available to the designated body in charge of the implementation of the national work plans. Where the quality of these data is not complying with the quality required for scientific purposes, these data can be collected using alternative methods. This is to be decided within the Regional Coordination Groups.
- Research surveys at-sea as specified in Chapter III
- 5. Biological data on stocks4 caught or by-caught, including discards, by Union commercial fisheries in Union and outside Union waters and by recreational fisheries in Union waters. These data consist of:

Stock related variables for the stocks listed in Table 1A, B and C former Appendix VIII containing information, for individual specimens, on age, length, weight, sex, maturity and fecundity, further specified on a regional basis.

Catch quantities by species and type of fisheries enabling the estimation of:

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Detailed lists, definitions, additional variables and specification of methodologies (including sampling intensity and frequency) may be compiled by the regional coordination groups in cooperation with the main end users and taking account of STECF recommendations.

quarterly length distribution of species in the catches,

quarterly volume of catch fractions (including discards) for the stocks listed in Table 1A, B and C [former Appendix VII], reported at the aggregation level (metiers) in Table 3.

quarterly volume of catch of recreational fisheries for the relevant species as listed in Table 4.

For anadromous and catadromous species, as indicated in Table 1E stock related variables and eatch quantities by age class, caught by commercial and recreational fisheries, including during the freshwater part of their lifecycle and independent of the way these fisheries are undertaken. This includes in particular:

for European eels, all Eel Management Units established in accordance with regulation EC 1100/2007;

for salmon, all areas of natural distribution during the freshwater part of the lifecycle;

for sea trout, all river basins/water bodies connected to the Baltic Sea.

In addition, in at least one Eel Index river basin per Eel Management Unit, information should be annually collected on the abundance of recruits, the abundance of the standing stock (yellow eel) and on the number, weight and sex ratio of emigrating silver eels. In all wild salmon stocks in index rivers, information should be annually collected on the abundance of smolt and parr and number of ascending individuals.

Data to assess the impact of Union fisheries on the marine ecosystem in Union waters and outside Union waters, including data on by eatch of non-target species5, data on impacts of fisheries on marine habitats and data on impacts of fisheries structure of food webs. These data consist of:

For all fisheries listed in Table 3 [former Appendix IV], incidental by catch of all birds, mammals and turtles and and non-commercial fish protected under Union legislation and international agreements, in particular the species listed in table 1D, shall be recorded during observer trips and surveys on a haul by haul basis.

Unless this information is already available, pilot studies shall be performed for each type of fisheries in order to establish, for each metier, what data are needed to estimate its impact when combined with data referred under (3). These pilot studies shall unable the evaluation of measures to reduce the impact of commercial and recreational⁶ fisheries on the marine ecosystem, on vulnerable marine resources and on marine biodiversity⁷ and ecosystems, as well as Commission measures in case of serious threaths to marine biological resources as provided for in Article 7, 11 and 12 of Regulation (EU) No 1380/2013. In particular, the impact on sea-

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In particular species protected under international or Union law and for monitoring under the CITES Regulation (Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein Official Journal L 061, 03/03/1997 P. 0001 — 0069).

The future DCF Regulation provides for an increased effort to collect scientific data on recreational fisheries. In their advice about the future EU Multiannual Programme, STECF 14-07 advised to add to the existing data requirements (see above) that eel and salmon data be collected in all regions (including fresh water), and that in the Baltic Sea trout, in the North Sea and Eastern Arctic European lobster, Sea bass and Pollack, in North Atlantic Pollack, Sea bass in the Mediterranean and Black Sea all highly migratory ICCAT species and data on ecosystem impact of recreational fisheries be collected. STECF 14-19 (Med assessments) signals the need to collect recreational data on seabream.

Tools for evaluation of measures, impacts and threat are descriptors under the Marine Strategy Framework Directive (MFSD) describing the environmental status of marine waters (Article 3 of the Directive

floor habitat types⁸ and their associated benthic communities shall be estimated in deep sea metiers⁹ to enable the identification of vulnerable habitats and, when needed, for management measures in other metiers. These requirements may be further specified within regional coordination groups.

For estimating the impact of fisheries on marine food webs¹⁰, data needed to enable pilot studies on the ecological relationships between commercial and other species, including analysis of stomach contents of key species, shall be collected based on the end users needs specified within regional coordination groups.

For the deep sea species listed in Table 1 D, Member States shall ensure that data collected for an area that comprises both Union waters and international waters shall be further disaggregated so that they refer to Union waters or to international waters separately.

In addition, data collection for deep sea métiers shall be done separately from other metiers. Discards shall be sampled in all deep sea métiers. Member States shall also collect the geographical location of the fishing activities on a haul-by-haul basis and the fishing depths at which the gears are deployed, in case the vessel is subject to reporting by electronic logbook. ...

Data to assess the activity of Union fishing vessels in Union waters and outside Union waters consist of the variables as indicted in Table 5 [former Appendix VIII]. Primary data as reported under Regulation 1224/2009 are to be made available to the designated body in charge of the implementation of the national work plansto the National Institutions implementing the Working Plans. When data are not to be collected under Regulation 1224/2009 or when data collected under Regulation 1224/2009 are not appropriate for scientific use, they can be collected using alternative statistical methods. These statistical methods should allow for the estimation of variables listed in Table 5 at the lowest relevant geographic level by fleet segment (table 6a) and metier level 6 (table 3)

6. Detailed data on the activity of Union fishing vessels in Union waters and outside Union waters as reported under Regulation 1224/2009 must be made available to end users as a supplement to biological and economic data. Variables to be made available are listed in Table 5 [former Appendix VIII]. Estimates shall be made based on representative samples where data are not to be collected under Regulation 1224/2009 as regards certain segments of the fleet, certain geographical areas or quantities of fish landed below a certain threshold, or where geographical areas are insufficiently covered. These sampling programmes should allow for the estimation of such parameters at the lowest relevant geographic level.

Social and economic data on fisheries shall be collected to enable the assessment of the social and economic performance of the Union <u>commercial</u> fisheries sector. They consist of:

a) Economic variables as indicated in Table 6 [former Appendix VI]. according to the sector segmentation of Table 6a [former Appendix III] and according to the supraregions as defined in table 6b [former Appendix II]. The population is all vessels in the EU Fishing Fleet Register on December 31st and any active vessel fishing at least one day during the year.—In addition For inactive vessels only capital value, capital cost, investments and subsidies on investment have to be collected—for inactive vessels. In cases where a fleet segment has less than 10 vessels, clustering may be necessary in order to design the

2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy) Descriptor 1: Biodiversity

- 8 Descriptor 4 of the MSFD: Marine foodwebs
- As defined in Regulation xx/XXX [deap sea]
- Descriptor 6 of the MSFD: integrity of the sea floor

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sampling plan and to report economic variables. Economic data shall be collected on a annual basis.

b) Social variables as indicated in Table 7. Social data shall be collected every three years.

Detailed definitions and specification of methodologies may be compiled by the European coordination groups (?PGECON?) in cooperation with end users and taking account of STECF recommendations.

- 7. Social and economic data and sustainability data on aquaculture shall be collected Social and economic data and sustainability data on aquaculture to enable the assessment of the social and-economic performance and the sustainability of the Union aquaculture sector, including its environmental impact. They consist of:
 - <u>a)</u> Economic variables as indicated in Table 8 [Appendix X] according to the sector segmentation of Table 9 [former Appendix XI]. The population is all enterprises whose primary activity is defined according to the Eurostat NACE codes 03.21 and 03.22 and who operate for profit. Economic data shall be collected on annual <u>basis</u>.
 - b) Social variables as indicated in Table 7. Social data shall be collected every three years.
 - c) Sustainability data on aquaculture as indicated in Table 10.

Detailed definitions and specification of methodologies may be compiled by the European coordination groups (?PGECON?) in cooperation with end users and taking account of STECF reccomendations.

Detailed information on implementation of aquaculture data collection shall be provided in workplans, taking into account data requirements specified in Reg. xx (RECAST)

8. Social and economic data on fisheries processing sector shall be collected Social and economic data are needed to enable the assessment of the social and -economic performance of the Union fisheries processing sector. They consist of:

Economic variables as indicated in Table 11 according to the segmentation specified within relevant European expert groups (?PGECON?). The population is all enterprises whose main activity is defined according to the EUROSTAT definition under NACE Code 10.20.

Economic variables for main activity enterprises shall be collected on annual basis. Number of enterprises and turnover for non-main activity enterprises shall be collected biennially.

Workplans shall clearly identify the variables and the part of the population covered through Regulation (EC) No 295/2008 concerning structural business statistics and the variables and the part of the population that have to be covered through additional data collection methods.

Social variables as indicated in Table 7. Social data shall be collected every three years.

Detailed definitions and specification of methodologies may be compiled by the European coordination groups (?PGECON?) in cooperation with end users and taking account of STECF recommendations.

<u>CHAPTER III</u> Research surveys at sea

- 1. At least all research surveys at sea listed in Table 12 shall be carried out.
- 2. Member States' respective contribution to international surveys shall be agreed within Regional Co-ordination Groups.
- 3. Member States participating in the surveys shall include them in their national or regional workplans defined in Article 21 of Regulation (EU) No 508/2014.
- 4. Member States shall guarantee within their national or regional work plans continuity with previous survey designs.

CHAPTER III Research surveys at sea

- 1. At least all research surveys at sea listed in Table 12 [former Appendix IX] shall be carried out.
- 2. For anadromous and catadromous species, recruitment surveys and surveys for standing stock can also be carried out in rivers and other freshwater bodies.
- 3. Member States shall establish, as part of the workplans defined in Article 21 of Regulation (EU) No 508/2014, the researche surveys at sea to be carried and shal responsible for these surveys.
- 4. Member States' respective contribution to international surveys shall be discussed within Regional Co ordination Groups.
- 5. Member States shall guarantee within their national or regional work plans continuity with previous survey designs.
- 6. Notwithstanding points 1 and 2, Member States may adapt, as part of their work plan, the survey effort or sampling design, provided that this does not negatively affect the quality of the results and provided that this is coordinated within regional coordination groups. Member States may agree to redistribute certain tasks and contributions with other Member States in the same region, but will remain primarily responsible for carrying out their own tasks. Any agreements to do this shall be notified to the Commission. [articulation with workplan template to be further elaborated]

CHAPTER IV Thresholds

For biological data

The following thresholds shall apply for data collection of commercial and recreational fisheries in EU waters and on EU vessels¹¹ in the absence of, probability based sampling designs, regional sampling plans or agreements with end-users in the Regional Coordination Groups:

- 1. No biological data (individual length, weight, age, sexual maturity, fecundity) need to be collected if, for a certain fish stock or species, the Union's share of international stocks is less than 10%.
- 2. The national work plan of a Member State may exclude the collection of biological data for stocks for which TAC's and quota have been defined under the following conditions:
 - (a) the relevant quota must correspond to less than 10 % of the Union share of the TAC or to less than 200 tonnes on average during the previous three years;
 - (b) the sum of relevant quotas of Member States whose allocation is less than 10 % or 200 tonnes, must account for less than 25 % of the Union share of the TAC.
 - (c) Should the quota of a MS fall below 200 tonnes but be greater than 10% of the Union share of the TAC the Regional Coordination Group shall assess the impact on sampling at the Regional level before a derogation from sampling can be agreed.
- 3. For stocks for which TAC's and quotas have not been defined and which are outside the Mediterranean Sea and Black Sea, the same rules established under point 2 apply on the basis of the average landings of the previous three years and with reference to the total Union landings from a stock;
- 4. For stocks in the Mediterranean Sea and Black Sea, the landings by weight of a Member State for a species corresponding to less than 10 % of the total Union landings from the Mediterranean Sea and Black Sea, or to less than 200 tonnes.
- 5. No thresholds should be applied for Bluefin tuna.

For anadromous and catadromous species

- 6. For eels, no biological data from fisheries (commercial and recreational) need to be collected in an Eel Management Unit when total catches are less than: either 25 tonnes of silver-eel-equivalents; or less than 0.1% of total Community catches. No fishery-independent biological data need to be collected when eel are rare, subject to agreement with the RCGs.
- 7. For salmon and sea trout, no thresholds should be applied.

For recreational fisheries data

- Without prejudice to provisions on sampling of recreational fisheries set out in Regulation 1224/2009, data shall be collected to allow estimates of total recreational catches of stocks subject to recovery plans, and for other species listed in Table 4.
- 2. In the first instance, a threshold for MS to estimate recreational catches of these species in defined areas shall be where existing data show that the total recreational catches (harvest and releases) of these species in the defined areas represent more than 5% of the

¹¹ Thresholds do not apply for International agreements e.g data collection under RFMOs or SFPAs

- combined commercial catches (landings and discards) and recreational catches for any individual stock.
- 3. The appropriateness of such a threshold for any species will be reviewed by RCGs and STECF where landings are reduced due to high voluntary or mandatory release rates or where there is high or unknown post-release mortality.
- 4. In the absence of recreational catch estimates by a MS for any of the required species, pilot studies shall be carried out to evaluate the catches in relation to the 5% threshold as defined in point 2.

For social and economic data

The following thresholds shall apply for EU waters and EU vessels¹²:

- 1. No biological data need to be collected if, for a certain fish stock or species, a Member State's share of the related TAC, or in case there are no TACs fixed, total landings, are less than 3% of the total of the Union or, in the Mediteranean, less than 10%. The latter exception does not apply to Bluefin tuna. Regional coordination groups may develop alternative or more specific thresholds regionally in the absence of TACs.
- 2. No biological data need to be collected if, for a certain fish stock or species, a Member State's total landings is less than 100 tonnes, or in the Mediterranean, less than 200 tonnes. The latter exception does not apply to Bluefin tuna.
- 3. For cels, no biological data need to be collected in an Eel Management Unit when catches are less than 25 tonnes.
- 4. No biological data need to be collected if, for a certain fish stock or species, the Union's share of international stocks is less than 10%.
- 6. Without prejudice to provisions on sampling of recreational fisheries set out in Regulation 1224/20, no data on recreational fisheries need to be collected if estimates for a fish stock indicate that less than 5 % of fishing mortality may be caused by recreational fisheries. Such estimates may be based based on licences or number of vessels amongst others. If there is recent precise information available for a stock, the applicable threshold shall be 10%. No threshold shall apply to fish stocks subject to recovery plans such as those applying to large pelagic species.
- 7.6. With regard to social and economic aquaculture data, Member States may define a simplified methodology in their workplan if the total aquaculture production volume and value, as reported in the Member States' latest submission under Regulation (EC) No 762/2008, are both less than 1% of the total EU aquaculture production volume and value. The EU aquaculture production volume and value shall be the most recent data published by Eurostat. In this case, no socio-economic aquaculture data need to be provided on the production of species which account for less than 10% of the Member State's aquaculture production by both volume and value, as reported in the Member States' latest submission under Regulation (EC) No 762/2008. Alternative methods may also be developed for enterprises whose activities are not mainly aquaculture.
- 7. With regard to aquaculture sustainability data, Member States may define a simplified methodology in their workplan to estimate these data on a biennial basis. No aquaculture sustainability data need to be provided if the total aquaculture production volume and

¹² Thresholds do not apply for International agreements e.g data collection under RFMOs or SFPAs

value, as reported in the Member States' latest submission under Regulation (EC) No 762/2008, are both less than 2.5% of the total EU aquaculture production volume and value respectively. The EU aquaculture production volume and value shall be the most recent data published by Eurostat.

For research surveys at sea

8. Participation (physical or financial) in research surveys at sea is mandatory above a threshold of 3% of the EU TACs for a given stock where TACs are established. In regions without TACs management, participation (physical or financial) in research surveys at sea is mandatory above a threshold of 3% of the total EU landings for a given stock of the preceding 5 years. Regional coordination groups may develop alternative thresholds in the absence of TACs and in the case of multispecies surveys.



<u>**Table 1A**</u> [former Appendix VII]

Basic list of species in sea basins in EU waters for which additional biological variables (age, weight, sex, maturity, fecundity) [former appendix I and II]) further specified in the EU-MAP guidance document shall be collected

Species (common name)	Species (Scientific name)	Area where the Stock is located/stock code
	ICES areas I, II	
Tusk	Brosme brosme	I, II
Atlanto-Scandian herring	Clupea harengus	I, II,V, XIVa
Cod	Gadus morhua	I, II
Capelin	Mallotus villosus	I, II
Haddock	Melanogrammus aeglefinus	Ι, Π
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV
Northern shrimp	Pandalus borealis	I, II
Saithe	Pollachius virens	I, II
Greenland halibut	Reinhardtius hippoglossoides	1,11
Mackerel	Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX
GoldenRedfish	Sebastes norvegicus	I, II
Deep sea Redfish	Sebastes mentella.	Ι, Π
Horse mackerel	Trachurus trachurus	IIa, IIIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIa-e
	Skagerrak and Kattegat — ICES area IIIa	
Sand eel	Ammodytidae	IIIa

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Herring	Clupea harengus	IV, VIId, IIIa/22-24, IIIa
Roundnose grenadier	Coryphaenoides rupestris	IIIa
Grey gurnard	Eutrigla gurnardus	IIIa
Red gurnard	Aspitrigla cuculus	IIIa, IV
Cod	Gadus morhua	IV, VIId, IIIaN
Cod	Gadus morhua	IIIaS
Witch flounder	Glyptocephalus cynoglossus	Ша
Dab	Limanda limanda	IIIa
Haddock	Melanogrammus aeglefinus	IV, IIIa
Whiting	Merlangius merlangus	IIIa
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV
Norway lobster	Nephrops norvegicus	Functional unit
Northern shrimp	Pandalus borealis	IIIa, IVa east
Plaice	Pleuronectes platessa	IIIa
Saithe	Pollachius virens	IV, IIIa, VI
Turbot	Psetta maxima	all areas
Mackerel	Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX
Brill	Scophthalmus rhombus	IIIa
Sole	Solea solea	IIIa, 22
Sprat	Sprattus sprattus	IIIa
Norway pout	Trisopterus esmarki	IV, IIIa
	Baltic Sea — ICES Subdivisions 22-32	
Herring	Clupea harengus	22-24/25-29, 32/30/31/ Gulf of Riga
Common Whitefish	Coregonus lavaretus	IIId
Vendace	Coregonus albula	22-32

Comment [A2]: Red Gurnard: Red Gurnard was added to the WGWIDE stock list last year. It's stock definition (III, IV, V, VI, VII and VIII) includes IIIa and so should be listed.

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Comment [A3]: Changes in accordance with suggestion from RCM Baltic 2015. Red should go out, green should go in

1		
Cod Gadus morhua		22-24/25-32
Dab	Dab Limanda limanda	
Whiting Merlangius merlangus		22-32
Smelt	Osmerus eperlanus	22-32
Perch	Perca fluviatilis	IIId
Flounder	Platichtys flesus	22-32
Plaice	Pleuronectes platessa	22-32
Turbot	Psetta maxima	22-32
Pike-perch	Sander lucioperca	IIId
Brill	Scophthalmus rhombus	22-32
Sole	Solea solea	22
Sprat	Sprattus sprattus	22-32
	North Sea and Eastern Channel — ICES areas IV, VIId	
Sand eel	Ammodytidae	IV
Catfish Anarhichas spp.		IV
Argentine Argentina spp.		IV
Red gumard Aspitrigla cuculus		IIIa, IV
Tusk Brosme brosme		IV, IIIa
Herring	Herring Clupea harengus	
Common Shrimp	Crangon crangon	IV, VIId
Sea bass	Dicentrarchus labrax	IV, VIId
Grey gurnard	Eutrigla gurnardus	IV
Cod	Gadus morhua	IV, VIId, IIIa
Witch flounder	Glyptocephalus cynoglossus	IV
Blue-mouth rockfish	Helicolenus dactylopterus	IV
Four-spot megrim	Lepidorhombus boscii	IV, VIId
Megrim	Lepidorhombus whiffiagonis	IV, VIId
Dab	Dab Limanda limanda	

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Black-bellied angler	Lophius budegassa	IV, VIId
Anglerfish	Lophius piscatorius	IIIa, IV, VI
Roughhead grenadier	Macrourus berglax	IV, IIIa
Haddock	Melanogrammus aeglefinus	IV, IIIa
Whiting	Merlangius merlangus	IV, VIId
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV
Lemon sole	Microstomus kitt	IV, VIId
Blue ling	Molva dypterygia	IV, IIIa
Ling	Molva molva	IV, IIIa
Red mullet	Mullus barbatus	IV, VIId
Striped red mullet	Mullus surmuletus	IV, VIId
Norway lobster	Nephrops norvegicus	all functional units
Northern shrimp	Pandalus borealis	IIIa, IVa East/IVa/IV
Common scallop	Pecten maximus	VIId
Greater Forkbeard	Phycis blennoides	IV
Forkbeard	Phycis phycis	IV
Flounder	Platichthys flesus	IV
Plaice	Pleuronectes platessa	IV
Plaice	Pleuronectes platessa	VIId
Saithe	Pollachius virens	IV, IIIa, VI
Turbot	Psetta maxima	IV, VIId
Greenland halibut	Reinhardtius hippoglossoides	IV
Mackerel	Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX
Brill	Scophthalmus rhombus	IV, VIId
Redfish	Sebastes mentella.	IV

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Sole	Solea solea	IV VIId	
Sole	Solea solea		
Sprat Sprattus sprattus		IV/VIIde	
Horse mackerel	Trachurus trachurus.	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIa-e/IIIa, IVbc, VIId	
Tub gurnard	Trigla lucerna	IV	
Norway pout	Trisopterus esmarki	IV, IIIa	
John Dory	Zeus faber	IV, VIId	
	North East Atlantic and Western Channel — ICES areas V, VI, VII (excluding d), VIII, IX, X, XII, XIV		
Smoothhead	Alepocephalus bairdii	VI, XII	
Sand eel	Ammodytidae	Via	
Boarfish	Capros aper	V, VI,VII	
Scallop	Pecten maximus	IV, VI, VII	
Queen scallop	Aequipecten opercularis	VII	
Spider crab	Maja squinado	V, VI,VII	
Scabbardfish	Aphanopus spp.	all areas	
Argentine	Argentina spp.	all areas	
Meagre	Argyrosomus regius	all areas	
Red gurnard	Aspitrigla cuculus	all areas	
Alfonsinos	Beryx spp.	all areas, excluding X and IXa	
Alfonsinos	Beryx spp.	IXa and X	
Edible crab	Cancer pagurus	all areas	
		VIa/VIaN/	
Herring	Herring Clupea harengus		
Conger	Conger conger	all areas, excluding X	
Conger	Conger conger	X	
Roundnose grenadier	Corenhagnoides rungstris		
Kitefin shark Dalatias licha		All areas	

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Common stingray	Dasyatis pastinaca	VII, VIII	
Birdbeak dogfish	Deania calcea	V, VI, VII, IX, X, XII	Formatted: Italian (Italy)
Sea bass	Dicentrarchus labrax	all areas, excluding IX	
Sea bass	Dicentrarchus labrax	IX	
Wedge sole	Dicologoglosa cuneata	VIIIc, IX	
Anchovy	Engraulis encrasicolus	IXa (only Cádiz)	
Anchovy	Engraulis encrasicolus	VIII	
Velvet belly	Etmopterus spinax	VI, VII, VIII	
Grey gurnard	Eutrigla gurnardus	VIId,e	
Cod	Gadus morhua	Va/Vb/VIa/VIb/VIIa/VIIe-k	
Witch	Glyptocephalus cynoglossus	VI, VII	
Bluemouth rockfish	Helicolenus dactylopterus	all areas	
Lobster	Homarus gammarus	all areas	
Orange roughy	Hoplostethus atlanticus	all areas	
Silver scarbbardfish	Lepidopus caudatus	IXa	
Four-spot megrim	Lepidorhombus boscii	VIIIc, IXa	
Megrim	Lepidorhombus whiffiagonis	VI/VII, VIIIabd/VIIIc, IXa	
Dab	Limanda limanda	VIIe/VIIa,f-h	
Common squid	Loligo vulgaris	all areas, excluding VIIIc,	
Common squid	Loligo vulgaris	VIIIc, IXa	
Black-bellied angler	Lophius budegassa	IV, VI/VIIb-k, VIIIabd	Formatted: Italian (Italy)
Black-bellied angler	Lophius budegassa	VIIIc, IXa	
Anglerfish	Lophius piscatorious	IV, VI/VIIb-k, VIIIabd	Formatted: Italian (Italy)

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Anglerfish	Lophius piscatorious	VIIIc, IXa
Capelin	Mallotus villosus	XIV
Haddock	Haddock Melanogrammus aeglefinus	
Haddock	Melanogrammus aeglefinus	VIa/VIb/VIIa/VIIb-k
Whiting	Merlangius merlangus	VIII/IX, X
Whiting	Merlangius merlangus	Vb/VIa/VIb/VIIa/VIIe-k
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab/VIIIc, Ixa
Wedge sole	Microchirus variegatus	all areas
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV
Lemon sole	Microstomus kitt	all areas
Blue ling	Molva dypterygia	all areas, excluding X
Spanish ling Molva macrophhtalma		x
Ling	Ling Molva molva	
Striped red mullet	Striped red mullet Mullus surmuletus	
Starry smooth- hound Mustelus asterias		VI, VII, VIII, IX
Smooth-hound	Smooth-hound Mustelus mustelus	
Blackspotted smooth-hound	Mustelus punctulatus	VI, VII, VIII, IX
Norway lobster	Nephrops norvegicus	VI Fuctional unit
Norway lobster	Nephrops norvegicus	VII Functional unit
Norway lobster Nephrops norvegicus		VIII, IX Functional unit
Common octopus Octopus vulgaris		all areas, excluding VIIIc, IXa
Common octopus	Octopus vulgaris	VIIIc, IXa
Sea bream	Sea bream Pagellus bogaraveo	
Pandalid shrimps Pandalus spp.		all areas

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White shrimp	Parapenaeus longirostris	IXa
Greater Forkbeard	Phycis blennoides	all areas
Forkbeard	Phycis phycis	all areas
Plaice	Pleuronectes platessa	VIIa/VIIe/VIIfg
Plaice	Pleuronectes platessa	VIIbc/VIIh-k/VIII, IX, X
Pollack	Pollachius pollachius	all areas except IX, X
Pollack	Pollachius pollachius	IX, X
Saithe	Pollachius virens	Va/Vb/IV, IIIa, VI
Saithe	Pollachius virens	VII, VIII
Wreckfish	Polyprion americanus	X
Turbot	Psetta maxima	all areas
Greenland halibut	Reinhardtius hippoglossoides	V, XIV/VI
Atlantic halibut	Hypoglossus hypoglossus	V, XIV
Sardine	Sardina pilchardus	VIIIabd/VIIIc, IXa
Spanish mackerel	Scomber colias	VIII, IX, X
Mackerel	Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX
Brill	Scophthalmus rhombus	all areas
Golden Redfish	Sebastes norvegicus	ICES Sub areas V, VI, XII, XIV & NAFO SA 2 + (Div. 1F + 3K).
Deep sea Redfish	Sebastes mentella	ICES Sub areas V, VI, XII, XIV & NAFO SA 2 + (Div. 1F + 3K)
Cuttlefish	Sepia officinalis	all areas
Sole	Solea solea	VIIa/VIIfg
Sole	Solea solea	VIIbc/VIIhjk/IXa/VIIIc

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Sole	Solea solea	VIIe
Sole	Solea solea	VIIIab
Sea breams (in plural)	Sparidae	all areas
Mediterranean horse mackerel	Trachurus mediterraneus	VIII, IX
Blue jack mackerel	Trachurus picturatus	VIII, IX, X
Horse mackerel	Trachurus trachurus	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIa-e/X
Horse mackerel	Trachurus trachurus	IXa
Pouting	Trisopterus spp.	all areas
John Dory	Zeus faber	all areas
	Mediterranean Sea and Blac	k Sea
Common name	Latin name	FAO Divisions
Giant red shrimp	Aristeomorpha foliacea	1.3, 2.2
Red shrimp	Aristeus antennatus	1.1, 1.3
Bogue	Boops boops	1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Dolphinfish	Coryphaena equiselis	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Dolphinfish	Coryphaena hippurus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Sea bass	Dicentrarchus labrax	2.1,
Horned octopus	Eledone cirrosa	1.1, 1.3, 2.1, 2.2, 3.1
Musky octopus	Eledone moschata	1.3, 2.1, 2.2, 3.1
Anchovy	Engraulis encrasicolus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2, 4.2
Grey gurnard	Eutrigla gurnardus	2.2, 3.1
Squid	Illex spp., Todarodes spp.	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Billfish	Istiophoridae	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Common squid	Loligo vulgaris	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Black-bellied angler	Lophius budegassa	1.1, 1.2, 1.3, 2.2, 3.1
Anglerfish	Lophius piscatorius	1.1, 1.2, 1.3, 2.2, 3.1
Hake	Merluccius merluccius	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2

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Blue whiting	Micromesistius poutassou	1.1, 3.1
Grey mullets	Mugilidae	1.3, 2.1, 2.2, 3.1,4.2
Red mullet	Mullus barbatus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2, 4.2
Striped red mullet	Mullus surmuletus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Norway lobster	Nephrops norvegicus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1
Common octopus	Octopus vulgaris	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Pandora	Pagellus erythrinus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
White shrimp	Parapenaeus longirostris	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Caramote prawn	Penaeus kerathurus	3.1
Turbot	Psetta maxima	4.2
Sardine	Sardina pilchardus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Mackerel	Scomber spp.	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Cuttlefish	Sepia officinalis	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2
Sole	Solea vulgaris	2.1
Gilthead sea bream	Sparus aurata	1.2, 3.1
Picarels	Spicara smaris	2.1, 3.1, 3.2
Sprat	Sprattus sprattus	4.2
Mantis shrimp	Squilla mantis	2.1
Mediterranean horse mackerel	Trachurus mediterraneus	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2, 4.2
Horse mackerel	Trachurus trachurus	1.1, 1.2, 1.3, 2.2, 3.1, 3.2
Tub gurnard	Trigla lucerna	1.3, 2.2, 3.1
Clam	Chamelea gallina	2.1, 2.2,4.2
Swordfish	Xiphias gladius	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2

Table 1B [former Appendix VII]

List of \underline{b} iological variables defined by stocks in sea basins of Outermost Regions of the Union

French Guyana:	
Red snapper	Lutjanus purpureus
Southern brown shrimp	Farfantepenaeus subtilis
Pink spotted shrimp	Farfantepenaeus brasiliensis
Acoupa weakfish	Cynoscion acoupa
Smalltooth weakfish	Cynoscion steindachneri
Green weakfish	Cynoscion virescens
Gillbacker sea catfish	Arius parkeri
Cruxifix sea catfish	Arius proos
Other Sea catfishes	Ariidae
Tripletail	Lobotes surinamensis
Common snooks	Centropomus undecimalis
Groupers	Serranidae
Guadeloupe and Martinique:	
Southern red snapper	Lutjanus purpureus
Lion fish*	Pterois volitans
Black fin tuna	Thunnus atlanticus
Yellowfin tuna	Thunnus albacares
Other tuna-like fish	Scombridae
Blue marlin	Makaira nigricans
Dolphinfish	Coryphaena hippurus
* Invasive species to be recorded in all la	andings and catches but no biological sampling required.
Reunion Island and Mayotte	
Tuna-like fish	Scombridae
Swordfish	Xiphias gladius
Other bill fishes	Istiophoridae
<u>Dolphinfish</u>	Coryphaena hippurus

Comment [A4]: Too undefined. Main targeted species are *Arius parkeri* (Gillbacker sea catfish – Machoiron jaune) and *Arius proos* (Cruxifix sea catfish – Machoiron blanc).

Comment [A5]: Really the main target species of the Centropomidae familly.

Comment [A6]: *Epinephelus itajarra* is the main species targeted by fishermen. To be more defined?

Comment [A7]: Invasive species. Only to be registered in the catch or landings, without length or biological sampling

Comment [A8]: Be more precise. Two species *Thunnus atlanticus* (black fin tuna – thon noir) and *Thunnus atlacares* (yellowfin tuna –thon albacore) to be included in the list of mandatory species.

Comment [A9]: Main LPF species target species in Antilles area. Must be clearly listed as mandatory species (end user ICCAT)

Comment [A10]: Swordfish (*Xiphias gladius*) is the only target species. Must be listed such as.

Azores, Madeira and Canary Islands:

Atlantic chub mackerel	Scomber colias
Sardinella	Sardinella maderensis
Horse mackerel	Trachurus spp.
Sardine	Sardina pilchardus
Parrotfish	Sparisoma cretense
Limpets	Patellidae



<u>**Table 1C**</u> [former Appendix VII]

List of Biological variables defined by stocks in sea basins under RFMOs and SFPAs

IATTC

When desig Commission	Frequency of Collection of Biological variables:			
Scientific name	Common name	Geographical Area	Priority	
Thunnus albacares	Yellowfin tuna	East Pacific Ocean	High	
Thunnus obesus	Bigeye tuna	East Pacific Ocean	High	The data collection is
Katsuwonus pelamis	Skipjack tuna	East Pacific Ocean	High	annual and the updating/processing of the data must be done
Thunnus alalunga	Albacore tuna	East Pacific Ocean	High	timely to fit the schedule of the stock assessments.
Thunnus orientalis	Pacific bluefin tuna	East Pacific Ocean	High	
Xiphias gladius	Swordfish	East Pacific Ocean	High	
Makaira nigricans (or mazara)	Blue marlin	East Pacific Ocean	High	
Makaira indica	Black marlin	East Pacific Ocean	High	
Tetrapturus audax	Striped marlin	East Pacific Ocean	High	

ICCAT

When designing sam this Commission dee taken int	Frequency of Collection of Biological variables:					
Scientific name	Common name	Geographical Area	Priority			
Thunnus albacares	Yellowfin tuna					
Thunnus obesus						
Katsuwonus pelamis	The date collection is commol					
Thunnus alalunga	Albacore tuna	Atlantic Ocean an adjacent seas	High	The data collection is annu- and the updating/processing		

Thunnus thynnus	Bluefin tuna	Atlantic Ocean an adjacent seas	High	of the da
Xiphias gladius	Swordfish	Atlantic Ocean an adjacent seas	High	the stock a
Makaira nigricans (or mazara)	Blue marlin	Atlantic Ocean an adjacent seas	High	
Istiophorus albicans	Sailfish	Atlantic Ocean an adjacent seas	High	
Tetrapturus albidus	White marlin	Atlantic Ocean an adjacent seas	High	
Prionace glauca	Blue shark	Atlantic Ocean an adjacent seas	High	
Auxis rochei	Bullet tuna	Atlantic Ocean an adjacent seas	High	
Sarda sarda	Atlantic bonito	Atlantic Ocean an adjacent seas	High	
Euthynnus alleteratus	Atlantic back skipjack	Atlantic Ocean an adjacent seas	Medium	
Thunnus atlanticus	Blackfin tuna	Atlantic Ocean an adjacent seas	Medium	
Orcynopsis unicolor	Plain bonito	Atlantic Ocean an adjacent seas	Medium	
Scomberomorus brasiliensis	Serra Spanish mackerel	Atlantic Ocean an adjacent seas	Medium	
Scomberomorus regalis	Cero	Atlantic Ocean an adjacent seas	Medium	
Auxis thazard	Frigate tuna	Atlantic Ocean an adjacent seas	Medium	
Scomberomorus cavalla	King mackerel	Atlantic Ocean an adjacent seas	Medium	
Scomberomorus tritor	West African Spanish mackerel	Atlantic Ocean an adjacent seas	Medium	
Scomberomorus maculatus	Atlantic Spanish mackerel	Atlantic Ocean an adjacent seas	Medium	
Acanthocybium solandri	Wahoo	Atlantic Ocean an adjacent seas	Medium	
Coryphaena hippurus	Dolphinfish	Atlantic Ocean an adjacent seas	Medium	

of the data must be done timely to fit the schedule of the stock assessments.

NAFO

When designing sampl this Commission decis taken into	Frequency of Collection of Biological variables:			
Scientific name	Common name	Stocks as defined by the RFMO	Priority	
Gadus morhua	Cod	NAFO 2J 3KL	Low	
Gadus morhua				
Gadus morhua	Cod	NAFO 3NO	High	The date collection is arrange
Gadus morhua	Cod	NAFO 3Ps	High	The data collection is annual and the updating/processing

Gadus morhua	Cod	NAFO SA1	High	of the data must be done timely to fit the schedule of
Glyptocephalus cynoglossus	Witch flounder	NAFO 3NO	High	the stock assessments.
Glyptocephalus cynoglossus	Witch flounder	NAFO 2J3KL	Low	
Hippoglossoides platessoides	American plaice	NAFO 3LNO	High	
Hippoglossoides platessoides	American plaice	NAFO 3M	High	
Limanda ferruginea	Yellowtail flounder	NAFO 3LNO	Medium	
Coryphaenoides rupestris	Roundnose Grenadier	NAFO SA0+1	Low	
Macrourus berglax	Roughhead grenadier	NAFO SA2+3	High	
Pandalus borealis	Northern shrimp	NAFO 3LNO	High	
Pandalus borealis	Northern shrimp	NAFO 3M	High	
Amblyraja radiata	Thorny skate	NAFO 3LNOPs	High	
Reinhardtius hippoglossoides	Greenland halibut	NAFO 3KLMNO	High	
Reinhardtius hippoglossoides	Greenland halibut	NAFO SA1	High	
Hypoglossus hippoglossuss	Atlantic halibut	NAFO SA1	Low	
Sebastes mentella	Redfish	NAFO SA1	High	
Sebastes spp.	Redfish	NAFO 3LN	High	
Sebastes spp.	Redfish	NAFO 3M	High	
Sebastes spp.	Redfish	NAFO 3O	High	
Urophycis tenuis	White hake	NAFO 3NO	High	
Mallotus villosus	Capelin	NAFO 3NO	High	
Beryx sp.	Alfonsinos	NAFO 6G	High	
Illex illecebrosus	Shortfin squid	NAFO Subareas 3+4	Low	
Salmo salar	Salmon	NAFO S1+ ICES Sub-area XIV, NEAF, NASCO	High	

FAO marine area 34 (CECAF)

SPECIES Frequency of

When designing sampling plans aiming at collecting biological information as laid down in chapter III of this Commission decision, stock boundaries, as fixed by the competent RFMOs of RFOs, will have to be taken into account and appropriate sampling effort will be allocate to each stock.					
Scientific name	Common name	Geographical Area	Priority		
Brachydeuterus spp.	Grunt	34.1.3. , 34.3.1. , 34.3.3-6.	high		
Caranx spp.	Jack	34.3.1. , 34.3.3-6.	high		
Cynoglossus spp.	Tongue sole	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high		
Decapterus spp.	Scad	34.3.1. , 34.3.3-6.	high		
Dentex canariensis	Canary dentex	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	medium	The data collection is annual and the updating/processing	
Dentex congoensis	Congo dentex	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	medium	of the data must be done timely to fit the schedule of the	
Dentex macrophthalmus	Large-eye dentex	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	high	stock assessments.	
Dentex maroccanus	Morocco dentex	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	medium		
Dentex spp.	Dentex	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high		
Engraulis encrasicolus	Anchovy	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high		
Epinephelus aeneus	White grouper	34.1.3. , 34.3.1. , 34.3.3-6.	high		
Ethmalosa fimbriata	Bonga shad	34.3.1. , 34.3.3-6.	high		
Farfantepenaeus notialis	Southern pink shrimp	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high		
Galeoides decadactylus	Lesser African threadfin	34.1.3. , 34.3.1. , 34.3.3-6.	high		
Loligo vulgaris	Common squid	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high		
Merluccius polli	Black hake	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high		
Merluccius senegalensis	Black hake	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	The data collection is annual and the updating/processing	
Merluccius spp.	Other hake	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	medium	of the data must be done timely to fit the schedule of the	
Octopus vulgaris	Common octopus	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	stock assessments.	
Pagellus acarne	Red pandora	34.1.1.	high		
Pagellus bellottii	Red pandora	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high		

Pagellus bogaraveo	Blackspot seabream	34.1.1.	medium	
Pagellus spp.	Pandora	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Pagrus caeruleostictus	Blue spotted seabream	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	high	
Parapenaeus longirostris	Deepwater rose shrimp	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	high	
Pomadasys incisus	Bastard grunt	34.1.1.	medium	
Pomadasys spp.	Grunt	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Pseudotolithus spp.	West African croakers	34.1.1.	high	
Sardina pilchardus	Sardine	34.1.1. , 34.1.3.	high	
Sardinella aurita	Round sardinella	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Sardinella maderensis	Short-body sardinella	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Scomber japonicus	Chub mackerel	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Scomber spp.	Other Mackerel	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Sepia hierredda	Cuttlefish	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	high	
Sepia officinalis	Common cuttlefish	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	high	The data collection is annual and the
Sepia spp.	cuttlefishes	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	medium	updating/processing of the data must be done timely to fit the schedule of the
Sparidae	Seabream	34.1.1., 34.1.3., 34.3.1., 34.3.3-6.	high	stock assessments.
Sparus spp.	Seabream	34.1.1.	high	
Trachurus trachurus	Atlantic horse mackerel	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Trachurus trecae	Cunene horse mackerel	34.1.1. , 34.1.3. , 34.3.1. , 34.3.3-6.	high	
Umbrina canariensis	Canary drum	34.3.3-6.	medium	

SEAFO

When designing Commission decis	Frequency of Collection of Biological variables:					
Scientific name	Scientific name Common Geographical Area Priority					
Dissostichus eleginoides	Patagonian toothfish	Patagonian toothfish South East Atlantic High take place a few mo per year or these		Convention Area only take place a few months per year or these are		
Beryx spp.	Alfonsinos	South East Atlantic	High	sporadic (a few experimental set/haul).		

Chaceon spp.	Red/Golden crabs	South East Atlantic	High	Biological data collection comes from the on-board observer sampling.
Pseudopentaceros richardsoni	Pelagic armourhead / Southern boarfish	South East Atlantic	High	Preliminary guidelines for data collection of the main commercial SEAFO species (SEAFO SC Report 11/2013)
Helicolenus spp.	Blackbelly rosefishes	South East Atlantic	High	The data collection is annual and the updating/processing of
Hoplostethus atlanticus	Orange roughy	South East Atlantic	High	the data must be done timely to fit the schedule of the stock assessments.
Trachurus spp	Horse mackerel	South East Atlantic	High	
Scomber spp	Mackerel	South East Atlantic	High	
Polyprion americanus	Wreckfish	South East Atlantic	Medium	
Jasus tristani	Tristan rock lobster	South East Atlantic	Medium	
Lepidotus caudatus	Silver scabbardfish	South East Atlantic	Medium	
Schedophilus ovalis	Imperial Blackfish	South East Atlantic	Low	
Schedophilus velaini	Violet warehou	South East Atlantic	Low	
Allocyttus verucossus	Oreo dories	South East Atlantic	Low	
Neocyttus romboidales		South East Atlantic		
Allocyttus guineensis		South East Atlantic		
Pseudocyttu smaculatus		South East Atlantic		
Emmelichthys nitidus	Cape Bonnetmouth	South East Atlantic	Low	
Ruvettus pretiosus	Oilfish	South East Atlantic	Low	
Promethichthys prometheus	Roudi escolar	South East Atlantic	Low	
Macrourus spp.	Grenadiers	South East Atlantic	Low	
Antimora rostrata	Blue antimora	South East Atlantic	Low	
Epigonus spp	Cardinal fish	South East Atlantic	Low	
Merluccius spp	Hake	South East Atlantic	Low	
Notopogon fernandezianus	Orange bellowfish	South East Atlantic	Low	

Octopodidae and Loliginidae	Octopus and squids South East Atlantic	Low	
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WCPFC

this Commission deci	sion, stock boundar	SPECIES collecting biological information as laid down ies, as fixed by the competent RFMOs of RFOs priate sampling effort will be allocate to each s	s, will have to be	Frequency of Collection of Biological variables:
Scientific name	Common name	Geographical Area	Priority	
Thunnus albacares	Yellowfin tuna	West Central Pacific Ocean	High	
Thunnus obesus	Bigeye tuna	West Central Pacific Ocean	High	
Katsuwonus pelamis	Skipjack tuna	West Central Pacific Ocean	High	The data collection is annual
Thunnus alalunga	Albacore tuna	West Central Pacific Ocean	High	The data collection is annual and the updating/processing of the data must be done
Thunnus orientalis	Pacific bluefin tuna	West Central Pacific Ocean	High	timely to fit the schedule of the stock assessments.
Xiphias gladius	Swordfish	West Central Pacific Ocean	High	
Makaira nigricans (or mazara)	Blue marlin	West Central Pacific Ocean	High	
Makaira indica	Black marlin	West Central Pacific Ocean	High	
Tetrapturus audax	Striped marlin	West Central Pacific Ocean	High	
Acanthocybium solandri	Wahoo	West Central Pacific Ocean	Medium	
Coryphaena hippurus	Dolphinfish	West Central Pacific Ocean	Medium	
Elagatis bipinnulata	Raibow runner	West Central Pacific Ocean	Medium	
Lepidocybium flavobrunneum	Escolar	West Central Pacific Ocean	Medium	
Lampris regius	Moonfish (opah)	West Central Pacific Ocean	Medium	
Mola mola	Sunfish	West Central Pacific Ocean	Medium	
Istiophorus platypterus	Sailfish	West Central Pacific Ocean	Medium	
Tetrapturus angustirostris	Spearfish	West Central Pacific Ocean	Medium	
Ruvettus pretiosus	Oilfish	West Central Pacific Ocean	Medium	
Prionace glauca	Blue shark	West Central Pacific Ocean	High	
Carcharhinus longimanus	Oceanic whitetip shark	West Central Pacific Ocean	High	
Carcharhinus falciformis	Silky shark	West Central Pacific Ocean	High	
Alopias superciliosus	big eye thresher	West Central Pacific Ocean	High	

Alopias vulpinus	Common thresher	West Central Pacific Ocean	High
Alopias pelagicus	Pelagic thresher	West Central Pacific Ocean	High

NB: for WCPF the following reporting requirements for $\underline{\text{Long liners}}$ should be added to the relevant appendices of the DCF (Appendix VIII of 2010/93/EU):

- 1) Number of branch lines between floats. The number of branch lines between floats should be reported for each set.
- 2) Number of fish caught per set, for the following species: albacore (Thumus alalunga), bigeye (Thumus obesus), skipjack (Katsuwonus pelamis), yellowfin (Thumus albacares), striped marlin (Tetrapturus audax), blue marlin (Makaira mazara), black marlin (Makaira indica) and swordfish (Xiphias gladius), blue shark, silky shark, oceanic whitetip shark, mako sharks, thresher sharks, porbeagle shark (south of 20°S, until biological data shows this or another geographic limit to be appropriate), hammerhead sharks (winghead, scalloped, great, and smooth), whale shark, and other species as determined by the Commission.

If the total weight or average weight of fish caught per set has been recorded, then the total weight or average weight of fish caught per set, by species, should also be reported. If the total weight or average weight of fish caught per set has not been recorded, then the total weight or average weight of fish caught per set, by species, should be estimated and the estimates reported. The total weight or average weight shall refer to whole weights, rather than processed weights.

WECAFC

When designin Commission de	Frequency of Collection of Biological variables:			
Scientific name	Common name	Geographical Area	Priority	
Panulirus argus	Caribbean Spiny Lobster	West Central Atlantic	High	
Strombus gigas	Queen Conch	West Central Atlantic	High	The data collection is annual and the
Shark-like Selachii, Rajidae	Sharks, rays & skates	West Central Atlantic	High	updating/processing of the data must be done timely to fit the schedule of the stock assessments.
Coryphaena hippurus	Dolphin fish	West Central Atlantic	High	
Acanthocybium solandri	Wahoo	West Central Atlantic	High	
Epinephelus guttatus	Red Hind	West Central Atlantic	High	
Lutjanus vivanus	Silk snapper	West Central Atlantic	High	
Lutjanus buccanella	Blackfin snapper	West Central Atlantic	High	
Lutjanus campechanus	Red snapper	West Central Atlantic	High	
Penaeus subtilis	Penaeus shrimp	French Guiana EEZ	High	

IOTC

When designing sam this Commission de taken int	Frequency of Collection of Biological variables:			
Scientific name	Common name	Geographical Area	Priority	
Thunnus albacares	Yellowfin tuna	Indian Ocean Western and Eastern	High	
Thunnus obesus	Bigeye tuna	Indian Ocean Western and Eastern	High	
Katsuwonus pelamis	Skipjack tuna	Indian Ocean Western and Eastern	High	
Thunnus alalunga	Albacore tuna	Indian Ocean Western and Eastern	High	The data collection is annual and the updating/processing of the data must be done
Xiphias gladius	Swordfish	Indian Ocean Western and Eastern	High	timely to fit the schedule of the stock assessments.
Makaira nigricans (or mazara)	Blue marlin	Indian Ocean Western and Eastern	High	
Makaira indica	Black marlin	Indian Ocean Western and Eastern	High	
Tetrapturus audax	Striped marlin	Indian Ocean Western and Eastern	High	
Istiophorus platypterus	Indo-Pacific sailfish	Indian Ocean Western and Eastern	High	
Auxis rochei	Bullet tuna	Indian Ocean Western and Eastern	Medium	
Auxis thazard	Frigate tuna	Indian Ocean Western and Eastern	Medium	
Euthynnus affinis	Kawakawa	Indian Ocean Western and Eastern	Medium	
Thunnus tonggol	Longtail tuna	Indian Ocean Western and Eastern	Medium	
Scomberomorus guttatus	Indo-Pacific king mackerel	Indian Ocean Western and Eastern	Medium	
Scomberomorus commerson	Narrow-barred Spanish mackerel	Indian Ocean Western and Eastern	Medium	
Prionace glauca	Blue shark	Indian Ocean Western and Eastern	High	
Alopias superciliosus	Bigeye thresher shark	Indian Ocean Western and Eastern	High	
Carcharhinus falciformes	Silky shark	Indian Ocean Western and Eastern	High	
Carcharhinus longimanus	Oceanic whitetip shark	Indian Ocean Western and Eastern	High	
Alopias pelagicus	Pelagic thresher shark	Indian Ocean Western and Eastern	High	
Sphyrna lewini	Scalloped hammerhead shark	Indian Ocean Western and Eastern	High	

Other RFMOs

When designing Commission decis	Frequency of Collection of Biological variables:				
Scientific name	Common name	Geographical Area	Priority		
Trachurus murphyi	Jack mackerel	SPRFMO Convention Area	High		
Euphausia superba	Krill	CCAMLR Convention Area	High	The data collection is	
Dissostichus spp. Dissostichus eleginoidis and Dissostichus mawsoni)	Toothfish	CCAMLR Convention Area	High	annual and the updating/processing of the data must be done timely to fit the schedule of the stock assessments.	
Champsocephalus gunnari	Mackerel icefish	CCAMLR Convention Area	Low		
Resources of fish, molluscs, crustaceans and other sedentary species within the competence area, but excluding: i) sedentary species subject to the fishery jurisdiction of coastal States pursuant to article 77(4) of the 1982 UN Convention on the Law of the Sea, and; ii) highly migratory species listed in Annex I of the 1982 UN Convention on the Law of the Sea.		SIOFA Convention Area			

Table 1D [NEW]

List of species to be monitored because of species protection programmes in the EU or under international obligations (chapter II (1) (b) (i)

Common name	Scientific name	Region / RFMO	Obligation type
Bony fishes	Teleostei		
Sturgeons	Acipenser spp.	Mediterranean Sea and Black Sea	Annex II of the Barcelona Convention, Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Smoothheads (Slickheads)	Alepocephalidae	All Regions	Deep sea Regulation
Baird's smoothhead	Alepocephalus Bairdii	All Regions	Deep sea Regulation
Risso's smoothhead	Alepocephalus rostratus	All Regions	Deep sea Regulation
Pontic shad	Alosa immaculata	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Black Sea shad	Alosa tanaica	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
European eel	Anguilla anguilla	All Regions	<mark>???</mark>
Blue antimora (Blue hake)	Antimora rostrata	All Regions	Deep sea Regulation
Black scabbardfish	Aphanopus carbo	All Regions	Deep sea Regulation
Scabbardfish	Aphanopus intermedius	All Regions	Deep sea Regulation
Crayfish	Astacus spp.	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Big-scale sand smelt	Atherina pontica	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Common pochard	Aythya ferina	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Greater scaup	Aythya marila	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Garfish	Belone belone euxini Günther	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Alfonsinos	Beryx spp.	All Regions	Deep sea Regulation
	Cataetyx laticeps	All Regions	Deep sea Regulation
Vendance	Coregonus albula	Baltic Sea	RCM Baltic recommendation
lumpfish	Cyclopterus lumpus	All Regions	Deep sea Regulation
Annular sea-bream	Diplodus annularis	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Sharpsnout sea-bream	Diplodus puntazzo	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)

White sea-bream	Diplodus sargus	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Two-banded sea-bream	Diplodus vulgaris	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Patagonian toothfish	Dissostichus eleginoides	All Regions	Deep sea Regulation
Antarctic toothfish	Dissostichus mawsoni	All Regions	Deep sea Regulation
Groupers	Ephinephelus spp.	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Black cardinalfish	Epigonus telescopus	All Regions	Vulnerable species Deep sea Regulation
Gobies	Gobiidae	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Bluemouth (Bluemouth redfish)	Helicolenus dactilopterus	All Regions	Deep sea Regulation
Atlantic halibut	Hippoglossus hippoglossus	All Regions	Deep sea Regulation
Orange roughy	Hoplostethus atlanticus	All Regions	Vulnerable species Deep sea Regulation
Silver roughy (Pink)	Hoplosthetus mediterraneus	All Regions	Deep sea Regulation
Silver scabbard fish (Cutless fish)	Lepidopus caudatus	All Regions	Deep sea Regulation
Stripped sea-bream	Lithognathus mormyrus	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Golden grey mullet	Liza aurata	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Leaping mullet	Liza saliens	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Greater Eelpout	Lycodes esmarkii	All Regions	Deep sea Regulation
Grenadiers (rattails) other than roundnose grenadier and roughhead grenadier	Macrouridaeother than Coryphaenoides rupestris and Macrourus berglax	All Regions	Deep sea Regulation
Roughhead grenadier (Rough rattail)	Macrourus berglax	All Regions	Deep sea Regulation
Whiting	Merlangius merlangus	Baltic Sea	RCM Baltic recommendation
Whiting	Merlangius merlangus	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Blue ling	Molva dypterigia	All Regions	Deep sea Regulation
Common mora	Mora moro	All Regions	Deep sea Regulation
Mullet	Mugil spp.	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Black gemfish	Nesiarchus nasutus	All Regions	Deep sea Regulation
Snubnosed spiny eel	Notocanthus chemnitzii	All Regions	Deep sea Regulation
Smelt	Osmerus eperlanus	Baltic Sea	RCM Baltic recommendation
Spanish sea-bream	Pagellus acarne	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Red sea-bream	Pagellus bogaraveo	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)

			Mediterranean Regulation
Common sea-bream	Pagrus pagrus	Mediterranean Sea	1976/2006 (min. cons. size)
Wreckfish	Polyprion americanus	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Wreckfish	Polyprion americanus	All Regions	Deep sea Regulation
Bluefish	Pomatomus saltatrix	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Atlantic chub mackerel	Scomber colias Gmelin	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Small redfish (Norway redfish)	Sebastes viviparus	All Regions	Deep sea Regulation
Spiny (deep sea) scorpionfish	Trachyscorpia cristulata	All Regions	Deep sea Regulation
Cartilaginous fishes	Chondrichthyes		
Narrow sawfish	Anoxypristis cuspidate	All oceans	RFMOs , High priority
Birdbeak dogfish	Deania calcea	All oceans	RFMOs , High priority
smooth lanternshark	Etmopterus pusillus	All oceans	RFMOs , High priority
Dwarf sawfish	Pristis clavata	All oceans	RFMOs , High priority
Green sawfish	Pristis zijsron	All oceans	RFMOs , High priority
Norwegian skate	Raja (Dipturus) nidarosiensis	All oceans	RFMOs , High priority
Thornback ray	Raja clavata	All oceans	RFMOs , High priority
Undulate ray	Raja undulata	All oceans	RFMOs , High priority
Pelagic Thresher	Alopias pelagicus	All oceans	RFMOs , High priority
Big Eye Thresher	Alopias superciliosus	All oceans	RFMOs , High priority
Common Thresher	Alopias vulpinus	All oceans	RFMOs , High priority
Starry ray	Amblyraja radiata	All oceans	RFMOs , High priority
Iceland catshark	Apristurus spp	All oceans	RFMOs , High priority, Vulnerable species Deep sea Regulation
Silky shark	Carcharhinus falciformis	All oceans	RFMOs , High priority
Galapagos shark	Carcharhinus galapagensis	All oceans	RFMOs , High priority
Oceanic whitetip shark	Carcharhinus longimanus	All oceans	RFMOs , High priority
Sandbar shark	Carcharhinus plumbeus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Sand tiger shark	Carcharias taurus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Great white shark	Carcharodon carcharias	All oceans	RFMOs , High priority
Gulper shark	Centrophorus granulosus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex III
Gulper shark species	Centrophorus spp	All Regions	Deep sea Regulation

Leafscale gulper shark	Centrophorus squamosus	All oceans	RFMOs , High priority
Black dogfish	Centroscyllium fabricii	All oceans	RFMOs , High priority, Deep sea Regulation
Portuguese dogfish	Centroscymnus coelolepis	All oceans	RFMOs , High priority, Deep sea Regulation
Longnose velvet dogfish	Centroscymnus crepidater	All oceans	RFMOs , High priority, Vulnerable species Deep sea Regulation
Basking shark	Cetorhinus maximus	All oceans	RFMOs , High priority
Rabbit fish (rattail)	Chimaera monstrosa	All Regions	Deep sea Regulation
Frilled shark	Chlamydoselachus anguineus	All oceans	RFMOs , High priority, Vulnerable species Deep sea Regulation
Kitefin shark	Dalatias licha	All oceans	RFMOs , High priority, Vulnerable species Deep sea Regulation
Stingray	Dasyatis partinaca	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Birdbeak dogfish	Deania calcea	All oceans	RFMOs , High priority, Deep sea Regulation
Common skate	Dipturus batis	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Greater lanternshark	Etmopterus princeps	All oceans	RFMOs , High priority, Vulnerable species Deep sea Regulation
Velvet belly	Etmopterus spinax	All oceans	RFMOs , High priority, Deep sea Regulation
Winghead hammerhead	Eusphyra blochii	All oceans	RFMOs , High priority
school shark, tope shark	Galeorhinus galeus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Blackmouth dogfish	Galeus melastomus	All oceans	RFMOs , High priority, Deep sea Regulation
Mouse catshark	Galeus murinus	All oceans	RFMOs , High priority, Deep sea Regulation
Spiny butterfly ray	Gymnura altavela	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Sharpnose sevengill shark	Heptranchias perlo	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex III
Bluntnose six-gilled shark	Hexanchus griseus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Large-eyed rabbitfish (Ratfish)	Hydrolagus mirabilis	All Regions	Deep sea Regulation
Shortfin mako	Isurus oxyrinchus	All oceans	RFMOs , High priority
Longfin mako	Isurus paucus	All oceans	RFMOs , High priority
Porbeagle	Lamna nasus	All oceans	RFMOs , High priority
Sandy Skate	Leucoraja circularis	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II

Maltese skate	Leucoraja melitensis	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Reef manta ray	Manta alfredi	All oceans	RFMOs , High priority
Giant manta ray	Manta birostris	All oceans	RFMOs , High priority
Longhorned mobula	Mobula eregoodootenkee	All oceans	RFMOs , High priority
Lesser devil ray	Mobula hypostoma	All oceans	RFMOs , High priority
Spinetail mobula	Mobula japanica	All oceans	RFMOs , High priority
Shortfin devil ray	Mobula kuhlii	All oceans	RFMOs , High priority
Devil fish	Mobula mobular	All oceans	RFMOs , High priority
Munk's devil ray	Mobula munkiana	All oceans	RFMOs , High priority
Lesser Guinean devil ray	Mobula rochebrunei	All oceans	RFMOs , High priority
Chilean devil ray	Mobula tarapacana	All oceans	RFMOs , High priority
Smoothtail mobula	Mobula thurstoni	All oceans	RFMOs , High priority
Starry smooth-hound	Mustelus asterias	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex III
Common smooth-hound	Mustelus mustelus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex III
Blackspotted smooth-hound	Mustelus punctulatus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex III
Sailfin roughshark (Sharpback shark)	Oxynotus paradoxus	All oceans	RFMOs , High priority, Vulnerable species Deep sea Regulation
Smalltooth sawfish	Pristis pectinata	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Common sawfish	Pristis pristis	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Crocodile shark	Pseudocarcharias kamoharai	All oceans	RFMOs , High priority
Blue stingray	Pteroplatytrygon violacea	All oceans	RFMOs , High priority
Round skate	Raja fyllae	All Regions	Deep sea Regulation
Arctic skate	Raja hyperborea	All Regions	Deep sea Regulation
Norwegian skate	Raja nidarosiensus	All Regions	Deep sea Regulation
Whale shark	Rhincodon typus	All oceans	RFMOs , High priority
Blackchin guitarfish	Rhinobatos cemiculus	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Common guitarfish	Rhinobatos rhinobatos	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Straightnose rabbitfish	Rhinochimaera atlantica	All Regions	Deep sea Regulation

		All	
Bottlenose skate	Rostroraja alba	oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Knifetooth dogfish	Scymnodon ringens	All oceans	RFMOs , High priority, Deep sea Regulation
Other sharks	Selachimorpha (or Selachii), Batoidea (to be defined by species according to landing, survey or catch data)	All oceans	RFMOs , High priority
Greenland shark	Somniosus microcephalus	All oceans	RFMOs , High priority, Deep sea Regulation
Scalloped hammerhead	Sphyrna lewini	All oceans	RFMOs , High priority
Great hammerhead	Sphyrna mokarran	All oceans	RFMOs , High priority
Smooth hammerhead	Sphyrna zygaena	All oceans	RFMOs , High priority
Spurdog	Squalus acanthias	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex III
Sawback angelshark	Squatina aculeata	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Smoothback angelshark	Squatina oculata	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Angel shark	Squatina squatina	All oceans+Mediterranean and Black Sea	RFMOs , High priority, Barcelona Convention Annex II
Mammals	mammalia		
Minke whale	Balaenoptera acutorostrata	All areas out of Med	-
Minke whale	Balaenoptera acutorostrata	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Sei whale	Balaenoptera borealis	All areas out of Med	-
Sei whale	Balaenoptera borealis	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Fin whale	Balaenoptera physalus	All areas out of Med	-
Fin whale	Balaenoptera physalus	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Short-beaked common dolphin	Delphinus delphis	All areas out of Med	-
Short-beaked common dolphin	Delphinus delphis	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
North Atlantic right whale	Eubalaena glacialis	All areas out of Med	-
North Atlantic right whale	Eubalaena glacialis	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Long-finned pilot whale	Globicephala melas	All areas out of Med	-
Long-finned pilot whale	Globicephala melas	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Risso's dolphin	Grampus griseus	All areas out of Med	-
Risso's dolphin	Grampus griseus	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention

	1	ı	1
Beluga	Huso huso	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Dwarf sperm whale	Kogia simus	All areas out of Med	-
Dwarf sperm whale	Kogia simus	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Kemp's ridley sea turtle	Lepidochelys kempii	Mediterranean Sea	Rec. GFCM/35/2011/4 & Annex II of the Barcelona Convention
Humpback whale	Megaptera novaeangliae	All areas out of Med	-
Humpback whale	Megaptera novaeangliae	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Blainville's beaked whale	Mesoplodon densirostris	All areas out of Med	-
Blainville's beaked whale	Mesoplodon densirostris	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Monk seal	Monachus monachus	Mediterranean Sea	Rec. GFCM/35/2011/5 & Annex II of the Barcelona Convention
Killer whale	Orcinus orca	All areas out of Med	-
Killer whale	Orcinus orca	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Harbour porpoise	Phocoena phocoena	All areas out of Med	-
Harbour porpoise	Phocoena phocoena	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Sperm whale	Physeter macrocephalus	All areas out of Med	-
Sperm whale	Physeter macrocephalus	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
False killer whale	Pseudorca crassidens	All areas out of Med	-
False killer whale	Pseudorca crassidens	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Striped dolphin	Stenella coeruleoalba	All areas out of Med	-
Striped dolphin	Stenella coeruleoalba	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Rough-toothed dolphin	Steno bredanensis	All areas out of Med	-
Rough-toothed dolphin	Steno bredanensis	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Bottlenose dolphin	Tursiops truncatus	All areas out of Med	-
Bottlenose dolphin	Tursiops truncatus	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
Cuvier's beaked whale	Ziphius cavirostris	All areas out of Med	-
Cuvier's beaked whale	Ziphius cavirostris	Mediterranean Sea	Rec. GFCM/36/2012/2 & Annex II of the Barcelona Convention
birds	aves		
Cory's Shearwater	Calonectris diomedea	All areas out of Med	-
Cory's Shearwater	Calonectris diomedea	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention

Eleonora's Falcon	Falco eleonorae	All areas out of Med	_
Eleonora's Falcon	Falco eleonorae	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
European Storm Petrel	Hydrobates pelagicus	All areas out of Med	-
European Storm Petrel	Hydrobates pelagicus	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Audouin's Gull	Larus audouinii	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Slender-billed Curlew	Numenius tenuirostris	All areas out of Med	-
Slender-billed Curlew	Numenius tenuirostris	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Osprey	Pandion haliaetus	All areas out of Med	-
Osprey	Pandion haliaetus	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Dalmatian Pelican	Pelecanus crispus	All areas out of Med	-
Dalmatian Pelican	Pelecanus crispus	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Great White Pelican	Pelecanus onocrotalus	All areas out of Med	-
Great White Pelican	Pelecanus onocrotalus	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Great Cormorant	Phalacracorax carbo	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
European Shag	Phalacrocorax aristotelis	All areas out of Med	-
European Shag	Phalacrocorax aristotelis	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Pygmy Cormorant	Phalacrocorax pygmaeus	All areas out of Med	-
Pygmy Cormorant	Phalacrocorax pygmaeus	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
American Flamingo	Phoenicopterus ruber	All areas out of Med	-
American Flamingo	Phoenicopterus ruber	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Yelkouan Shearwater	Puffinus yelkouan	All areas out of Med	-
Yelkouan Shearwater	Puffinus yelkouan	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Little Tern	Sterna albifrons	All areas out of Med	-
Little Tern	Sterna albifrons	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Lesser Crested Tern	Sterna bengalensis	All areas out of Med	-
Lesser Crested Tern	Sterna bengalensis	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention
Sandwich Tern	Sterna sandvicensis	All areas out of Med	-
Sandwich Tern	Sterna sandvicensis	Mediterranean Sea	Rec. GFCM/35/2011/3 & Annex II of the Barcelona Convention

Reptiles	Reptilia		
Leggerhead turtle	Caretta caretta	Mediterranean Sea	Rec. GFCM/35/2011/4 & Annex II of the Barcelona Convention
Green turtle	Chelonia mydas	All areas out of Med	-
Green turtle	Chelonia mydas	Mediterranean Sea	Rec. GFCM/35/2011/4 & Annex II of the Barcelona Convention
Leatherback turtle	Dermochelys coriacea	All areas out of Med	-
Leatherback turtle	Dermochelys coriacea	Mediterranean Sea	Rec. GFCM/35/2011/4 & Annex II of the Barcelona Convention
Hawksbill sea turtle	Eretmochelys imbricata	All areas out of Med	-
Hawksbill sea turtle	Eretmochelys imbricata	Mediterranean Sea	Rec. GFCM/35/2011/4 & Annex II of the Barcelona Convention
Kemp's ridley sea turtle	Lepidochelys kempii	-	-
Nile soft-shelled turtle	Trionyx triunguis	All areas out of Med	-
Nile soft-shelled turtle	Trionyx triunguis	Mediterranean Sea	Rec. GFCM/35/2011/4 & Annex II of the Barcelona Convention
Molluscs	Mollusca		
Striped venus	Chamellea gallina	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Banded wedge shell	Donacilla cornea	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Eledone especies	Eledone spp.	-	-
Lobster	Homarus gammarus	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
Mediterranean mussel	Mytilus galloprovincialis	All areas out of Med	-
Mediterranean mussel	Mytilus galloprovincialis	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Patella	Patella spp.	All areas out of Med	-
Patella	Patella spp.	Mediterranean Sea	Annex II of the Barcelona Convention
Rapa whelk	Rapana venosa	Black Sea	DCF & Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Crustaceans	Crustacea		
Deep-water red crab	Chaceon (Geryon) affinis	All Regions	Deep sea Regulation
Brown shrimp	Crangon crangon	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Baltic prawn	wn Palaemon adspersus Bl		Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Rockpool prawn	Palaemon alegans	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol

Crawfish	Palinuridae	Mediterranean Sea	Mediterranean Regulation 1976/2006 (min. cons. size)
	cnidaria		
Red coral	Corallium rubrum	Mediterranean Sea	Rec. GFCM/36/2012/1 & Rec. GFCM/35/2011/2

Footnote:

(e) When designing sampling plans aiming at collecting biological information as laid down in chapter III of this Commission decision, stock boundaries, as fixed by the competent RFMOs of RFOs, will have to be taken into account and appropriate sampling effort will be allocate to each stock.

for prohibited species: only individuals captured dead should be used. They should be discarded after the measurements, The data collection is annual and the updating/processing of the data must be done timely to fit the schedule of the stock assessments.



 $\label{eq:continuous} Table~\underline{2}$ List of anadromous and catadromous species for which biological variables shall be collected, also for including the freshwater part of their lifecycle

Species (common name)	Species (Scientific name)	Area where the Stock is located/stock code
European Eel	Anguilla anguilla	All areas of natural distribution and Eel Management Units as defined in accordance with Regulation (EC) 1100/2007
Salmon	Salmo salar	All areas of natural distribution
Sea trout	Salmo trutta	The Baltic Sea and all inland waters that exit in the Baltic Sea

Table 3 [former Appendix IV]

Fishing activity (metier) by Region

	Level 1	Level 2	<u>Level 3</u>	<u>Level 4</u>	<u>Level 5</u>	Level 6		LOA	class	ses (m) (d)	
	<u>Activity</u>	Gear classes	Gear groups	Gear type	Target assemblage (a)	Mesh size and other selective devices	<u> </u>	10-<12	<u>12-<18</u>	18-<24	24-<40	40 &+
				Boat dredge [DRB]	Anadromous species (ANA)	<u>(b)</u>	1	ı	- 1	1	- 1	1
	ity	Dredges	<u>Dredges</u>	Mechanised / Suction dredge [HMD]	Catadromous species	<u>(b)</u>	İ	1	į.	- 1	ı	İ
	g activ			Bottom otter trawl [OTB]	Crustaceans (CRU) Demersal species	<u>(b)</u>	-	-	1	-	1	-
	Fishing activity	Trawls	Bottom trawls	Multi-rig otter trawl [OTT]	(DEF) Deep-Water species (DWS) Finfish (FIF)	<u>(b)</u>	1	ı	- 1	1	- 1	1
		ITAWIS	Bottom trawis	Bottom pair trawl [PTB]		<u>(b)</u>	1	ı	- 1	1	- 1	1
				Beam trawl [TBB]	Freshwater species code needed)	<u>(b)</u>	-	-	-	-	-	-

Comment [A11]: LOA classes are not ok for the MED&BS. As reported in Dec. 93/10 and 2015 RCM MED&BS, LOA classes should be also <6, 6-12, etc.

		i									
			Midwater otter trawl [OTM]	Miscellaneous (MIS) Mixed Cephalopod	<u>(b)</u>	_	_	-	_	_	_
		Pelagic trawls	Midwater pair	and Demersal (MCF)	(b)				_		
			trawl [PTM] Hand and Pole	Mixed Crustaceans and Demersal	(0)	-	-	-	-	-	-
			lines [LHP]	(MCD)	<u>(b)</u>	_	_	_	_	-	_
		Rods and Lines	[LHM] Trolling lines	Mixed Deep-water species and Demersal							
	Hooks		[LTL]	(MDD)	<u>(b)</u>	-	-	-	-	-	-
	and Lines		Drifting longlines	Mixed Pelagic and Demersal (MPD)	(b)						
		Longlines	[LLD]	Molluses (MOL)	<u>(b)</u>	-	-	1	1	ı	-
			Set longlines [LLS]	<u>Large Pelagic fish</u> (<u>LPF)</u>	<u>(b)</u>	-		-	1	1	-
			Pots and Traps	Small Pelagic fish	(1-)						
			[FPO]	(SPF)	<u>(b)</u>	-	-	-	-	-	-
			Fyke nets [FYK]	Large Pelagic fish	<u>(b)</u>	-	-	_	-	-	_
			Stationary	(LPF) and Small Pelagic fish							
	Traps	Traps	uncovered pound nets	(SPF)	<u>(b)</u>		_				
			[FPN]								
			Fixed installations for								
			fences and		<u>(b)</u>	_	-	-	_	-	_
			weirs (code needed)								
			Trammel net		<u>(b)</u>	-	-	-	-	ı	_
	Nets	Nets	Set gillnet [GNS]		<u>(b)</u>	-	-	-	-	ı	_
			Driftnet [GND]		<u>(b)</u>	_	_	_	-	-	_
			Purse seine		(b)	_					
		Surrounding nets	[PS] Lampara nets					_	_	-	_
			[LA]		<u>(b)</u>	-	-	-	-	-	-
			Fly shooting seine [SSC]		<u>(b)</u>	-	-	-	-	-	-
	<u>Seines</u>		Anchored seine [SDN]		<u>(b)</u>	1	-	-	ı	ı	1
		<u>Seines</u>	Pair seine [SPR]		<u>(b)</u>	-	-	-	-	- 1	_
			Beach and boat		4.5						
			seine [SB] [SV]		<u>(b)</u>	-	-	-	-	-	-
	Other	Other gear	Glass eel fishing (code	Glass eel	(1-)						
	gear	Other gear	neeed)	Glass eel	<u>(b)</u>	-	-	-	-	-	-
	Misc. (Specify)	Misc. (Specify)	-	-	<u>(b)</u>	-	-	-	-	-	-
Other activ	rity than	=	=	Other activity than fishing	_		_		_	_	_
Inactive	-	-	_	Inactive	=	_	_	_	_	_	_

Comment [A12]: Combination of these 2 groups to be included as they define a specific metier in the MED

Footnotes:

(a) according to existing coding in relevant Regulations (b) according to existing coding in relevant Regulations

Table 4 Species to be collected for recreational fisheries

	Area	Species		
1	Baltic Sea (ICES Subdivisions 22-32	Salmon, eels and seatrout (including in freshwater) Flounder_and cod.		
2	North Sea (ICES areas IIIa, IV and VIId)	Salmon and eels (including in fresh water). Seabass, cod, pollack and elasmobranchs		
3	Eastern Arctic (ICES areas I and II)	Salmon and eels (including in fresh water). Cod, pollack and elasmobranchs		
4	North Atlantic (ICES areas V-XIV and NAFO areas)	Salmon and eels (including in fresh water). Seabass, cod, pollack, elasmobranchs and highly migratory ICCAT species.		
5	Mediterranean Sea	Eels (including in fresh water), seabass, seabreum, elasmobranchs and highly migratory ICCAT species. FINAL SPECIES LIST NEEDS TO BE AGREED WITH LOCAL EXPERTS		
		FINAL SPECIES LIST NEEDS TO BE AGREED WITH LOCAL EXPERTS		
		Suggestions:		
		Mugilidae		
		• Flathead grey mullet: Mugil cephalus;		
		• Golden grey mullet Liza aurata;		
		• Leaping mullet Liza saliens);		
		Gobidae		
6	Black Sea	• Round goby Neogobius melanostomus;		
		• Knout goby Mesogobius batrachocephalus;		
		Black goby Gobius niger;		
		Pinchuk's Goby Ponticola cephalargoides;etc);		
		Mediteranean Horse mackerel <i>Trachurus</i> mediterraneus		
		• Bluefish Pomatomus saltatrix;		
		Garfish Belone belone		

Comment [A13]: And also according to end-users need.

<u>Table 5</u> [former Appendix VIII] List of fishing activity variables

Heading	Variables (1)	Unit
Capacity		
	Number of vessels	Number
	GT, kW, Vessel Age	Number
Effort		
	Days at sea	Days
	Hours fished (optional)	Hours
	Fishing days	Days
	kW * Fishing Days	Number
	GT * Fishing days	Number
	Number of trips	Number
	Number of fishing operations	Number
	Number of nets / Length (2)	Number/meters
	Number of hooks, Number of lines (2)	Number
	Numbers of pots, traps (2)	Number
Landings		
-	Value of landings total and per commercial species	Euro
	Live Weight of landings total and per species	Tonnes
	Prices by commercial species	Euro/kg

Footnotes

^{1.} All variables to be reported at the aggregation level (metiers and fleet segment) specified in Table 3 and Table 6a. and by Sub-region/Fishing ground as specified in table 6b

 $^{2. \} Collection \ of \ these \ variables \ for \ vessels \ less \ than \ 10 \ meters \ to \ be \ agreed \ at \ regional \ level$

Draft proposal for variables collected according to the Control Regulation to be made available for the DCF

Vessel register information

Name of zone	Select to be included in the transversal data file
Country of registration	<mark>√</mark>
CFR	<mark>√</mark>
Date of event (3)	√
Registration number	√
Name of vessel	V
Port of registration	√
VMS indicator	V
Main fishing gear	N N
Subsidiary fishing gear	V
LOA	V
Tonnage GT	√ V
Power of main engine	√ V
Power of auxiliary engine	V
Year of construction	<mark>√</mark>



Logbook information

Name of the data element (M = Mandatory) (O = Optional) (CIF = Compulsory if applicable)	Select to be included in the transversal data file
CFR number (M)	<mark>√</mark>
External identification (M)	<mark>√</mark>
Date, time and port of departure (M)	<mark>√</mark>
Date, time and port of return (M)	√
Gear type (M)	V
Mesh size (M)	V
Gear dimension (M)	V
Attachments fitted (O)	V
Date (M)	V
Number of fishing operations (M)	N.
Fishing time (O)	N
Fishing operation reference number (if applicable) (O)	<mark>√</mark>
Date (O)	√
Time of start of operation (O)	√
Finish time of operation (O)	<mark>√</mark>
Position of start of operation (O)	√
Depth at start (O)	<mark>√</mark>
Depth at end of operation (O)	<mark>√</mark>
Position at end of operation (O)	<mark>√</mark>
Relevant geographical Area	<mark>√</mark>
Statistical rectangle	√
Third country fishing zone	<mark>√</mark>
Catches caught and kept on board (M). Minimum conservation reference size	<mark>√</mark>
Catches caught and kept on board (M). Below the minimum conservation reference size.	N
Estimates of discards (M)	<mark>√</mark>
Catches, incidental by-catches and release of other marine organisms or animals (M)	N.

Landing declaration information

Name of the data element (M = Mandatory)		ncluded in the al data file
CFR (M)	·	<mark>J</mark>
Port of landing (M)	2	<mark>/</mark>
date of landing (M)	7	<mark>/</mark>
Species identification (M)	2	V
Relevant geographical area (M)		<mark>/</mark>
Type of product presentation (M)		V
Volume of landing (M)		V
Presentation (M)		√ <mark></mark>

Sales notes information

Name of the data element (M = Mandatory) (O = Optional)	Select to be included in the transversal data file
CFR (M)	, ,
Port of landing (M)	V
Date of landing (M)	V
Species identification (M)	√
Relevant geographical area (M)	<mark>√</mark>
Type of product presentation (O)	<mark>√</mark>
Individual size/weight (O)	<mark>√</mark>
Grade (O)	<mark>√</mark>
Presentation (M)	<mark>√</mark>
Price (M)	<mark>√</mark>

VMS information

Name of the data element (M = Mandatory)	Select to be included in the transversal data file
CFR	<mark>√</mark>
Date (Year, month and date of transmission) (M)	V
Time of transmission (M)	<mark>√</mark>
Latitude (decimal) (M)	<mark>√</mark>
Longitude (decimal) (M)	V
Speed (M)	√
Course (M)	√

<u>Table 6</u> [former Appendix VI] List of Economic variables for the fleet

Variable group	Variable	
_	Gross value of landings	
Income	Income from leasing out quota or other fishing rights	
	Other income	Euro
I ohoun costs	Personnel costs	Euro
Labour costs	Value of unpaid labour	Euro
Energy costs	Energy costs	Euro
Repair and maintenance costs	Repair and maintenance costs	Euro
	Variable costs	Euro
Other operating costs	Non-variable costs	Euro
	Lease/rental payments for quota or other fishing rights	
	Operating subsidies	Euro
Subsidies		
	Subsidies on investments	Euro
Capital costs	Consumption of fixed capital	Euro
	Value of physical capital	Euro
Capital value	Value of physical capital: depreciated historical value **	
	Value of quota and other fishing rights	Euro
Investments	Investments in tangible assets, net	Euro
	Long/short Debt	Euro
Financial position	Total assets	Euro
	Engaged crew	Number
Employment	Unpaid labour	Number
Employment	FTE National	Number
	Total hours worked per year	Number

	Number	Number
	Mean LOA	Metres
Fleet	Total vessel's tonnage	GT
	Total vessel's power	kW
	Mean age	Years
Effort	Days at sea	Days
Enort	Energy consumption	Litres
Number of fishing enterprises/units	Number of fishing enterprises/units	
D 1 (1)	Value of landings per species	Euro
Production value per species	Average price per species	Euro/kg



<u>Table 6a</u> [former Appendix III] Fleet segmentation by Region

		Length classes (LOA) 1					
Active Vessels		0-< 10 m 0-< 6 m	10-< 12 m 6-< 12 m	12-< 18 m	18-< 24 m	24-< 40 m	40 m or larger
	Beam trawlers						
	Demersal trawlers and/or demersal seiners						
	Pelagic trawlers						
Using "Active" gears	Purse seiners						
Using Active gears	Dredgers				,		
	Vessel using other active gears						
	Vessels using Polyvalent "active" gears only						
	Vessels using hooks						
	Drift and/or fixed netters						
Using "Passive" gears	Vessels using Pots and/or traps	2	2				
	Vessels using other Passive gears						
	Vessels using Polyvalent "passive" gears only						
Using Polyvalent gears	Vessels using active and passive gears	,					
Inactive vessels	Inactive vessels						

Footnotes:

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

^{8.9.} Vessels less than 12 metres using passive gears in the Mediterranean Sea and the Black Sea may be disaggregated by gear type.

<u>Table 6b</u> [former Appendix II] Geographical stratification by Region

Sub-region/Fishing ground	Region	Supra region
I	п	ш
Cluster of spatial units on level 3 as defined in Appendix I (NAFO Division)	NAFO (FAO area 21)	Baltic Sea; North sea; Eastern Arctic; NAFO; Extended North Western waters (Ices areas V, VI and VII) and Southern Western waters
Cluster of spatial units on level 4 as defined in Appendix I (ICES subdivision)	Baltic Sea (ICES areas III b-d)	
Cluster of spatial units on level 3 as defined in Appendix I (ICES Division)	North Sea (ICES areas IIIa and IV) and Eastern Arctic (ICES areas I and II) North Western waters (ICES areas Vb (only Union waters), VI and VII)	
	Non EU North Western waters (ICES areas Va and Vb (only non-Union waters))	
Cluster of spatial units on level 3 as defined in Appendix I (ICES/CECAF Division)	Southern Western waters (ICES zones VIII, IX and X (waters around Azores), and CECAF areas 34.1.1, 34.1.2 and 34.2.0 (waters around Madeira and the Canary Islands))	
Cluster of spatial units on level 4 as defined in Appendix I (GSA)	Mediterranean Sea (Maritime Waters of the Mediterranean to the East of line 5°36′ West) and Black Sea (GFCM geographical sub-area as defined in Resolution FCM/33/2009/2)	Mediterranean Sea and Black Sea
RFMO's sampling Sub-areas (except GFCM)	Other regions where fisheries are operated by EU vessels and managed by RFMO's to which the Community is contracting party or observer (e.g. ICCAT, IOTC, CECAF)	Other Regions. (eventually separate between EU and non-EU waters)

 $\underline{ \mbox{Table 7}} \\ \mbox{Social variables on the fleet, aquaculture \& processing sectors} \\$

Variable group	Variable	Unit	Mandatory/ Optional
	Employment by gender	Number	M
	FTE by gender 1	Number	M
Social variables (Every 3 vears)	Unpaid labour by gender 1	Number	М
3 · · · · · y	Employment by age	Number	M
	Employment by education level	Number per education level	0
	Employment by nationality	Number per country in the world	o
	Employment by employment		
	status 1	Number	M

Footnotes:

1. Only for aquaculture and processing sectors



<u>Table 8</u> [former Appendix X] Economic variables for the aquaculture sector

Variable group	Variable ¹	Unit
	ECONOMIC VARIABLES	
Income/	Gross value of sales per species	Euro
Income/	Other income	Euro
Personnel costs	Personnel costs	Euro
Personnel costs	Value of unpaid labour	Euro
Energy costs	Energy costs	Euro
Demonstratel and	Livestock costs	Euro
Raw material costs	Feed costs	Euro
Repair and maintenance	Repair and maintenance	Euro
Other operating costs	Other operating costs	Euro
a	Operating subsidies	Euro
Subsidies	Subsidies on investments	Euro
Capital costs	Consumption of fixed capital	Euro
Capital value	Total value of assets	Euro
Financial results	Financial income	Euro
	Financial expenditures	Euro
Investments	Net Investments	Euro
Debt	Debt	Euro
	Livestock used	kg
Raw material weight	Fish Feed used	kg
Weight of sales	Weight of sales per species	Kg
	Number of persons employed	Number
	Unpaid labour	Number
Employment	FTE National	Number
	Number of hours worked by employees and unpaid workers	Hours
Number of enterprises	Number of enterprises (by category on the number of persons employed)	Number

<u>Table 9 NOT EVALUATED</u> Environmental performance variables for the aquaculture sector

Variable group	V	ariable		Specification	Unit
Sustainability data	Medicines administered ¹⁶	or	treatments	By type	Gram
	Mortalities ¹⁷				Tons



$\frac{\text{Table 10}}{\text{Iformer Appendix XI]}} \\ \text{Segmentation to be applied for the collection of aquaculture data} \\$

	Fish f	arming	techniq	ues			Polycult ure	Hatcheri es and nurseries	Shellfish fa	arming techn	iiques		
	Pon ds	Tan ks and race way	Ecl osu res and pen	Rec ircu lati on syst	Oth er met hod s	Cag es	All m	ethods	Off-b Rafts	Long line	On-bottom	Other	Comment [A14]: Included, was missing, EUROSTAT also contains this variable
Salmon		S	S	ems									
Trout													
Sea bass & Sea bream													_
Carp													
Tuna													
Eel													
Eggs for human consumption													Comment [A15]: Was replaced from
Other fresh water fish													method section to the species/product section
Other marine fish													
Mussel													
Oyster													
Clam													
Crustaceans													
Other molluscs													
Other shellfish													Comment [A16]: Added, was missing
Other aquatic organisms													
Multispecies e Seaweeds													Comment [A17]: Renamed to Multispecies due to the duplication of variable defined in the method section.
													Comment [A18]: Replaced to the end of table

Table 11 [former Appendix XII]: List of economic variables for the processing industry sector

Variable group	Variable ¹	Unit
	ECONOMIC VARIABLES	
	Turnover (1)	Euro
Income	Subsidies	Euro
	Other income	Euro
	Personnel costs	Euro
Personnel Costs	Value of unpaid labour	Euro
	Payment for external agency workers (optional)	Euro
Energy costs	Energy costs	Euro
Raw material costs	Purchase of fish and other raw material for production	Euro
Other operational costs	Other operational costs	Euro
	Operating subsidies	Euro
Subsidies	Subsidies on investments	Euro
Capital costs	Consumption of fixed capital	Euro
Capital value	Total value of assets	Euro
	Financial income	Euro
Financial results	Financial expenditures	Euro
Extraordinary costs, net	Extraordinary costs, net	Euro
Investments	Net Investments	Euro
Debt	Debt	Euro
	Number of persons employed	Number
	FTE National	Number
Employment	Unpaid labour	Number
	Number of hours worked by employees and unpaid workers	Number
Number of enterprises	Number of enterprises (1)	Number
weight of raw material (OPTIONAL)	weight of raw material per species and origin (OPTIONAL)	Kg

Table 12 [former Appendix IX]

List of research surveys at sea

Name of the survey	Acronym	Area	Period	Main targeted species etc	
Baltic Sea (ICES areas IIIb-d)				1	
Baltic International Trawl Survey	BITS Q1 BITS Q4	IIIaS, IIIb-d	1st and 4th Quarter	Cod and other demersal species	
Baltic International Acoustic Survey (Autumn)	BIAS	IIIa, IIIb-d	Sep-Oct	Herring and sprat	
Gulf of Riga Acoustic Herring Survey	GRAHS	IIId	3 rd Quarter	Herring	
Sprat Acoustic Survey	SPRAS	IIId	May	Sprat and herring	
Rügen Herring Larvae Survey	RHLS	IIId	March-June	Herring	
North Sea (ICES areas IIIa, IV and	d VIId) and Eas	tern Arctic (ICES a	reas I and II)		
International Bottom Trawl Survey	IBTS Q1 IBTS Q3	IIIa, IV	1st and 3 rd Quarter	Haddock, Cod, Saithe, Herring, Sprat, Whiting, Mackerel, Norway pout.	
North Sea Beam Trawl Survey	BTS	IVb,IVc,VIId	3rd Quarter	Plaice, Sole	
Demersal Young Fish Survey	DYFS	Coasts of NS	3 rd and4th Quarter	Plaice, sole, brown shrimp	
Sole Net Survey	SNS	IVb, IVc	3rd Quarter	Sole, Plaice	
North Sea Sandeels Survey	NSSS	IVa, IVb	4 th Quarter	Sandeels	
International Ecosystem Survey in the Nordic Seas	ASH	IIa	May	Herring, Blue whiting	
Redfish Survey in the Norwegian Sea and adjacent waters	REDNOR	II	August- September	Redfish	
Mackerel egg Survey (Triennial)	NSMEGS	IV	May-July	Mackerel egg production	
Herring Larvae survey	IHLS	IV,VIId	1 st and 3 rd Quarter	Herring, Sprat Larvae	
NS Herring Acoustic Survey	NHAS	IIIa, IV,VIa	June, July	Herring, Sprat	
Nephrops TVsurvey (FU 3&4)	NTV3&4	IIIA	2 nd or 3 rd Quarter	Nephrops	
Nephrops TVsurvey (FU 6)	NTV6	IVb	September	Nephrops	
Nephrops TVsurvey (FU 7)	NTV7	IVa	2 nd or 3 rd Quarter	Nephrops	
Nephrops TVsurvey (FU 8)	NTV8	IVb	2 nd or 3 rd Quarter	Nephrops	
Nephrops TVsurvey (FU 9)	NTV9	IVa	2 nd or 3 rd Quarter	Nephrops	
North Atlantic (ICES Areas V-XIV	and NAFO are	eas)			
International Redfish Trawl and Acoustic Survey (Biennial)	REDTAS	Va, XII, XIV; NAFO SA 1-3	June/July	Redfish	
Flemish Cap Groundfish survey	FCGS	3M	July	Demersal species	
Greenland Groundfish survey	GGS	XIV, NAFO SA1	October/November	Cod, redfish and other demersal species	
3LNO Groundfish survey	PLATUXA	3LNO	2 nd and 3 rd Quarter	Demersal species	

Name of the survey	Acronym	Area	Period	Main targeted species etc	
rame of the survey	rici onym	711cu	Teriou	Wain targeted species etc	
Wastern IDTC 4th quarter	IDTC O4	VIa, VII, VIII,	4 th Quarter	Demonal anasias	
Western IBTS 4th quarter (including Porcupine survey)	IBTS Q4	IXa	4 Quarter	Demersal species	
Scottish Western IBTS	IBTS Q1	VIa,VIIa	March	Gadoids, herring, mackerel	
ISBCBTS September	ISBCBTS	VIIa f g	September	Sole, Plaice	
WCBTS	VIIe BTS	VIIe	October	Sole, Plaice, Anglerfish,	
				Lemon sole	
Blue whiting survey		VI, VII	1 st and 2 nd Quarter	Blue whiting	
International Mackerel and Horse	MEGS	VIa, VII,VIII, IXa	January-July	Mackerel, Horse Mackerel	
Mackerel Egg Survey (Triennial)				egg production	
Sardine, Anchovy Horse Mackerel		VIII, IX	March-April-May	Sardine, Anchovy,	
Acoustic Survey		, 111, 111	maren ripin may	Mackerel, Horse Mackerel	
				abundance indices	
Sardine DEPM (Triennial)		VIIIc, IXa	2 nd and 4 th Quarter	Sardine SSB and use of CUFES	
Spawning/Pre spawning		VIa, VIIa-g	July, Sept, Nov, March,	Herring, Sprat	
Herring/Boarfish acoustic survey			Jan		
Biomass of Anchovy	BIOMAN	VIII	May	Anchovy SSB (DEP)	
Nephrops UWTV survey (offshore)	UWTV (FU 11-13)	VIa	2 nd or 3 rd Quarter	Nephrops	
Nephrops UWTV Irish Sea	UWTV (FU 15)	VIIa	August	Nephrops	
Nephrops UWTV survey Aran Grounds	UWTV (FU 17)	VIIb	June	Nephrops	
Nephrops UWTV survey Celtic Sea	UWTV (FU 20-22)	VIIg,h,j	July	Nephrops	
Nephrops Survey Offshore Portugal NepS	UWTV (FU 28-29)	IXa	June	Nephrops	
Mediterranean waters and Black s	sea				
Pan-Mediterranean Acoustic	MEDIAS	GSA 1, 6, 7, 9,	Spring-summer (qtrs	Small pelagic species	
Survey ()		10, 15,	2-3)		
		16, 17, 18, 20, 22			
D	D.M.C.D.G.	gg : 22	0.1	m 1	
Bottom trawl survey in Black Sea,	BTSBS	GSA 29	Spring - autumn (qtrs 2,3,4)	Turbot	
Pelagic trawl survey in Black Sea,	PTSBS	GSA 29	Spring-autumn (qtrs 2,3,4)	Sprat and Whiting	
International bottom trawl survey in the Mediterranean (),	MEDITS	GSA 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 15, 16, 17, 18,	Spring-summer (qtrs 2-3)	Demersal species	
		19, 20, 22, 23, 25			

9 ANNEX 2 – DRAFT WORK PLAN DECISION WITH "TRACK CHANGES" BY THE EWG 16-01

COMMISSION IMPLEMENTING DECISION

of XXX

laying down rules on procedures, format and timetables for the submission of work plans for data collection

THE EUROPEAN COMMISSION,

HAS ADOPTED THIS DECISION:

Article 1

Presentation of the content of Work Plans

The content of work plans for data collection for the period 2017 and beyond, as referred to in Article 21 of Regulation (EU) No 508/2014, shall be presented in accordance with the model set out in the Annex to this Decision.

Article 2

This Decision shall enter into force on the day following that of its publication in the *Official Journal of the European Union*.

This Decision shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels.

ANNEX

Model for national work plan for data collection

Chapter 1

Contents

- 1. Member States' work plans shall comprise of descriptions of 7 sections contain descriptions of of the section of the sectio
 - a) data to be collected in accordance with the new multi-annual Union programme taking into account the data needs of relevant end-users needs—of scientific data, including other appropriate scientific advisory bodies as referred to in Article 26 of Regulation (EU) 1380/2013 (Chapter 2);
 - b) the temporal and spatial distribution and the frequency by which the data will be collected (Chapter 3);
 - c) the source of the data, the procedures and methods to collect and process the data into the data sets that will be provided to end-users (Chapter 4);
 - d) the quality assurance and quality control framework to ensure adequate quality of the data (Chapter 5);
 - e) how and when the data will be available, taking into account the needs defined by the end-users of scientific advice (Chapter 6);
 - f) the international and regional cooperation and coordination arrangements, including bilateral and multilateral agreements concluded to achieve the objectives of this Regulation (Chapter 7); and
 - g) how the international obligations of the Union and its Member States have been taken into account (Chapter 8).
- 2. The <u>contents and</u> format of the above <u>descripsections</u> shall follow the requirements set out in Chapters 2 to 8.

Chapter 2

Data to be collected in accordance with the new multi-annual Union programme

In accordance with Chapter 2 of the multi-annual Union programme, Member States shall establish sampling plans based on statistically robust principles (statistical sound sampling schemes) for the collection of data. In recognition of the existing EU MAP and transition times

required by Member States, quota based sampling plans based on "metiers" may persist. The statistical methods used for sampling should be agreed at regional level by the relevant Regional Coordination Groups.

For commercial fisheries, the sampling schemes shall encompass the total landings into the Member State and fishing activities of vessels operating under the flag of the Member State. To that end, Tables 1 and 2 are describing the landing locations and flag fleet summaries are informative as to the sampling frame population.

Member States shall establish the data to be collected amonst the following sets:

- 1. Data to support assessment of the state of exploited marine resourses and the level of fishing, stocks by Union commercial fisheries in Union and outside Union waters and by recreational fisheries in Union waters. These data consist of:
 - a) Data on catch quantities by species (Table 3) and biological data from individual specimens (Tables 4 and 5) enabling the estimation of:
 - i. volume and length frequency of all catch fractions by stock,
 - ii. volume of catch and releases of recreational fisheries for the relevant species as listed in Table 4 of the EU MAP or if requested by end-users for providing advice for the management of the CFP. This should be sumamrised as defined in Table 11.
 - iii. mean-weight and age distribution of relevant stocks.
 - iv. sex-ratio, maturity ogives and fecundity data for relevant stocks from commercial catches where necessesary and where possible needed by the enduser and agreed in the Regional Coordination Groups.
- 1. Biological data on stocks caught or by caught, including discards, by Union commercial fisheries in Union and outside Union waters and by recreational fisheries in Union waters:
 - (a) stock related variables [Tables 1-3] containing information for individual specimens on age, length, weight, sex, maturity and fecundity.
 - (b) catch quantities by species and type of fisheries enabling the estimation of (i) quarterly length distribution of species in the catches, (ii) quarterly volume of catch fractions (including discards) and (iii) quarterly volume of catch of recreational fisheries [Tables 4-6]
- 2. For anadromous and catadromous species, as indicated in Table 2 of the EU MAP:
 - a) stock-related biological variables (for individual specimens, on age, length, weight, sex, and fecundity, by life stage, but further specified on a species and regional basis), and annual catch quantities by age class or life stage, caught by commercial and recreational fisheries, including during the freshwater part of their lifecycle (Table 12a).
 - b) In addition, in at least one Eel Index River basin per Eel Management Unit, information (e.g. data, estimates, relative trends, etc.) should be annually collected on the abundance of recruits, the abundance of the standing stock (yellow eel) and on the number or weight, and sex ratio, of emigrating silver eels, and once every Eel Management Plan reporting period, information should be collected on the other anthropogenic impacts that are reported in national assessments for Eel Management Plans (Table 12b). In all wild salmon and sea trout stocks in Index rivers in areas set out in Table 2 of the EU MAP, information should be annually collected on the abundance of smolt and parr and

the number of ascending individuals. The designation of Index Rivers is to be approved by RCGs.

- _(c) stock related variables and catch quantities by age class for anadromous and catadromous species, from commercial and recreational fisheries, including during the freshwater part of their life cycle and independent of the way these fisheries are undertaken [Table pending]
- 4.3. Data to assess the impact of Union fisheries on the marine ecosystem in Union waters and outside Union waters, which are including (i) data on by-catch of non-target species, in particular species protected under international or Union law (Table 10), and for monitoring under the CITES Regulation 1, (ii) data on impacts of fisheries on marine habitats, (iii) data on impacts of fisheries structure of food webs, and (iv) data on deep sea species.
- 2.4. Detailed data on the activity of Union fishing vessels in Union waters and outside Union waters as reported under Regulation 1224/2009. For fleet segments, geographical areas or quantities of fish landed, not collected under Regulation 1224/2009, estimates on representative samples should be provided [Table 14]
- 3.5. Social and economic data on fisheries to enable the assessment of the social and economic performance of the Union fisheries sector [Table 15]
- 4.6. Social and economic data and sustainability data on aquaculture to enable the assessment of the social and economic performance and the sustainability of the Union aquaculture sector, including its environmental impact [Tables 16a and 16b]
- 5.7. Social and economic data on processing sector to enable the assessment of the social and economic performance of the Union processing sector [Table 17]
- 6.8. Applicable mandatory research surveys at sea [Tables 18a and 18b]

Chapter 3

Temporal and spatial and the frequency by which data will be collected

- 1. Specifications on temporal and spatial data collection and frequency by which data <u>areis</u> to be collected should follow <u>the relevant end users needs and the agreed</u> recommendations provided by Regional Coordination Groups, <u>PGECON</u> and other relevant bodies, endorsed by <u>STECF</u>.
- 2. When no such recommendation is made, Member States shall establish and describe specifications on temporal and spatial data collection and frequency taking into account historic time series, cost effectiveness and end user needs (Tables 6 and 7).
- 2.3.For recreational fisheries, regular pilot surveys are specified (every 5 years) and annual surveys of the species listed in Table 4 of the EU MAP or identified by pilot studies and management need.

Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein

Chapter 4

Source of data, procedures and methods

- 1. The source of data should be described when they are collected under other legal acts than [new DCF regulation], as defined in Article 1 of the DCF regulation. Member States, where relevant, shall explain any differences in collection arising from obligations under other EU legal acts and ways to eliminate potential discrepancies.
- 2. Member States shall describe, in the corresponding table, where thresholds apply in accordance with Chapter IV of the multi-annual Union programme taking into account the data needs of end users of scientific data and agreements made by the relevant regional coordination groups
- 3. Where the multi-annual Union programme refers to a pilot study, Member States shall describe such study including, taking account of any recommendations of regional coordination groups regarding the aim, duration and expected, timeline, milestones and deliverables of the pilot study.
- 4. Where a simplified methodology may be applied in accordance with Chapter IV of the multi-annual Union programme, Member States shall describe the methods used.
- 5. Different sampling designs (like metier-based and statistically sound sampling scheme) shall be described in the corresponding tables.
- 6. <u>DMethodologies</u>, definition and calculation of economic variables should follow commonly accepted guidelines by <u>PGECONrelevant bodies</u>, where relevant. For methodologies, Member States should follow commonly accepted guidelines by <u>PGECON and relevant bodies</u>, where relevant. When this is not the case, Member States should clearly describe and justify the adopted approach.
- 7. Where reference is made in the multi-annual Union programme on further specification on data requirements, the relevant bodies on a regional and EU basis should be consulted.

Chapter 5 **Quality assurance and quality control**

- 1. A quality assurance and quality control framework, in the following referred to as QAF, shall be implemented setting the general principles, methods and tools that can provide guidance and evidence for an effective and common approach at European and National level.
- 4.2. Data collection methods shall be described in the workplans or in publicly available documents referred to in the workplans, for all data collected (Table 13).
- Where data are to be collected, it should be done on the Sound Methodology principle. by sampling rather than census, Member States shall use statistically sound designs that follow guidelines for good practice provided by Eurostat or by ICES, STECF or other expert bodies on behalf of the European Commission. Documentation of sampling schemes shall follow the principles of the QAF, including but not limited to, of sampling schemes shall

specify_specification of the purposes, design, data archiving and quality assurance procedures, and analysis methods. Description of design should cover the definition of the sampling units, sampling frames and their coverage of the target population_(including criteria used for coverage), stratification schemes, and sample selection methods for primary, secondary and lower level sampling units. For census data, Member States shall indicate if all segments are covered and what parts of the total population are missed and how these parts are_estimated. The quality of sampling data shall be demonstrated using quality indicators related to precision and potential for bias.

- 3.4. Quality, methods and sampling design shall be established on the basis of recommendations from by Regional Coordination Groups or PGECON, with support from ICES or other relevant scientific bodies where appropriate, and validated by the STECF.
- 4.5. Where it is not possible to define quantitative targets for sampling programmes, neither in terms of precision levels, nor in terms of sample size, pilot surveys shall be carried out and described as well as a planforecast for data availability. In case the two tables do not match, Member States should also provide clarification on reasons for delay in the data transmission.
- 5.6. Where quantitative targets can be defined, they may be specified either directly by sample sizes or sampling rates, or by the definition of the levels of precision and of confidence to be achieved.
- 6. Where concurrent sampling is carried out it shall be indicated whether all species of the catch are covered, only commercial species or only certain taxa.

Chapter 6

Availability of data to end users

For the purpose of describing when data will be collected and by when they will be processed and made available to end-users, Member States shall report already known reporting obligations in [Tables 19 and 205]

Chapter 7 Regional cooperation and coordination arrangements

- 1. Member States shall report in <u>Table 21 in which relevant regional and international meetings they participate and in Tables 2216, 17 on how agreed recommendations of RCMs/RCGs and PGECON are followed. If that is not the case, Member States shall explain the reasons. The effect these recommendations have had on their data collection shall be indicated.</u>
- 2. Member States shall report in Table <u>23</u>+8 all relevant information on agreements with other Member States, to allow for a clear distinction of what data will not be collected, the duration of the agreement and which Member State will be responsible for data collection.
- 3. Regarding research surveys at sea, Member States shall state any their participation (physical and/or financial) to each individual survey following thean agreements in the relevant regional coordination groups. If agreement is reached on redistribution of tasks

with other Member States, the share as well as the reporting and transmission obligations of each Member State shall be stated.

Chapter 8 International obligations

Member States shall report on all relevant data collection obligations stemming from international agreements which they are or the Union is party of, and which of the data collection ensures fulfilment of these obligations.



Table templates and guidance to fill in the tables

Table 1. Description of the fisheries by flag fleet.

Table 1. F	escription of the fisher	ies by flag fleet																WP			
		,,																WP date of	submissio	n	31/10/2016
MS	Region	RFMO/RFO/IO	Sub-area / Fishing ground	reference years	Fleet Segment /metier	Targeted Species / species assemblage	vessels during the	Average Number of fishing trips during the the reference years	Average Number of fishing days during the the reference years	Average landings (tons) during the the reference years	Average landings (tons) home during the the reference years	Average landings (tons) abroad during the the reference years	WP comments	Sampling year (AR)	Total No. of vessels during the Sampling year	Total No. of fishing trips during the Sampling year	Total No. of fishing days during the Sampling year	during the	Total No. of tons landed at home during the Sampling year	Total No. of tons landed abroad during the Sampling year	WP comments
	Baltic Sea		ICES areas III b-d		demersal trawlers	bottom trawl mixed fishery	102	24563		57388	54234	3154		2018	109	21089		55503	52349	3154	
	Baltic Sea		ICES areas III b-d		demersal seine net	mixed whitefish	6	758		2264	2130	134			5	1432		1899	1765	134	
	Baltic Sea		ICES areas III b-d		pelagic	mackerel	25	89		119745	98403	21342			23	94		96049	78593	17456	
	North Sea and Eastern Arctic		ICES Sub-areas I, II, IIIa, IV and VIId		OTB_CRU _16-22	shrimps	15	3625		6345	6345	0			17	5633		5483	5483	0	
	North Atlantic	NAFO	NAFO	2016-2017	OTB_MDD _130- 219_0_0	Mixed demersal and deep water species (Greenland Halibut)	23	47	795	9125	9125	0		2018	22	30	648	8459	8459	0	
	North Atlantic	NAFO	NAFO	2016-2017	OTB_MDD _>=220_0_ 0	demersal and deep water species (skates)	19	20	342	4648	4648	0		2018	22	24	391	4508	4508	0	
	North Atlantic	NAFO	NAFO	2016-2017	OTB_CRU _40- 59_0_0	Crustaceans (northern shrimp)	2	2	12	25	25	0		2018	0	0	0	0	0	0	fishery closed in 2018
	North Atlantic	NAFO	NAFO	2016-2017	OTM_DEF _130- 135_0_0	Demersal species (alfonsino)	1	2	NA *	NA*	NA *	0	* Confidential data (only one vessel)	2018	1	NA *	NA*	NA*	NA *	0	* Confidential data (only one vessel)
	Other Regions	ютс	FAO 51+ 57	2015-2016	PS_LPF_0 _0_0 (TROP)	Tropical tunas (bigeye, skipjack, yellowfin)	15	157	4108	127795	0		a different reference period (2015-2016) have been taken because during the year 2017 most vessels moved to other regions due to the piracy	2018	15	169	4203	126913	0	126913	

This table sould be used for the Work Plan and Annual Report. For the sampling year columns trips, tons, fishing days number of vessels should be repeated for the sampling year.

Table 2. Description of the landing locations.

Table 2. De	escription of the landing	ng locations												WP WP date of s	ubmission		31/10/2016
мѕ	Region	Sub-area / Fishing ground	reference years	Landing locations(s)*	Average Number of locations in reference years*	Average Number of registered landings during the reference years	Average Landed tonnage during the reference years	Average Landed tonnage own flag during the reference years	Average Landed tonnage foreign vessels during the reference years	WP comments	Sampling year (AR)	Number of locations*	Number of registered landings during the sampling year	Total landed tonnage during the sampling year	Landed tonnage of own flag during the sampling year	Landed tonnage of foreign vessels during the sampling year	AR comments
	North Sea and Eastern Arctic	ICES Sub-areas I, II, IIIa, IV and VIId	2015-2017	grouping 1	2	2894	113247	102478	10769		2018	2	3246	22370	9824	12546	
	North Sea and Eastern Arctic	ICES Sub-areas I, II, IIIa, IV and VIId	2015-2017	grouping n	37	950	1564	1564	0	477	2018	37	873	2740	2740	0	
	North Sea and Eastern Arctic	ICES Sub-areas I, II, IIIa, IV and VIId	2015-2017														
	North Sea and Eastern Arctic	ICES Sub-areas I, II, IIIa, IV and VIId															
			*ontional														

This table sould be used for the the AWP and AR. For the sampling year the columns detailing the numbers of landings and tonnages should be repeated. The breakdown of landing location and number can follow the sampling strata, or be optional.

<u>Use Ttables 1 and 2 to summarize the total operations of the national flag fleet of the member state</u>, and the total landings into the Member State.

Table 3. List of required stocks

Table 3	. List of requi	red stocks		-						WP			
										WP date of submiss	ion		31/10/2016
										AR year			
					Planned							Achieved	
MS	Reference years	Species	Region	RFMO/RFO/IO	Area / Stock	Selected for sampling (yes/no)	Average landings in the reference years (tons)	EU TAC (if any) (%)	Share (%) in EU landings at regional level	WP comments	Sampling year (AR)	Total landing in the sampling year (tons)	AR comments
UK	2013-2015	Gadus morhua	North Sea and Eastern Arctic	ICES	Illa, IV, VIId	Yes	180	8					
UK	2013-2015	Solea solea	North Atlantic	ICES	VIIa	Yes	515	16					
UK	2013-2015	Solea solea	North Atlantic	ICES	VIIe	No	75	3					
UK	2013-2015		North Sea and Eastern Arctic	ICES	IV, FU 33	Yes	150	6					
ITA	2013-2015	Boops boops	Mediterranean and Black Sea	GFCM	GSA17	No	240		7				
ESP	2013-2015		Mediterranean and Black Sea	GFCM	GSA06	Yes	3500		60				
ESP	2013-2015	Merluccius merluccius	Mediterranean and Black Sea	GFCM	GSA07	Yes	3500		60				

<u>Table 4. Long-term planning of sampling for biological variables.</u>

able 4. Lo	ong-term planning of sam	pling for biological variables																									WP		e of s	subn		n 31/10/2016
MS	Species	Region	RFMO/RFO/IO	Area / Stock			Age	е				We	eight				5	ex ra	tio			Se	xual	mat	urity			F	ecur	ndity	,	Comments
					2017	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2017	2018	2019	2020	202	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	
PRT	Pleuronectes platessa	North Sea and Eastern Arctic	ICES	IV						7	X	Т	Х			Х			X)		Т	Х	Т	П		No	t app	plicab	le	1
PRT	Nephrops norvegicus	North Atlantic	ICES	FU 7		\dashv		\mp	-	- 2	X X	X	Х	Х	Х	Х	Х	Х	X :	X)		X	X	X	Х	Х	Х	X	Х	Х	X >	
ESP ESP		Mediterranean and Black Sea Mediterranean and Black Sea	GFCM GFCM	GSA06 GSA07				\exists		H		\vdash							\pm				+		\vdash	F					\pm	
				_			_ T	Т				1	1 -	1 7	Т	- 1	Т	T	П			╌	1		1	Г	I —	17	iΠ	, Т		

All individual sampled should be identified to species and have length measurement taken where possible. For species listed in Table 4, additional biological parameters (age, weight, sex ratio, maturity and fecundity) should be collected. Use Table 4 to give an overview of the long-term sampling strategy with respect to 'stock-based variables'. For each parameter (age, weight, sex ratio, maturity and fecundity) and year, enter 'X' if data collection has taken place or is planned. This table should allow the evaluators to identify in which year(s) data were / will be collected and hence, whether the MS is respecting the required periodicity for data collection.

Table 5. Sampling intensity for biological variables

Table 5. Sa	ampling intensity for biol	ogical variables				PLAN	NED					WP WP date of s AR year	ubmission		31/10/2016
MS	MS partcipating in sampling	Species	Region	RFMO/RFO/IO	Area / Stock	Variables	Data sources	Planned minimum No of individuals to be measured at a national level	Planned minimum No of individuals to be measured at the regional level*	WP comments	year (AR)	Achieved No of individuals at area/stock level	No of individuals from	Achieved No of individuals from research surveys at sea	AR comments
FRA	FRA-UK-BEL	Solea solea	North Sea and Eastern Arctic	ICES	IIIa, IV, VIId	age	Commercial + surveys					100	60	40	
FRA	FRA-UK-BEL	Solea solea	North Sea and Eastern Arctic	ICES	Illa, IV, VIId	sex	Commercial + surveys					30	12	18	
FRA	FRA-UK-BEL	Solea solea	North Sea and Eastern Arctic	ICES	Illa, IV, VIId	maturity	Commercial + surveys	(CONT.)							
FRA	FRA-UK-BEL	Solea solea	North Sea and Eastern Arctic	ICES	IIIa, IV, VIId	length	Survey					25	0	25	
FRA	FRA	Merluccius merluccius	North Atlantic	ICES	Illa, IV, VI, VII, VIIIab		Commercial	-							
FRA	FRA	Merluccius merluccius	North Atlantic	ICES	Illa, IV, VI, VII, VIIIab		Commercial + surveys								
FRA	FRA	Merluccius merluccius	North Atlantic	ICES	Illa, IV, VI, VII, VIIIab		Commercial + surveys								
FRA	FRA	Parapenaeus longirostris	Mediterranean Sea and Black Sea	GFCM	GSA09		Commercial + surveys								
					V										

Explain the sampling strategy planned regarding the stock-based variables. The parameter 'Variables' should be linked to Table 4.

Table 6. Sampling plan description

Table 6. S	ampling plan de	escription												WP		
													WP da	te of submi	ssion	31/10/2016
			_	7000		100007								AR year		
				-		P	lanned		-	1				Achi		
MS	MS participating in sampling	Region	RFMO/RFO /IO	Sub-area / Fishing ground	Scheme	Strata ID number	PSU type	Seasonality (Temporal strata)	Reference years	Average Number of PSU during the the reference years	Planned number of PSUs	WP comments	Sampling year (AR)	Total No. of PSU during the sampling year	Sampled PSU during the sampling year	AR comments
SCT		NSEA NA		·	Demersal at- sea	SCT SD1-5	vessel x trip	annual		~4000	40			3765	38	
SCT		NSEA NA			Demersal at- sea	SCT SD2-5	vessel x trip	annual		~500	10			674	10	
SCT		NSEA NA			Demersal at- sea	SCT SD3-5	vessel x trip	annual		~2000	6			2675	6	
SCT		NSEA NA			Demersal at- sea	SCT SD4-5	vessel x trip	annual		~750	20			352	18	
SCT		NSEA NA			Demersal at- sea	SCT SD5-5	vessel x trip	annual		~15000	6			18673	5	
SCT		NSEA NA			Demersal on- shore	SCT LD1-4	port X day	annual		~345	60			349	61	
SCT		NSEA NA			Demersal on- shore	SCT LD2-4	port X day	annual		~7000	20			5698	19	
SCT		NSEA NA			Demersal on- shore	SCT LD3-4	port X day	annual		~3000	25			3546	24	
SCT		NSEA NA			Demersal on- shore	SCT LD4-4	port X day	annual		~1000	30			893	30	
		North Atlantic	NAFO	NAFO	sampling at sea	L3	vessel trip	annual	2015-2017	71	9		2018	55	12	
		Other Regions	IOTC	FAO 51+ 57	sampling on shore	T18	vessel trip	annual	2015-2017	157	120		2018	169	118	

Use Table 6 to identify all sampling schemes in which the member state is participating. The table will list, by scheme, and the strata within the scheme, the primary sampling unit (PSU) type the envisaged number of PSU that will be available in the year of submission. It will for each strata record the number of PSU the member state is planning to undertake. Each row of the table will correspond to a row of the achieved sampling outlined in the annual report. Note that for the ease of automation each column in this table correspond to a field in the CS data exchange format used in the RDB.

Table 7. Sampling frame description

ng frame descr	iption		WP	
			WP date of submission	31/10/2016
			AR year	
Strata ID number	Strata	Sampling frame description	Method of unit selection	Comments
SCT SD1-5	North Sea offshore fish trawlers	Vessel list of 120 DTS >18m	random draw from randomised list	
SCT SD2-5	North sea offshore prawn trawlers	shellfish	random draw from randomised list	
SCT SD3-5	North sea inshore trawlers	Vessel list of 250 DTS <18m based in NS ports	random draw from randomised list	
SCT SD4-5	West coast offshore trawlers	Vessel list of 15 DTS >18m based in WC ports	random draw from randomised list	
SCT SD5-5	Westcoast inshore trawlers	Vessel list of 2500 DTS <18m based in WC ports	random draw from randomised list	
SCT LD1-4	NE main port	1 port active for ~ 345 days	random weekday from systematic weekly coverage	
SCT LD2-4	NE minor ports	25 ports active over 280 days	random weekday from systematic biweekly coverage	
SCT LD3-4	W ports	10 ports active over ~300 days	random weekday from systematic biweekly coverage	
SCT LD4-4	Island ports	4 ports active over ~250 days	random weekday from systematic biweekly coverage	
L3	trawlers operating in NAFO	vessels with licence to fish in NAFO	random draw from the list of vessels (without replacement)	
T18	purse seiners fishing tropical	purse seiners fishing in Indian Ocean and landing in the port of Victoria (Seyrchalles)	random draw from purse seiner vessels landing in the port of Victoria (Sourchelles)	purse seiner fleet, fishing tropical tunas in Indian Ocean lands their catches in the ports of Victoria, Mahé, Mombasa, Antisarana, but due to the long distance, sampling can be performed only in the port of Victoria (where most of the fleet landings take place)
	Strata ID number SCT SD1-5 SCT SD2-5 SCT SD3-5 SCT SD4-5 SCT LD1-4 SCT LD2-4 SCT LD3-4	number SCT SD1-5 North Sea offshore fish trawlers North sea offshore prawn trawlers SCT SD2-5 North sea inshore trawlers SCT SD3-5 West coast offshore trawlers SCT SD5-5 Westcoast inshore trawlers SCT LD1-4 NE main port SCT LD2-4 NE minor ports SCT LD3-4 SCT LD4-4 Island ports L3 trawlers operating in NAFO	Strata ID number SCT SD1-5 North Sea offshore fish trawlers North sea offshore prawn trawlers SCT SD2-5 North sea inshore trawlers SCT SD3-5 North sea inshore trawlers SCT SD3-5 West coast offshore trawlers SCT SD5-5 Westcoast inshore trawlers SCT LD1-4 NE main port SCT LD2-4 NE minor ports SCT LD3-4 SCT LD3-4 SCT LD3-4 Vessel list of 250 DTS <18m based in WC ports Vessel list of 15 DTS >18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in WC ports Vessel list of 2500 DTS <18m based in W	Strata ID number Strata Sampling frame description SCT SD1-5 North Sea offshore fish trawlers SCT SD2-5 North Sea offshore prawn trawlers SCT SD2-5 North sea inshore trawlers SCT SD3-5 West coast offshore trawlers SCT SD4-5 West coast offshore trawlers SCT SD5-5 West coast inshore trawlers SCT LD1-4 NE main port SCT LD2-4 NE minor ports SCT LD3-4 We ports 10 ports active over -300 days SCT LD4-4 Island ports Vessel is of 15 Drs >18m based in NX ports Vessel list of 15 Drs >18m based in NX ports Vessel list of 15 Drs >18m based in WC ports random draw from randomised list random draw from randomised list random draw from randomised list random draw from randomised list random draw from randomised list random draw from randomised list random draw from randomised list random draw from randomised list random draw from randomised list random draw from randomised list random weekday from systematic biweekly coverage random weekday from systematic biweekly coverage random weekday from systematic biweekly coverage random weekday from systematic biweekly coverage random weekday from systematic biweekly coverage random weekday from systematic biweekly coverage random weekday from systematic biweekly coverage random weekday from systematic biweekly coverage random draw from the list of vessels wessels with licence to fish in NAFO purse seiners fishing in Indian Ocean and landing in the port of vessels landing in the port of Victoria

Table 6 can also be linked to additional QA information to be supplied about the sampling schemes and strata

Table 8. Achieved sampling (only for Annual Report)

							7000									WP date of sub AR year	mission		31/10/201
MS	MS participating in sampling	Region	RFMO/RFO /IO	Sub-area / Fishing ground	Scheme	number	Sampling year (AR)	Total No. of PSU during the sampling year	Sampled PSU during the sampling year	Number of unique on- shore locations	Number of unique vessels	Number of unique voyages	Number of unique species/ stocks measured	Total length measurements taken	Total age structures collected*	Total weight measurements taken*	Total sex measurements taken*	Total maturity measurements taken*	Commer
SCT		NSEA NA			Demersal at-sea	SCT SD1-	2017	3765	38	0	29	38	24	4326	657	0	0	0	
SCT		NSEA NA				SCT SD2-		674	10	0	6	10		2165		0	0	0	
SCT		NSEA NA				SCT SD3-		2675	6	0	6	6	65	478		0	0	0	
SCT		NSEA NA			Demersal at-sea	SCT SD4- 5		352	18	0	10	18	32	3452		0	0	a	
SCT		NSEA NA			at-sea	SCT SD5- 5		18673	5	0	5	5	12	435	56	0	0	a	
SCT		NSEA NA			on-shore	SCT LD1- 4		349	61	1	78	132	16	23546	2454	0	0	O	
SCT		NSEA NA			on-shore	SCT LD2- 4		5698	19	13	28	43	12	2436	1276	0	0	O	
SCT		NSEA NA			on-shore	SCT LD3- 4		3546	24	6	34	54	5	7658	543	0	0	0	
SCT		NSEA NA			Demersal on-shore	SCT LD4- 4		893	30	4	54	54	8	2464	1574	0	0	α	
ESP		North Atlantic	NAFO	NAFO	sampling at sea	L3	2018	55	12		9	12	27	65437					
ESP		Other Regions	IOTC	FAO 51+ 57	sampling on shore	T18	2018	169	120	1	15	120	33	168439					

Tables 6 and 7 can be linked to additional Quality Assurance information about the achieved sampling to be supplied in the Annual Report. Note that for the ease of automation, each column in the achieved sampling table can be calculated from fields in the CS data exchange format used in the Regional Data Base.

<u>Table 9. Achieved length sampling of catches, landings and discards by species (only for Annual Report)</u>

Table 9. Ac	hieved length sam	pling of catch	es, landings a	ind discards by species								WP			
												WP date of s	ubmission		31/10/2016
												AR year			
MS	MS partcipating in sampling	Multi-lateral agreement	Sampling year (AR)	Region	RFMO/RFO /IO	Sub-area / Fishing ground	Strata ID number	Metier (level 6)	Species	Number of fish measured from the unsorted catches	Number of fish measured from the retained catches and/or landings	Number of fish measured from the discards	Achieved no of fish measured at metier level by MS (= K+L+M)	Number of sampling events (fishing trips/PSU)	Comments
	FRA-UK	Y	2015	North Sea and Eastern Arctic	ICES				Solea solea		9800	1290	11090		
	FRA	N	2015	Mediterranean Sea and Black Sea	GFCM				Parapenaeus longirostris	400			400		
	FRA	N	2015	North Sea and Eastern Arctic	ICES				Pleuronectes platessa		4205	2300	6505		
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0			7822	-	1980	2	stock NAFO 3M
		N	2018	North Atlantic	NAFO	NAFO		OTB_MDD_130-219_0_0			454	-	0	5	stock NAFO 3NO. TAC=0
		N	2018	North Atlantic	NAFO	NAFO	L3		Glyptocephalus cynoglossus		0	-	359	4	stock NAFO 3L. TAC=0
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0	Glyptocephalus cynoglossus		31	-	0	1	stock NAFO 3M. TAC=0
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0	Glyptocephalus cynoglossus		391	-	0	5	stock NAFO 3NO. TAC=0
		N	2018	North Atlantic	NAFO	NAFO			Hippoglossoides platessoides		654	-	0	7	stock NAFO 3LNO. TAC=0
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0	Hippoglossoides platessoides		38	-	0	1	stock NAFO 3M. TAC=0
		N	2018	North Atlantic	NAFO	NAFO		OTB_MDD_130-219_0_0	Macrourus berglax		2628	-	2481	7	stock NAFO SA 2+3
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0	Reinhardtius hippoglossoides		18333	-	21	7	stock NAFO 3KLMNO
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0			2522	-	3814	7	stock NAFO 3M
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0			1202	-	0	5	stock NAFO 3O
		N	2018	North Atlantic	NAFO	NAFO		OTB_MDD_130-219_0_0			1193	-	367	7	stock NAFO 3LN
		N	2018	North Atlantic	NAFO	NAFO		OTB_MDD_130-219_0_0			0	-	67	1	
		N	2018	North Atlantic	NAFO	NAFO		OTB_MDD_130-219_0_0			0	-	144	2	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0	Coryphaenoides rupestris		468	-	1256	7	
		N	2018	North Atlantic	NAFO	NAFO		OTB_MDD_130-219_0_0	Antimora rostrata		0	-	1077	6	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0			0	-	472	6	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0	Merluccius bilinearis		67	-	149	4	
		N	2018	North Atlantic	NAFO	NAFO			Micromesistius poutassou		0	-	18	1	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0			0	-	2	1	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0	Argentina silus		0	-	23	1	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_130-219_0_0			0	-	60	1	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0	Gadus morhua		340	-	635	5	stock NAFO 3NO. TAC=0
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0	Hippoglossoides platessoides		1180	-	2487	5	stock NAFO 3LNO. TAC=0
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0	Limanda terruginea		862	-	3684	5	stock NAFO 3LNO. TAC=0
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0			3953	-	1836	5	stock NAFO SA 3
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0			113	-	185	4	stock NAFO 3LN
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0			219	-	1258	5	stock NAFO 3O
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0	Uropnycis tenuis		108	-	452	4	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0	Myoxocephalus octodecemspinosus		0	-	21	1	
		N	2018	North Atlantic	NAFO	NAFO	L3	OTB_MDD_>=220_0_0	maiacoraja senta		0	-	11	1	

<u>Use Tables 1A, B, C of the new EU MAP to identify which stocks are going to be included in the sampling scheme of volume of catch fractions including discards. The aggregation level (metiers) should follow Table 3 of new EU MAP.</u>

<u>Table 10. Incidental catch of vulnerable species (marine mammals, seabirds, reptiles etc.) (only for Annual Report)</u>

Table 10. Inci	dental catch of	of vulnerable	species (mari	ne mammals, sea	birds, reptiles etc	.)				WP		
									WP	date of submis	ssion	31/10/2016
										AR year		
MS	Sampling year (AR)	Region	RFMO/RFO/ IO	Sub-area / Fishing ground	Metier (level 6)	Number of trip by metier in the sampling year	Group of vulnerable species	Family*	Species*	Is there any mitigation device?	Total number of individuals caught	Comments
FRA	2015	North Sea and Eastern Arctic	ICES									
FRA	2015	Mediterranea n Sea and Black Sea	GFCM									
FRA	2015	North Sea and Eastern Arctic	ICES									

This table provides details on recorded incidental by-catch. These numbers cannot be used for the estimation of incidental by-catch on fleet level, because sampling schemes are not designed for sampling of rare species. In the first place, incidental by-catch can only be observed at sea, not in port sampling programmes. Secondly, on board observers are likely to miss incidental by-catch when sampling the target fish species. The actual observer effort to scan the whole catch for incidental by-catch is included in the data uploaded to the Regional Database, but is not presented in this table.

Table 11: Recreational fisheries

Table 11.	Recreational I	lisheries											WP year of submission	
													AR year	
MS	Sampling year	Region	RFMO/RFO/IO	Species	Applicable (Species present in the region?)	Reasons for not sampling	Annual estimate of catch? Y/N	Annual percentage of released catch (Y/N)	Collection of catch composition data Y/N	Type of Survey	Estimation of the yearly weight of catch (Y/N)	Estimation of yearly percentage released (Y/N)	Collection of catch composition data Y/N	Comments
UK	2015	North Sea and Eastern Arctic	ICES	Cod	Y		Y	Υ	Y	National estimates of numbers of trips & onsite surveys of catch per unit effort				
NL	2015	North Sea and Eastern Arctic	ICES	Eel	Y		Υ	Y	,	National estimates of numbers of angler & angler diaries				
UK	2015	North Sea and Eastern Arctic	ICES	Sharks	N		Y	Y		National estimates of numbers of trips & onsite surveys of catch per unit effort				
DE		Baltic Sea	ICES	Elasmobranchs	Y	No catches	N	N						
		Battic Sea	ICES											
		Baltic Sea	CES											
		North Atlantic	ICES											
-		North Atlantic North Atlantic	ICES											
		Mediterranean Sea												
-		Mediterranean Sea												
		Mediterranean Sea												
		Mediterral lear Jea	OLOM											

- All the species listed in Table 4 of the EU MAP or identified by pilot studies and/or management need for the recreational fishery (by region) should be included here. All species should be included even if the species are not present in the country along with the reason for not sampling. (e.g. species not present in the area, regulations/laws in the country, fit the requested threshold, etc.)
- MS should indicate whether it plans estimation of the annual catches (weight and numbers), rate of released fish, and indicate if composition of the catch of fishes will be collected, and eventually to report them in the AR.
- MS should indicate the types of survey that will be done to collect data and should refer to a detailed plan compiled that includes all aspects defined in Chapter 1.
- Three columns are provided to indicate if MS has planned and thereafter achieved the collection of recreational fisheries data as specified in the Annual Report, and the data have been transmitted to the EC.

Table 12a: Anadromous and catadromous species data collection, long term river by river

Table 12a.	Anadromous and c	atadromous spe	cies data collecti	on, long term riv	er by river								WP Year of submission	n
					State of the state								AR Year	
MS	Sampling period	Region / EMU	RFMO/RFO/IO	Species	Applicable y/n	Reasons for not sampling		Life stage	Fishery indeper		Fishery catch est		Collection of biological variables	Comments
					y/ii		7000		method	y/n	method	y/n	y/n	
FIN	2017-2020	Baltic	NASCO	salmon	A		RIVER AAA	parr	electrofishing	n	N/A		у	
FIN	2017-2020	Baltic	NASCO	salmon	400000000		RIVER AAA	smolt	trap	У	N/A		у	
FIN	2017-2020		NASCO	salmon	7000000		RIVER AAA	adult	counter	У	N/A		у	
FIN	2017-2020	Baltic	NASCO	salmon	7000000		RIVER AAA	adult		n	logbook / records	у	у	
FIN	2017-2020	Baltic	ICES	eel	1000000		RIVER EEE	glass	trap / electofishing	у			у	
FIN	2017-2020	Baltic	ICES	eel			RIVER EEE	yellow	electrofishing / fykes	у			у	
FIN	2017-2020	Baltic	ICES	eel	/////////	00000	RIVER EEE	silver	trap / fyke / counter	У			у	
GBR	2017-2020		ICES	eel			N/A	glass			records	у	у	
GBR	2017-2020		ICES	eel			N/A	yellow			records	у	у	
GBR	2017-2020	UK Northern	ICES	eel			N/A	silver			records	у	у	

- Column Region / EMU: Region is filled for salmon while EMU (Eel Management Unit) is filled for eel
- Column Applicable Y/N: N only when species is not present or fisheries of this species is banned.
- Column Index River: See definition on EU MAP and fill with the name of the river/system chosen per each EMU (Eel Management Unit).
- Fishery Independent: Data derived from sources other than commercial and recreational catches. In these two columns, the collection or not of data should be stated (Y/N).
- Method: MS should indicate which method is selected for collecting data. If no data were collected MS should describe in the WP the information (e.g. data, estimates, relative trends, etc.) collected for eel on the abundance of recruits (glass eel), the abundance of the standing stock (yellow eel) and on the number or weight, and sex ratio of emigrating silver eels. For wild salmon and sea trout stocks, information on the abundance of smolt and parr and number of ascending individuals.

Table 12b: Anadromous and catadromous species data collection, yearly planned and achieved

Table 12b. Anadi	romous and catadro	mous data collection in	i fresh water, yearly	planned and achieved							WP Year of submission	
											AR Year	
Member State	Region / EMU	RFMO/RFO/IO	Species	Index River	Life stage	Fishery / Independent data collection	Method	Unit	Planned	Achieved	Biological variables (Y/N)	Comments
FIN	Baltic	NASCO		RIVER AAA	parr	1	electrofishing	n. sites	40	36		.
FIN	Baltic	NASCO	salmon	RIVER AAA	smolt	1	trap	n. smolts	4000	3598		
FIN	Baltic	NASCO	salmon	RIVER AAA	adult	1	counter	n. counter	1	1		
FIN	Baltic	NASCO		N/A	adult	F	sampling	n. samples	100	100	Y	
FIN	Baltic	NASCO	sea trout	RIVER AAA	parr		electrofishing	n. sites	40	36		
FIN	Baltic	NASCO	sea trout	RIVER AAA	smolt		trap	n. smolts	4000	3598		
FIN	Baltic	NASCO	sea trout	RIVER AAA	adult		counter	n. counter	1	1		
FIN	Baltic	NASCO		N/A	adult	F	sampling	n. samples	100	100	Y	
GBR	UK northern	ICES	eel	RIVER EEE	glass	1	trap	n. traps	1	1		
GBR	UK northern	ICES	eel	RIVER EEE	yellow	1	electrofishing	n. sites	20	20		
GBR	UK northern	ICES	eel	RIVER EEE	silver		trap / estimate	n. traps / estimate	1	1		
GBR	UK northern	ICES	eel	N/A	silver	F	sampling	n. samples	40	39	Ý	
GBR	UK northern	ICES		N/A	glass	F	sampling	n. samples	40	39	Ý	
GBR	UK northern	ICES	eel	N/A	yellow	F	sampling	n. samples	40	39	Y	

- If data were planned to be collected (Table 12a) the objective planned must be documented in this table.
- Column Region / EMU: Region is filled for salmon while EMU (Eel Management Unit) is filled for eel
- Column Index River: See Table 12a.
- Column Fishery/ Independent data collection: See Table 12a for definition.
- Column Method: For each method of Table 12a, give the quantitate objective planned for the unit chosen by MS.
- Column Unit: fill the unit (e.g. number of samples, sites, etc.) chosen by MS.

Table 13. Quality Assurance Framework

Tabl	13. Quality Assu	rance Framev	vork													WP Year of	submission	
									1000	1000						AR	Year	
									Sampling	g design	Sampling implementation	Data o	apture	Data S	torage	Data pro	cessing	
M	MS participating in sampling	Multi-lateral agreement	Sampling year	Region	RFMO/RFO/IO	Name of sampling scheme (same as table III.C. I sampling plan description)	Sampling frame (same as table III.C. I sampling plan description)	Sampling year (AR)		n found (also	(VAL)2	Are quality checks applied to validate detailed data?	Where is this documentatio n found (give link to webpage)	In which national database data stored?	international database data stored?	Are process to evaluate data accuracy (bias and precision) documented?	documentatio n found (give link to	Comments
SE	SE	N	2017	NS&EA	ICES	sea-sampling	demersal trawlers		Y	хохох	Y	Y	хжх	FiskData2	RDB- FishFrame	N	XXXX	
SE	SE	N	2017	Baltic	ICES	shore sampling	cod landings		Y	XXXX	Y	Y	xxx	FiskData2	RDB- FishFrame			
SE	SE	N	2017	NS&EA / Baltic	ICES	recreational survey					Υ							

Table 13 is applicable for all sampling schemes except surveys at sea. Use Table 13 to identify were documentation on different steps (design, data capture, data storage and data processing) in the data collection process can be found. If proper documentation presently do not exist please indicate this in the comment field and include when (year) this documentation will be public available. Further use the table to indicate in which databases (national and international) detailed data is stored and if the implementation of the sampling scheme is monitored through collection of non-responses. Names on sampling schemes and strata should be identical to those in Tables 6-8 (and also for eels/salmon and recreational fisheries).

Table 14: Fishing activity variables data collection strategy Transversal variables data collection strategy (former table HIF1)

Region, fishing technique and length class should be aligned to table 9

Dog 14. F	lahing activity variables data colle-	ction strategy												WP	2017-2020
														WP date of submission AR year*	20192010
_							Planned						Achieved	1	1
	Supra region	Region			Metiers (level 6) ⁽⁶⁾	Data collected under control regulation appropriate for scientific use (Yes/No/Insufficient)	Type of data collected under control regulation used to calculate the extimates (3)	Expected coverage of data collected under control regulation (% of flahing trips)	Additional data collection (Y/N)	Data collection scheme ^H	Planned coverage of data collected under complementary data collection (% of flahing trips)	Reference year	Achieved coverage of data collected under control regulation (% of flahing trips)	Achieved coverage of data collected under complementary data collection (% of flahing trips)	Comments
Ц	North Atlantic	North Sea and Esatem Arctic	Effort		All meters		Sales notes	50%	Y	Probability sampling survey	5%		45%	5%	
_	North Adantic	North Sea and Eastern Arctic	Effort	OTB - VL2440	OTBDEFEGGO	Y	Logbooks, VMS data, Sales notes	100%	N.	None	NA.		85%	NA.	
	North Atlantic	North Sea and Eastern Arctic	Landings	FPO - VL0010	All meters		Fishing forms, Sales notes	75%	Y	Indirect survey	10%		80%	10%	
	North Adantic	North Sea and Eastern Arctic	Landings	GTR-VL0010	All meters	N	NA.	NA.	Y	Non probability sampling survey	5%		NA NA	6%	
	North Atlantic	North Sea and Esatem Arctic	Capacity	GNS - VL1218	All meters		Logbooks, Sales notes	90%	Y	Census survey	100%		75%	98%	
ш	North Atlantic	North Sea and Eastern Arctic													
	North Atlantic	North Sea and Eastern Arctic													
	North Atlantic	North Sea and Eastern Arctic													
_	North Adantic	North Sea and Eastern Arctic													
	North Atlantic	North Sea and Eastern Arctic													
	North Atlantic	North Sea and Eastern Arctic													
_	North Atlantic	North Sea and Esatem Arctic													
=	North Atlantic	North Sea and Eastern Arctic													
_	North Adantic	North Sea and Eastern Arctic													
	fedierranean Sea and Black Sea	Mediterranean Sea and Black Sea													
	fediterranean Sea and Black Sea	Mediteranean Sea and Black Sea													
	fediterranean Sea and Black Sea	Mediterranean Sea and Black Sea													
	fediterranean Sea and Black Sea	Mediterranean Sea and Black Sea													
	Rediterranean Sea and Black Sea	Mediteranean Sea and Black Sea													
		Mediterranean Sea and Black Sea													
	fediterranean Sea and Black Sea	Mediteranean Sea and Black Sea													
	fediterranean Sea and Black Sea														

The transversal variables are listed in Table 5 of new EU MAP. Data sources (e.g. logbooks, landings and effort declarations, census, surveys etc.) should be clearly stated for each variable. Where survey work is being undertaken, concise details should be given about

Type of data collection

Target and frame population

Data sources

Sampling frame and allocation scheme

Estimation

MS should describe methodologies, including conversion factors and the approach followed to calculate annual average prices per species (it is recommended to use weighted averages), to derive final estimates. MS may provide detailed calculation procedures, including statistical ones, in an annex. MS shall describe specific actions for fleet segments, geographical areas and/or fish quantities landed not covered under the Control Regulation, from geographical areas. MS shall provide estimates based on representative samples at the lowest relevant geographical level. Supra-region, fishing technique and length class should be aligned to Table 15.

The fishing activity variables are listed in Table 5 of the EU MAP. The data sources either control regulation or complimentary data collection should be clearly stated for each variable group or variable in the case different sources should be used within a specific variable group. For each of these data sources, the planned coverage percentage, estimated on the basis of fishing trips, should be provided as quality assurance and quality control framework indicators. MS should describe the methodologies used: to cross-validate the different sources of data, to estimate the value of landings, the average price (it is recommended to use weighted averages, trip by trip) and to collect the complimentary data (sample plan methodology, type of data collected, frequency of collection, etc.)

MS should describe the methodology followed to derive final estimates, whether it is in-line with guidance/best practices across EU or if a specific approach is being used MS may provide detailed calculation procedures, including statistical ones, in an Annex. MS shall describe specific actions for fleet segments, geographical areas and/or fish quantities landed not covered under the Control Regulation, from geographical areas. MS shall provide estimates based on representative samples at the lowest relevant geographical level.

Table 15. Population segments for collection of economic data

ESP

	WP WP date of submission AR year*	2017-2020 31/10/2016
ta collection me (b)	Planned sample rate % (c)	Comments
Sample Survey		
ility Sample		

Note: Please ensure data for active and inactive vessels are presented separately

Note: Please ensure data for active and inactive vessels are presented separately.
(a) put an asterisk in the case the segment has been clustered with other segment(s)
(b) A - Census; B - Probability Sample Survey; C - Non-Probability Sample Survey; D-Indirect survey [In case the variable is not directly collected but estimated, Indirect survey is applied. In that case, unther explanation on the data collection scheme and estimation method is provided in the Work plan text.]
(c) planned sample can be modified based on updated information on the total population (fleet register)

* year of submission is next after implementation. Just keep reporting year.

The Supra regions are listed in Table 6b of the EU MAP. In case there are any differences in data collection schemes between national regions or supra regions MS should provide information about it. Fishing technique and length class should be linked to table 8. MS should describe how the population is defined and list of active vessels is established. Some of economic variables should be collected for active and inactive vessels, therefore inactive fleets should be included in the table.

Planned

The Planned Sample rate (%) should be based on the official fleet population, which defines as in vessels included in the Fleet Register on the 31st of December and any active vessel fishing at least one day during the year. Table 15 should include full list of the economic variables from Table 6 of new EU MAP.

In case when for some variables data collection has not implemented the column 'Planned sample rate (%)' should be filled in with 'NO'.

MS should explain if there are any confidentiality issues. In case if country is using clustering for data collection or data submission MS should explain the clustering scheme. In cases clustering is used for data collection purposes MS should indicate cluster name (clustering schemes and description provided at Methodological Guidelines). The segment should be marked with an asterisk in the table, in case the segment has been clustered with other segment for data collection purposes.

The economic variables are listed in Table 6 of new EU MAP. The social variables are listed in Table 7 of new EU MAP. Data sources should be clearly stated for each variable. Describe how the consistency of data coming from different data sources will be ensured. Where survey work is being undertaken, concise details should be given in the Annex about:

- Data sources
- Type of data collection
- Target and frame population
- Sampling frame and allocation scheme
- Estimation procedures
- Data quality

Table 16a. General overview of aquaculture activities

Economic variables to be collected are indicated in Table 8 of the new EU MAP, according to the sector segmentation of Table 10 of the new EU MAP

FΝ 15

Table 16a.	. General overview of aquaculture a	ectivities										WP date of submission AR year*	2017-2020 31/10/2016
	Species Groups		Fish culture techniques							Shell	fish-culture tech		
MS		ponds	tanks and raceways	Enclosures and pens	Recirculation systems	Other methods	Cages	Hatcheries and nurseries	Rafts	Long line	Bottom	Other	Polyculture
	Salmon												
	Trout												
	Sea bass & Sea bream												
	Carp												
	Tuna												
	Eel												
	Eggs for human consumption												
	Other fresh water fish												
	Other marine fish												
	Mussel												
	Oyster												
	Clam												
	Crustaceans												
	Other molluscs												
	Other shellfish												
	Other aquatic organisms												
	Multispecies												
	Seaweeds												

Use this section and Table 16a to give a general and concise description of the MS's aquaculture sector. Enter 'Yes' or 'No' in the appropriate cells, regardless of the quantities produced. If quantities produced by a certain segment are too small to justify any sampling activities and identified it with NS (no sampling) in brackets behind "Yes" in the respective cell.



Table 16b. Population segments for collection of aquaculture data

Table 16b. Population segments for collection of aquaculture data

WP	2017-2020
WP date of submission	31/10/2016
AR year*	

					AR year*	
MS			Planne	d		
IVIS	Techniques	Species group	Variables Data source		Type of data collection scheme (a)	Planned sample rate % (b)
DEU	Land based farms - Hatcheries and Nurseries-	other marine fish	Turnover	Financial accounts	A - Census	
DEU	Land based farms - On growing	sea bass & sea bream	Energy costs	questionnaires	B - Probability Sample Survey	
DEU	Cages	salmon	Energy costs	questionnaires	C - Non-Probability Sample Survey	

(a) A - Census; B - Probability Sample Survey; C - Non-Probability Sample Survey; D-Indirect survey [In case the variable is not directly collected but estimated, Indirect survey is applied. In that case, further explanation on the data collection scheme and estimation method is provided in the Work plan text.

Follow the Table 16a to stratify the population for the Table 16b. The enterprises should be segmented according to their main farming technique. In this view, describe the criteria used to identify the main farming technique (e.g. on the basis of turnover, production). The population is all enterprises whose primary activity is defined according to the EUROSTAT definition under NACE Code 03.21 and 03.22 and who operate for profit. Economic data shall be collected on annual basis. In case additional sources (e.g. veterinary register, aquaculture licences register, etc.) are to be used to adjust the population, MS shall explain the procedure used. Specify data collection for variables not covered by the ESTAT or for which additional sampling is required.

Table 16b should include full list of the economic variables from Table 8 of new EU MAP. Present the planned sample rate (%) in Table 16b. In case when for some variables data collection has not implemented the column 'Planned sample rate (%)' should be filled in with 'NO'.

Data sources should be clearly stated for each variable. Describe how the consistency of data coming from different data sources will be ensured. Where survey work is being undertaken, concise details should be given in the Annex about:

- Data sources
- Type of data collection
- Target and frame population
- Sampling frame and allocation scheme
- Estimation procedures
- Data quality

Table 17: Processing industry: Population segments for collection of economic data

Table 17. Pr	ocessing industry: Population	segments for collection of	r economic data		WP date of submission AR year*	31/10/2016
MS	Segment (b)	Variables	Planned Data sources	Type of data collection scheme (a)	Planned sample rate % (b)	Comments
ES	Companies <= 10	Turnover	financial accounts	B - Probability Sample Survey		
ES	Companies 11-49	Other operational c	questionnaires	B - Probability Sample Survey		
ES	Companies 50-250	Other operational c	questionnaires	A - Census		
ES	Companies <=250	Other income	questionnaires	B - Probability Sample Survey		
	D. Dankahilita Canada Canada					

Census; B - Probability Sample Survey; C - Non-Probability Sample Survey; D-Indirect survey [In case the variable is not directly collected but estimated, Indirect (b) planned sample can be modified based on updated information on the total population (fleet register)

year of submission is next after implementation. Just keep reporting year.

The economic and variables for the processing industry sector for companies < 10 employees and companies whose main activity is not fish processing are listed in Table 11 of new EU MAP. The population shall refer to all enterprises whose main activity is defined according to the EUROTAT definition under NACE Code 10.20: 'products'; "Processing and preserving of fish, crustaceans

FΝ 17

⁽b) planned sample can be modified based on updated information on the total population (fleet register)

year of submission is next after implementation. Just keep reporting year

and molluscs." For those enterprises that carry out fish processing but not as a main activity, it is also mandatory to provide information on population. Specify data collection for variables not covered by the ESTAT or for which additional sampling is required. If segmentation is to be used the criteria for it should be number of persons employed. The following segmentation are recommended: companies <= 10; companies 11-49; companies 50-250; companies <= 250.

Table 17 should include full list of the economic variables. Present the planned sample rate (%). In case when for some variables data collection has not implemented the column 'Planned sample rate (%)' should be filled in with 'NO'.

Data sources should be clearly stated for each variable. Describe how the consistency of data coming from different data sources will be ensured. Where survey work is being undertaken, concise details should be given in the Annex about:

- Data sources
- Type of data collection
- Target and frame population
- Sampling frame and allocation scheme
- Estimation procedures
- Data quality

Table 18a: List of surveys-at-sea

Table 18a.	List of surveys-at-se	ist of surveys-at-sea										WP year of submission				ion				
							Planned								Achieved		AR year			
MS	Name of Survey	Acronym (as in EU MAP*)	Mandatory (y/n)	Agreed at RCG level	Area(s) covered	Period (Month)	Frequency	Days at sea planned	Type of Sampling activities	Planned target	Мар	Relevant international planning group - RFMO/RFO/IO	Name of the international database	Sampling year (AR)	Achieved Days at sea	Achieved Target	% achievement no days A/P %	% achievement target A/P %	Deviation from mandatory list (spatial)	Comments
NLD	Demersal Young Fish Survey				IVc	Sept-Oct	Annual	10	Fish Hauls	33	Fig 7.1	ICES PGIPS			12	37	120%	112%		
NLD	NS Herring Acoustic Survey				Illa, IV	July	Annual	15	Echo Nm	50	Fig 7.2	ICES PGIPS			13	110	87%	220%		
NLD	NS Herring Acoustic Survey				Illa, IV	July	х	15	Plankton hauls	15	Fig 7.2	ICES PGIPS			15	14	100%	93%		
										0000		A10000 - 1000								

Name of the variable	Guidelines
MS	Member State
Name of survey	Name of the survey. For mandatory surveys it should be the same name included in EU-MAP table 12
Acronym	Acronym of the survey. For mandatory surveys it should be the same acronym included in EU-MAP table 12
Mandatory (y/n)	Is the survey included in table 12?: Y/N
Agreed at RCG level	Is the table agreed at RCG level?: Y/N
Area(s) covered	Area planned to be covered. For mandatory surveys it should be the same areas included in EU-MAP table 12
Period (Month)	Time period (in months) planned to be covered. For mandatory surveys it should be the same time period included in EU-MAP table 12
Frequency	Frequency of the survey: Annual/Biennial/Triennial
Days at sea planned	Days at sea planned
Type of Sampling activities	Type of core sampling activities. Core sampling activities are those agreeded in the relevant group in charge of planning the survey, as opposed to additional sampling activities. Include one separate line for each type os fampling activities. MS are prompted to use the categories below and add new ones only if necessary: Categories: Fish hauls, CTD, plankton hauls, Echo num (input needed to cover as much as possible all types of sampling activities)
Planned target	Number of planned sampling activities
<u>Map</u>	Reference to the map
Relevant international planning group - RFMO/RFO/IO Name of the international	Relevant international group in charge of planning the survey and its corresponding RFMO/RFO/IO Is there an international database?: Y/N. This applies to the existence of an international data
database	base, not to the fact that data are, or are not, uploaded
Sampling year (AR)	Sampling year

Achieved Days at sea	Achieved Days at sea
Achieved Target	Number of achieved sampling activities
% achievement no days A/P	<u>Formula</u>
% achievement target A/P	<u>Formula</u>
<u>%</u> Deviation from mandatory list	Is there any deviation in the spatial coverage planned? If no: N. If yes: Areas covered in the
7 (1.4)	survey
Deviation from mandatory list	Is there any deviation in the temporal coverage planned? If no: N. If yes: Time period (in months) covered in the survey
(temporal) Comments	Any further comment

Table 18b: Survey data collection and dissemination

Table 18b. Survey data collection and dissemination	Table 18b.	Survey	lata collection	and dissemination
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able 18	b. Survey data collect	ion and dissemination					WP year of submission AR year	
MS	Name of survey	Acronym (as EU MAP*)	Type of data collected	Core/ additional variable	Used as basis for Advice	Upload in international database (y/n)	Other data dissemination	Comments
NLD	North Sea IBTS	IBTS_NS_Q1	Biological data for Cod IVa	С	У	у		
NLD	North Sea IBTS	IBTS_NS_Q1	Biological data for Sprat IVa	С	У	у		
NLD	North Sea IBTS	IBTS_NS_Q1	Herring Larvae	С	у	<u> </u>		A
NLD	North Sea IBTS	IBTS_NS_Q1	CTD by Haul	A		у		7
NLD	North Sea IBTS	IBTS_NS_Q1	Litter items in the trawl	A			sent to OSPAR	
NLD	North Sea IBTS	IBTS_NS_Q1	Benthos in the trawl	Α				
NLD	Internation Blue whiting Acoustic survey	BWAS	Blue whiting acoustic/biological data	С	y	n		
NLD	Internation Blue whiting survey	BWAS	Marine Mammal observations	А			sent to ASCOBANS	
NLD	International Mackerel and Horse Mackerel Egg Survey	MEGS	Mackerel Egg production	С	у			
NLD	International Mackerel and Horse Mackerel Egg Survey	MEGS	CTD by Haul	С	у			
ITA	Mediterranean international bottom trawl survey	MEDITS	biological data for Horse Mackerel	С	V			
ITA	Mediterranean international bottom trawl survey	MEDITS	biological data for striped red Mullet	С	у			

Name of the variable	Guidelines
Name of survey	Name of the survey. For mandatory surveys it should be the same name included in EU-MAP table 12
Acronym (as EU MAP*)	Acronym of the survey. For mandatory surveys it should be the same acronym included in EU-MAP table 12
Type of data collected	Type of data collected. Include one separate line for each type of data collected. MS are prompted to use the categories below and add new ones only if necessary: Biological data for a given stock, larvae data for a given stock, egg production for a given stock, CTD by haul, litter by haul, marina mammal observations, benthos in the trawl in the case of multispecies surveys, different stocks may be grouped (input needed to cover as much as possible all types of sampling activities)
Core/additional variable	Core variables are those resulting from core sampling activities driving the survey design. Additional variables are all the rest
<u>Used as basis of Advice</u>	Are these data used as basis for Advice?
Upload in international database (y/n) Other data dissemination	Are these data uploaded in international data bases? Y/N/NA. Use NA if an international data base is not available Are these data disseminated in any other way, apart from international data base? If no: N. If yes: especify the where it has been disseminated (examples missing)
Comments	Any further comments

Table 19. Data transmission

Table '	19. Data trai	nsmission		WP year of submiss	ion
				AR year	
MS	End-user	Expert group, data call, or data programe (RFMO/RFO/IO)	Year of the data call	Reference(s) to WP	Comments
FRA	ICCAT	TASK Ib			
FRA	GFCM				

Table 20. Data availability

able 20. [Data availability					WP WP date of submission AR year*	2017-2020 31/10/2016
				PLANNED			
MS	Data set	Module	Variable group	Year of NP implementation	Reference year **	Final data available after	Comments
SWE	Fleet economic		Revenue/costs	N	N-1	N+1, March 1	
SWE	Aquaculture economic		all	N	N-1	N+1, March 1	
SWE	Fishing Activity Variable		capacity	N	N	N+1, January 31	
SWE	Fishing Activity Variable		landings	N	N	N+1, March 31	
SWE	Fish processing economic		all	N	N-2	N+1, November 1	

^{*} year of submission is next after implementation. Just keep reporting year.
** of the data collected

Table 21: Planned regional and international co-ordination

Table 21. Planned and achieved regional and international co-ordination						2017-2020 31/10/2016**
MS	Acronym	name of meeting	RFMO/RFO/IO	Planned MS participation	Achieved MS participation	Comments
SWE	RCM Med			X		
SWE	WGNSSK		ICES	X		
SWE	MEDITS			X		

^{*} year of submission is next after implementation. Just keep reporting year.

** For the version control. Could be automated.

Table 22: Follow-up of recommendations and agreements

Table 22. Follow-up of recommendations and agreements								WP date of submission AR year*	2017-2020 31/10/2016**
MS	Region	RFMO/RFO/IO	Source	Section	Topic	Recommendation number	Recommendation/Agreement	Follow-up action	Comments
SWE	North Atlantic		LM 2014		Metier related variables				
LVA	Baltic		STECF 14-13	VII					
				III.C, III.E					
				III.F					
				all					
<u> </u>									

Table 23: Bi- and multilateral agreements

23. Bi- and multilate	rai agreements							2017-2020 31/10/2016**
MSs	Contact persons	content	coordination	description of sampling / sampling protocol / sampling intensity	data transmission	access to vessels	validity	Comments
DE - DK	name and email address by MS participating	a) DE vessels landing for first sale in DK to be covered under DE NP. b) DK vessels landing for first sale in DE to be covered under DK NP.	NA	Length and age of discards and landings, in accordance with the respective NP. Levels and coverage of sampling to be as agreed at the annual RCMs Baltic and NS&EA.	DE/DK responsible for submitting data from each own vessels to the respective end-users and to each other.	country responsible for sampling ensures access to vessels	according to NP 2011-2013	
r - DE - LV - NL - PL		DE, LV, LT, NL, P-L to cooperate in the biological data collection on pelagic fisheries in CECAF waters in 2012–2013 and 2014-2015 (new extension).	will contract independent contractor 'Corten Marine Research' (CMR) as agent between NL and IMROP, the Mauritanian Fisheries Research Institute. CMR will hire	follow the sampling protocol as described in "Biological Data Collection of pelagic fisheries in CECAF waters in compliance		Each Partner ensures access to its fleet for Mauritanian observers under this agreement. Denied access to vessels does not exempt a Partner from legal or financial obligations.	This agreement commences on January 1, 2012. With exception of financial obligations, it ends on December 31, 2013. It is subject to dissolve prior to this date in case the pelagic fishery in the CECAF area by EU vessels closes. Eventual remaining contributions will be pito rat reimbursed to Parities. The agreement was extended to a new end date: 31 December 2015	



WP Annex (for economic data):

Data sources

Provide a list of data sources used (logbook, sales notes, accounts, etc.) and a description of each data source. Describe how the consistency of data coming from different data sources will be ensured. If a questionnaire is going to be used, a copy of this may be included in an annex to the WP.

Type of data collection scheme

Indicate in the Table which type of data collection is to be applied for each fleet segment and for each economic variable as listed in Table 6 of EU MAP. A text description should be provided per each type of data collection scheme.

Four different types of data collection schemes could be used for data collection:

- A) Census, which attempts to collect data from all members of a population. This would include collection of data from administrative records, as well as other cases in which data are derived from sources originally compiled for non-statistical purposes.
- B) Probability Sample Survey (PSS), in which data are collected from a sample of a population members randomly selected.
- C) Non-Probability Sample Survey, in which data are collected from a sample of population members not randomly selected.
- D) Indirect survey. In case the variable is not directly collected but estimated, indirect survey is applied.

Target and frame population

A description of the sampling frame should be provided if data are to be collected through a Probability Sample Survey or/and Non-Probability Sample Survey.

Type of sampling strategy.

Describe the selection of sampling units and the type of sampling strategy used (e.g., simple random sampling, systematic sampling, sampling with PSS, multiple stage sampling, etc.)

Further stratification within fleet segment.

Describe if fleet segments have been divided into subsets (strata) before the selection of a sample. Define what parameters have been used for stratification. Determine the sample size for each fleet segment. Explain which targets are used to determine the sample size and why these targets have been chosen.

Sample evolution over time, rotational groups.

In the case where rotation will be applied to substitute non-responsive units, this should be clearly described and the consequences for the estimates should be discussed.

Describe any projected changes in sample size over time and should report the number of sample units that will be substituted from one year to another.

Estimation

<u>Information on planned methodologies to derive final estimates from data collected (sample) should be given for each variable.</u>

Estimation methods from sample to population.

Describe the type of estimators to be used according to the type of sampling strategy (for example, Horvitz-Thompson or Hansen-Hurwitz estimators). Describe the planned estimation procedures, including the nature of any additional information used, e.g. value of landings, effort and etc. indicators used for extrapolation of the results from the sample.

Imputation of non-responses/Non-response adjustments.

In the case of a census with non-responses, variables should be estimated using models described in the methodological report (Annual Report). Methods used to evaluate the accuracy of these estimates should also be discussed under Section data quality evaluation.

Describe the statistical models used, e.g., regression analysis, adjustments of raising actors, etc.

Where substitution is applied in cases of unit non-responses, the following information should be provided:

- method of selection of substitutes;
- the main characteristics of substituted units compared to original units.

Data quality evaluation

A description should be provided for each type of data collection scheme.

Describe the methods to assess the variability of the estimates and to assess the bias derived from non-responses and from the use of models in the case of non-probability sampling. MS is invited to refer to the relevant guidelines where these terms are defined and explained.

Use the table to give further details on the methods to be used to assess the bias derived from non-responses and from the use of models in case of non-probability sampling. Information on data quality evaluation depends on the type of data collection and on the type of error. Methods used have to be described in the text following relevant Guidelines provided within the Quality Assurance Framework (QAF).

In case a MS is using additional quality insurance procedures, they should be described in the WP.

Two types of error should be distinguished: bias and variability.

Derogations and non-conformities

Justify any derogation requested and any non-conformity with the requirements of the EU MAP and Methodological Guidelines provided by PGECON. When relevant, this justification should be based on scientific evidence. Note that under the EU MAP, there are no provisions for the exclusion of any part of the population from data collection (by means of thresholds, e.g. fishing effort, quantities landed, revenues, etc.).

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