Report of the
Regional Co-ordination Group Meeting for the
Mediterranean and Black Sea 2019

24/09/2019 - 26/09/2019

Qawra, Malta 2019

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Executive Summary

The RCG Mediterranean and Black Sea (RCG MED & BS) was held in Qawra, Malta, from 24 to 26 September 2019. RCG MED&BS appreciated the facilities offered by Malta. The availability of SharePoint offered by ICES proved to be very efficient in organizing the work before, during and after the meeting.

The 3rd RCG MED & BS was attended by the National Correspondents and/or their delegates from the countries of the competent area as follows: Bulgaria, Croatia, Cyprus, Greece, France, Italy, Malta, Romania, Slovenia and Spain. During some points of the agenda also France national Correspondents participated via teleconference. The meeting was also attended by the representatives of the EU-DG Mare, the FAO-GFCM Secretariat, the chairs of MEDITS and MEDIAS steering committees and the STREAM project coordinator.

In 2019 an official data call was launched by the chair of the RCG MED & BS, requesting data on landings, effort, value and biological data for the period 2016-2018, for addressing the following:

- Review and update the landing template for the Mediterranean and for the Black Sea;
- Ranking system for the Mediterranean and Black Sea based on the list of métiers agreed at regional level (RCM Med & BS 2009 and 2010).

The relevant Data Call was announced in August to all National Correspondents, with a deadline on the 5th of September, 2019. The data was required to be submitted in two different data files similar with previous Data Calls.

Data were submitted by all Member States in the Mediterranean Sea and the Black Sea. The available data were reviewed by the chairs of RCG MED & BS and PG MED, and clarifications on data values and coding were received whenever requested. The update of the landing template and the results from the ranking system of the metiers were provided to the Group.

RCG MED & BS 2019 summarized its work in 10 recommendations:

- Establishment of regional sampling plan for small pelagic fish in the Adriatic Sea.
- Continuation of the workshop for RF.
- Speeding up the establishment of a scientific network for sampling optimization.
- Training workshop on the use of the sampling optimization tools developed under STREAM project.
- Data quality checks developed under the STREAM project.
- Fish stomach content analysis.
- Biological parameters – ageing protocols.
- Age reading workshop – Black Sea.
- Continuation of Setting up of a Regional Database (RDB) for the RCG MED & BS.
- Training workshop on PETS identification.

The Agenda with ToRs and the participants are in Annex I and Annex II respectively. Recommendations are listed in Annex III and they summarize the work, discussions and decisions of the RCG MED & BS 2019.

The 2020 meeting of the RCG MED & BS will be in Paris France from 6th to 9th of April. For 2020 the meetings of the RCG Med & BS will be chaired by Ms Simona Nicheva NC of Bulgaria and co-chaired by Ivana Vukov from Croatia.

1. Review progress since 2018 RCG's and 2018- 2019 Liaison meetings (15th and 16th reports) (TOR1)

1.1. Feed-back from 15th and 16th Liaison meetings

The RCG Med & BS began its work with the feedback from the 15th and 16th Liaison meetings that was given by Ms Simona Nicheva and Mr Apostolos Karagiannakos respectively. The main points are given below. The relevant presentations are in Annex VIII.

15th Liaison Meeting (1-2 October 2018)

- ICES presented the development of a Stock Information Database (SID) and Regional database and estimation system (RDB-ES).
- GFCM presented the Data Collection Reference Framework (DCRF).
- The DG MARE International Unit B2 presented the view of the tuna RFMOs, and their means to communicate on data quality.
- The COM (JRC) also presented an online platform under development to address the data transmission failures (DTF), in connection with the end-user's feedback on data quality.
- The Recommendations from the MED&BS RCG were presented in the LM –
    - Amendment of the Rules of procedure for the RCG Med&BS;
    - Mesozooplankton sampling in MEDIAS surveys;
    - Establishment of Intersessional sub groups for the RCG Med&BS
    - Setting up of a Regional Database for the RCG Med&BS

16th Liaison Meeting (3-4 September 2019)

- RCG Med & BS set reservations to all Sub-Groups' reports (recreational fishery, Regional Database and data for end users).
- RCG Med & BS meeting report for EU MAP revision (Madrid, 16 September 2019) may be considered by the STECF as final. It has been shaped in the presence of all the Mediterranean MS national correspondents and after its shaping no further comments have been flagged by any MS (this does not mean that every Mediterranean MS is committed to follow this report during the negotiations for the EU MAP reform proposal). The formal Commission's proposal has not yet been formulated.
- Co-operation between RCGs is needed when dealing with the same issues in different marine areas. It is vital for the Sub-Groups to work on a common basis.
- ICCAT will launch an electronic platform for data entry next March.
- ICES highlighted the issue of confidentiality of the VMS data.
- EC stressed that actions should be taken to ensure the funding of the Regional Database. It is not clearly understood whether the EC will finance all RDBs or objections raised about the northern countries' RCGs, which are planning to upgrade their RDB to RDBES.
- JRC will compare the data submitted to the Med data call with that of the FDI.

The main points of the RGC Decision meeting (05.09.19) and NC meeting (06.09.2019) were presented by Mr Apostolos Karagiannakos followed by discussion on the plenary of the RCG Med & BS 2019.

- EC should report on the implementation of Reg. (EC) 1004/2017 and ask all MS views before it's issue.
- EU MAP reform presented by EC: The EU MAP will remain as it stands for the period 2020-21. Time is needed for its reform, MS will maybe accordingly adjust their WP at least 2 months before January 1st, 2021. There is a possibility that the reformed EU MAP will be adopted before 2021.
- STECF will provide its view on the reform in November. France asked on what terms of reference (ToRs) STECF will provide its scientific advice. Then, each MS will give its opinion on the issues/ points that need to be corrected/ modified and what it is expected by these corrections. This will be done by the Experts' Committee (for the delegated act) and by the Committee for Fisheries & Aquaculture (for the implementing act). It is possible that both legislative acts' proposals will be delivered in November. The reform is not expected to include any "revolutionary" changes; it will rather introduce a more balancing scheme between the need for data and the data-collection attainment. The regional dimension of the reformed EU MAP will play a crucial role.
- WP for 2020-2021 will have to be re-submitted for legal purposes, although a MS may not have submitted any changes to its WP. Relevant forms for the WP have already sent, if there are any changes compared to the previous one, they should be submitted summarized (in bullet points). ATTENTION to the WP to refer to the new legal framework for the extension 2020-2021.
- STECF will provide its advice on surveys by using the Decision Support Tool (DST), a "yes or no" tool which will facilitate the decision on whether the surveys will be mandatory or not. It will also take into account the needs for sampling for environmental purposes, in accordance with the Maritime Strategy indicators.
- The adoption of the new **Regulation on Technical Measures**, is expected to **increase the need for data-collection** mainly for the implementation of the landing obligation, the recreational fishery and the risk assessments for PETS by-catch. The sampling intensity should be implemented on the 5-10% of the fishing vessels (Reg. for Techn. Measures). There have been reactions on this issue mainly from the northern MS. Based on the scientific advice, there will be a possibility to modify this aspect in the Reg. for the technical measures. These will also be foreseen by the reformed EU MAP.
- Denmark raised the issue of **personal data protection**. The newly issued General Data Protection Regulation (GDPR) (EU) 2016/679 prohibits the storage of electronic logbooks and VMS data for more than 5 years, which provokes serious problems for the Data Collection Program. For this reason, Denmark modifies (rather anonymize) personal data to be able to maintain them for more than 5 years. There will also be an issue/ problem with the video cameras being operated to fishing vessels for the control of the landing obligation.
- **ARs and data transmission issues**: STECF initially assesses data transmissions in data calls by using the **Data Transmission Monitoring Tool (DTMT)** located at the JRC. In the context of EMFF, EC evaluates the program being implemented by the MS i.e., their performance by

using 4-5 criteria including data transmission failures, participation in Working Groups, in the RCGs and the National Coordination Meeting. EC encourages MS for additional criteria to be proposed. MS failure to implement the Program is mainly attributed to data transmission failure.

One point raised during the Liaison Meeting (LM) was the requirement for a sampling intensity of 5-10% of vessels set the by Regulation for Technical measures. The group discussed briefly their views on this measure, however the Commission clarified that the regulation does not directly refer to the EU-MAP and that since this is a new regulation its implementation still needs to be looked into.

The group discussed the new format and timing of the LM and RCG meeting. During 2019, the LM was held in September over two days and it was followed by a one-day decision meeting for which all National Correspondents (NCs) attended. The idea behind this format was to have technical meetings throughout the year and for NCs to discuss and endorse the recommendations emerging from these meetings during this one-day decision meeting in Brussels. The Commission commented that overall, there was a positive reaction to this new format and that it was recommended to maintain it for the next years.

In 2019, the RCG Med & BS did not present any recommendations at the LM since the RCG meeting was held after the LM and recommendations from the inter-sessional meetings had to be endorsed by the NCs through written procedure. Therefore, the group discussed the best period to hold the RCG meeting and different possibilities were considered. The LM does not endorse recommendations, therefore once recommendations are endorsed by the RCG they may be implemented in the WP, even if they have not been presented at the LM. Draft recommendations from the inter-sessional RCG meeting may also be presented at the LM and they can then be discussed and potentially endorsed during the decision meeting by the NCs. The group agreed that the rules of procedure and the role of this decision meeting would need to be discussed further and that the recommendations presented in LM should first be endorsed by the RCG in plenary.

Following the discussion, the group suggested that the RCG meeting is held in April or in the first week of September. Holding the meeting in April would allow enough data from the group to review and endorse recommendations.

1.2. Revision of RCGMED & BS 2018 recommendations

RCG MED & BS 2019 reviewed the recommendations produced from the RCM MED & BS 2018 and their timeframe for the fulfilment was until the end of 2019.

Amendment of the Rules of procedure for the RCG MED & BS	
RCG MED & BS 2018 **Recommendation 1**	RCG MED&BS 2018 recommend the follow up of the amended draft text of the Rules of Procedure as attached to this report (Annex II), which was reviewed and discussed during a designated sub group and finally in the plenary of the meeting.
Justification	Article 9(5) of EU Regulation 2017/1004 of the EP and of the Council, *on the establishment of a Union framework for the collection, management, and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) 199/2008* (recast).
Follow-up actions needed	The amended draft text containing the agreed RoPs to be discussed at the LM. After LM, a draft text with comments from LM to be circulated to the NCs. When reviewed by the NCs, the final text can then be adopted by written procedure of the RoPs for MED&BS by the end of 2018.
Responsible persons for follow-up actions	The chair of MED&BS 2018 will present the amended draft to LM. The Chair of RCG MED&BS 2018 will circulate the amended draft of the RoPs to all NCs.
Time frame (Deadline)	LM, end of 2018. NC
Comments and Follow up in 2019	The rules of procedures were not amended. The group agreed that the rules of procedure and the role of this decision meeting would need to be discussed further and that the recommendations presented in LM should first be endorsed by the RCG in plenary.

Establishment of Intersessional sub groups for the RCG MED & BS	
RCG MED & BS 2018 **Recommendation 2**	RCG MED&BS 2018 recommends the organization of an ad-hoc workshop on recreational fisheries, along with the creation of two Subgroups: one on Data requirements & data transmission issues and a second Subgroup on sampling stratification and optimization of biological data.
Justification	**Ad-hoc workshop on recreational fisheries:** RCG considers that a subgroup on recreational fisheries already exists under the ICES umbrella (WGRFS), so there is no need to create another one. RCG recalls the work under implementation by GFCM on recreational fisheries and the handbook on data collection methodologies that will be finalized next year. However, RCG MED&BS considers that, according to EUMAP, MS shall provide catch estimates from existing recreational fishery surveys, including those carried out under the data collection framework or from an additional pilot study, by the end of 2018. These surveys shall allow assessment of the share of catches from recreational fisheries in relation to commercial catches for all species in a marine region for which recreational catch estimates are required under this multiannual Union programme. EUMAP also requires that the subsequent design and extent of national surveys of recreational fisheries, including any thresholds for data collection, shall be coordinated at marine region level and shall be based on end-user needs. Therefore, RCG MED&BS recommends to organize an ad-hoc workshop on recreational fisheries. **Data transmission issues:** RCG considers the need to establish a permanent subgroup on data requirements and data related regional specificities and issues by end users. The aim of this subgroup is to try to streamline and simplify the process of data transmissions to end-users in order to avoid duplication of reporting of the same type of data. In addition, the sub group should assess DT failures before submission to MS. **Sampling stratification and optimization of biological data:** RCG agrees on the need to set up a network of experts to be trained on statistical tools and R packages on sampling stratification and optimization of biological data. Several interesting tools are being implemented under the STREAM project and two working groups have already been organized by the STREAM project to finalize the tools. The network should enable the use of the tool at a regional level and each MS should nominate experts to be part of the network.
Follow-up actions needed	**Ad-hoc workshop on recreational fisheries:** Review of pilot studies implemented in EU MED&BS MS, Presentation of the outcomes of the STREAM project, Assessment of the share of catches from recreational fisheries in relation to commercial catches for all species in the Mediterranean and in Black Sea, Design of national surveys of recreational fisheries, including list of species and thresholds for data collection for the future EUMAP (2020 and onwards) **Data transmission issues:** The first meeting of the subgroup will be convened in January 2019. RCG considers that, apart from experts

	nominated by each MS, main end users (STECF/JRC, GFCM) and Commission should participate. **Sampling stratification and optimization of biological data:** The network should work in the following months in order to provide final results for presentation and discussion in the next RCG MED&BS 2019.
Responsible persons for follow-up actions	**Ad-hoc workshop on recreational fisheries**: To be decided **Data transmission issues**: Ivana Vukov will coordinate this sub group. **Sampling stratification and optimization of biological data**: To be decided
Time frame (Deadline)	**Ad-hoc workshop on recreational fisheries**: The workshop is planned for the second week of April 2019, Italy. **Data transmission issues**: Continuous work during the year will provide results for presentation and discussion for RCG MED&BS 2019. **Sampling stratification and optimization of biological data**: The network should work in the following months in order to provide final results for presentation and discussion in the next RCG MED&BS 2019.
Comments and Follow up in 2019	The following ISSG were realized in 2019: - Subgroup on data requirements and data transmission issues: Meeting with End-users of Scientific Data, Rome, 12-14 March 2019 (chair: Ivana Vukov); - Workshop on Recreational Fisheries, 15-16 April 2019 (chair: Fabio Grati); The ISSG for sampling stratification and optimization of biological data was postponed for 2020.

Setting up of a Regional Database for the RCG MED & BS	
RCG MED & BS 2018 **Recommendation 3**	RCG MED & BS 2018 considers the development of a regional database as an urgent priority in order to allow for the efficient use of the data received from the official RCG data calls and avoid duplication of work.
Justification	Article 9(3) of EU Regulation 2017/1004 of the EP and of the Council, on the establishment of a Union framework for the collection, management, and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) 199/2008 (recast). *"Regional coordination groups shall aim at developing and implementing procedures, methods, quality assurance and quality control for collecting and processing data with a view to enabling the reliability of scientific advice to be further improved. For that purpose, regional coordination groups shall aim to develop and implement regional databases."*
Follow-up actions needed	NCs will send the two relevant nominations for the Steering Committee (SC) by 10th of October. The SC will convene before the end of 1018 and finalise a roadmap on issues concerning the RDB. Issues to be decided on: Agreement on the level of disaggregation (proposal for submission of anonymised raw data), the legal framework, the best option on who will host, funding opportunities for the maintenance, storage and operational costs.
Responsible persons for follow-up actions	NCs will send the two nominations for the SC within two weeks from the RCG MED & BS 2018. Eirini Mantzouni, Researcher from the Fisheries Research Institute, will act as preliminary chair until the formation of the SC. The SC will then decide upon its final Chair. The Chair of the SC will draft a roadmap of following actions to be performed in order to form the RDB of MED & BS.
Time frame (Deadline)	LM, end of 2019. NC
Comments and Follow up in 2019	All countries sent the nominations and the Steering Committee Meeting for Mediterranean & Black Sea Regional Data Base (Med&BS-RDB) realized in Rome, from 28th to 30th of January 2019.

Mesozooplankton sampling in MEDIAS surveys	
RCG MED & BS 2018 **Recommendation 4**	RCG Med&BS 2018 recommends a sampling on mesozooplankton to be planned and carried out in MEDIAS framework (recall of RCM Med & BS-LP recommendation of 2016).
Justification	The RCG Med&BS considered that the development of a plankton sampling during MEDIAS surveys would be useful in order to have an index of productivity to be associated to small pelagic fish biomass and its spatial distribution. This information is valid as an ecosystem indicator for MSFD, but also as ground truth of acoustic non-target organisms. In addition, plankton sampling will provide new information on pelagic ecosystem, eventually useful for future ecosystem-based management (EBM). The ichthyoplankton fraction of the collected samples could give more information on anchovy (given the survey period) spawning and nursery areas.
Responsible **persons for follow- up actions**	Commission, Liaison Meeting, MS
Time frame **(Deadline)**	Sampling – during MEDIAS surveys
Justification	The RCG Med&BS considered that the development of a plankton sampling during MEDIAS surveys would be useful in order to have an index of productivity to be associated to small pelagic fish biomass and its spatial distribution. This information is valid as an ecosystem indicator for MSFD, but also as ground truth of acoustic non-target organisms. In addition, plankton sampling will provide new information on pelagic ecosystem, eventually useful for future ecosystem-based management (EBM). The ichthyoplankton fraction of the collected samples could give more information on anchovy (given the survey period) spawning and nursery areas.
Comments and Follow up in 2019	The recommendation was endorsed and will be adapted by the groups responsible for MEDIAS survey in each MS.

2. Governance model for the regional coordination group (TOR 2)

- EU MAP revision meeting in Madrid in June;
- Information on DCF legal framework and related legal acts

2.1. EU MAP revision meeting in Madrid in June (by Maria Gonzales)

Ms Maria Gonzalez gave a general overview of the outcomes of this meeting that took place in Madrid from 11 to 12 June. The presentation is available in Annex VIII.

The main goal of the meeting was the participation of the RCG Med & BS in the consultation process of all stakeholders involved in Data Collection launched by DGMARE to design of the new framework of the EU multiannual programme.

In october 2018, DGMARE services triggered the consultation process, circulating the document "*Recommendations for the revision of the Multiannual Union Programme for the collection, management and use of data in the fisheries and aquaculture sectors (EU-MAP), priority issues and outstanding questions*". A questionnaire with a number of questions grouped in biological and socio economic issues was launched in December of 2018 and sent to all relevant end users of data collection as well as the National Correspondents. The final step of the process requires from RCGS to provide their inputs to DGMARE. A first approach was given in the form of intersessional group that met in Gent in May, 2019. The subsequent RCG meetings should review the information received, and propose what is considered according to the specificities of each marine region.

The RCGMed&BS agreed that no capital modifications should be made to the current framework. The group focused in specific comments based in the questionnaire circulated by DGMARE, and no comments on the text of the Decission were made.

The result of the discussions was compiled in the table attached as annex 6 of the report of the *Regional Coordination Group for the Mediterranean and Black Sea – EU MAP Revision (Madrid, 11-12 June 2019)*.

The most discussed topic was the future of the table 1A (Stocks in Union waters). The agreements reached during the meeting were:

- Table 1A should be limited to priority stocks for wich biological data is deemed as mandatory. For the Mediterranean and Black Sea, table 1A would consist of the species Group 1 present in the GFCM-DCRF, the large pelagic species relevant for the Med&BS according to ICCAT recommendations, species under quota and species under subregional management plans.
- To the GFCM Group 1 species thresholds should be applied as usual, and no threshold shall be apply to large pelagics, catadramous species or red coral.
- The list of species may be subject to changes from year to year based on main end users' requirements. The legal text should be flexible.
- The biological parameters and temporal resolution shall be coordinated at marine region level and will be fixed by RCG Med & BS based on end user's needs.

RCG Med & BS concluded that is not prudent to introduce major changes to the current ables. Moreover It considered that more time is needed to process the current pilot studies since some of

them are in progress, and time should be granted to the MS to produce conclusive results. The evaluation of pilot studies implemented in the period 2017-2019 shall most probably take place in November 2020 at the STECF EWG for AWP evaluation.

2.2. COM presentation on the DCF legal framework and related legal acts (by Venetia Kostopoulou)

COM gave a presentation on the revision of the EU Multiannual Programme (EU MAP) and Work Plan template, providing background of the work done so far and outlining the main steps of future work. The presentation is available in Annex VIII The main point are given below:

The EU MAP covers the years 2017 to 2019 and, therefore, expires at the end of this year. The Commission followed a two-step approach: an extension of the existing EU MAP, followed by a revision. The extension was done for the period 2020 – 2021, and, in line with the DCF Recast (Reg 2017/1004), split the EU MAP in two legal acts:

- Commission Delegated Act (EU) 2019/910, on the biological, environmental and socio-economic data
- Commission Implementing Act (EU) 2019/909, with the thresholds for data collection and list of surveys.

Both acts are in force but can be repealed earlier, if the adoption of the revised EU-MAP is finalised during 2020. The new EU MAP will need to abide by this split.

The aim of the revision is to preserve the core requirements of the EU-MAP and to make adjustments on a case-by-case basis, as well as to 'convert' pilot studies into data collection requirements. The preparation for the revision of the EU MAP includes the following steps:

- Consultation with the main stakeholders: in December 2018, RCGs, PGECON and the main end users were asked to provide comments on the revision of the EU MAP. In July 2019, the information received was compiled through *ad hoc* contracts and provided to COM for internal consultation. At the Liaison Meeting and the National Correspondents meeting (3, 4, 6 September 2019, Brussels) the EU MAP revision was discussed with RCGs and MS representatives.
- STECF evaluation: a first brainstorming took place during the STECF EWG 18-18 (5-9 November 2018, Bremerhaven). The STECF EWG 19-05 (13-17 May, Brussels) carried out an evaluation of the mandatory list of surveys at sea. The STECF EWG 19-12 (16-20 September, Brussels) revised the EU MAP and Work Plan template, based on input provided by stakeholders, the COM and STECF EWG 19-05. The draft report will be discussed and finalised at STECF Plenary (11-15 November, Brussels).
- The legal proceedings to adopt the revised EU-MAP Delegated Act and Implementing Act as well as the Work Plan template are expected to take a minimum of 9 months.

The current Work Plans are applicable until the end of 2019. New Work Plans are needed as of 2020.

For the period 2020-2021, the current Work Plan template will be applicable and MS will have to submit a Work Plan by October 31st 2019, to be followed by STECF evaluation and COM adoption. For 2022 and onwards, a new Work Plan template will be adopted. If the new EU-MAP is adopted already in 2020, the new Work Plan will follow.

3. End-user interactions and identification of end-user needs (TOR 3) GFCM

3.1. Feedback from the End-users –

JRC/STECF

Ms Leyla Knittweis made a presentation on the general purpose of data calls, data quality control and validation, data uploading, data handling procedures and data checks by JRC. Extended reference was made to Data Transmission Monitoring (DTM) tool, the automated checks that took place prior to and during data uploading phase, the checks made after the data are stored in the DCF database and the communication with Member States for information on data or resubmission of revised data. The main data checks per data call (economic data, MED & BS data call, FDI data call, aquaculture data call, fish processing industry data call) were also presented (Presentation in Annex VIII). The discussion that followed was regarding ensuring data quality for the Med&BS data call, for which STECF EWGs report the most data transmission issues. It was pointed out that communication with MS on data quality before and during the EWG is crucial and proposed an ad-hoc STECF EWG quality meeting to determine what kind of data validation is needed before the EWG on stock assessment during which there is no time for data checking and corrections.

GFCM

Mr Federico de Rossi, representative of the GFCM, presented relevant GFCM data submission obligations and related data quality indicators (Presentation in Annex VIII).

GFCM fisheries data needs in 2019 were made available on the following link: http://www.fao.org/gfcm/data/calendar/en/. In terms of data quality Mr de Rossi presented the current development of quality indicators (timeliness, completeness, conformity, stability, and consistency) for fisheries data transmitted to the GFCM in line with Recommendation GFCM/41/2017/6 that the GFCM is developing on a dedicated data quality section on the DCRF online platform which has been made available to the CPCs in 2019. Data quality dashboards, for each indicator, have been progressively activated under this section in order to facilitate the consultation of the results during the feasibility phase. The experience gathered in the application of fisheries data quality indicators and the feedbacks received from CPCs by the GFCM Secretariat will be reported to the next sessions of the SAC, CoC and WGBS for review and decision on the way forward. This represents a step forward in terms of providing feedback on data transmission issues to DG MARE. A Workshop on fisheries data submissions and implementation of quality indicators on the DCRF online platform is planned (Feb-March 2020)

The GFCM Secretariat also presented the two manuals to be used as guidelines for relevant mid-term strategy data collection activities, namely the monitoring of discards and the incidental catches of vulnerable species, (Annex IX). The objective of each manual was a harmonized methodological framework for data collection that would be applicable to the realities of different countries and would enable the comparison of data at a regional level. These manuals would be used on a voluntary basis, as reference instruments in the execution of mid-term strategy.

3.2. Feedback from the intersessional subgroup on data transmission issues and data requirements (by Ivana Vukov)

The chair of the ISSG meeting on data transmission issues and data requirement, Mrs Ivana Vukov gave a presentation providing background of the work done so far and outlining the main steps of future work. The presentation is available in Annex VIII The main point are given below:

The Meeting with End-users of Scientific Data was hosted by GFCM at the GFCM headquarters in Rome, Italy, from 12 to 14 March 2019. The meeting was attended by 3 National Correspondents, 7 experts from 5 Member States, 3 GFCM representatives, one fisheries data quality specialist invited by GFCM and one JRC representative. The European Commission did not attend the meeting; however, 3 DG MARE representatives participated by teleconference on 13 March 2019 in regards to point 4 of the agenda. At the beginning of the meeting the chair of the meeting introduced the objectives and expected results of the meeting. Relevant recommendations which are important in terms of the scope of the subgroup were reviewed (RCG Med&BS Recommendations 2017 and 2018 (RCG Med&BS 2017 Recommendations 2, 4, 6, 7 and 8; RCG Med&BS 2018 Recommendation 2). In 2018 the RCG Med&BS noted that the recommendations need follow up but very little progress has been made on this in 2018, therefore the need to speed up the process intersessionally was identified.

The Subgroup was divided into two subgroups where the first subgroup worked on the report and recommendations and the second subgroup assessed the 2018 data transmission issues.

The subgroup classified the issues for 2018 according to the following issue types: not an issue, data issue, recurrent issue, coverage issue, historical coverage issue. The Subgroup analysed data transmission issues per data call in the period from 2014-2018 and concluded that most data transmission issues are related to the Med&BS data call, where the highest number of issues was in 2017. It was concluded that the number of data transmission issues is in high correlation with the ToR of the EWG on stock assessment, i.e. depends on the stocks being analysed. In case there is no stock assessment being performed during the meeting then most probably there will be no issues reported for that specific stock. Such a situation is not ideal if taken into account that other end-users (projects etc.) may eventually use this data.

Main outcomes given in points:

1. Subgroup on DR and DTI on shared folder
2. Next meeting in 2020
3. TOR in Annex 5 of the report (still draft version); will be discussed during the next meeting
4. Recommendations:
    - Data intended for Stock Assessments should be officially transmitted by national authorities only and not by scientific experts.
    - Process of data transmission for the purpose of Stock Assessments should be clarified and formalised.
    - Data transmission in accordance with the DCRF should not be mandatory in case there is no clear purpose on data use e.g. Length data, Maturity data, Size at first maturity.

5. In 2019: forward input to end-user, technical document and registry of data calls.
6. In 2020: DTMT extract from DGMARE; optimisation of FDI and Med&BS; End-users meeting (28th and 30th Jan 2020).
7. Importance of participation of end-users and MS.

4. Regional plans (TOR 4)

- Feedback from EU projects (STREAM; case studies WP3)
- Standardization of ageing procedures for small pelagic in the Adriatic Sea.
- Discussion on possibilities for the establishment of regional sampling plan for small pelagic fish in the Adriatic Sea.

4.1. Feedback from EU projects (STREAM; case studies WP3) (by Isabella Bitetto).

Regarding the STREAM project, the outcomes from certain work packages that have finished or are in progress were presented by the WP leaders. The presentations are available in Annex VIII.

Isabella Bitetto via Skype presented the outcomes of WP 3 (Annex IX) that aims at designing and proposing a regional sampling plan (RSP) for 2019 covering commercial fisheries/stocks/métiers (RSP-CF), taking advantage of the experience of the previous grants (i.e. MARE/2014/19 Med & BS and FishPi).

The main tasks of WP3 were:

3.1. Data Sharing among all Member States of the regions (Med and BS)

3.2. Apply and refine reference (or code) lists to be used by Member States in the region and identify possible solution for data storage system, processing and analysis of the data at regional level.

3.3. Carry out simulations to propose a RSP-CF for 2019.

3.4. Develop rules on how to allocate tasks and costs between Member States and evaluate costs implication for 2019.

For Task 3.1 a data sharing agreement (DSA) identifying the type of data to be shared, the common data format and rules for the use of these data was finalized in collaboration with the Institutes involved in the STREAM project. The DSA has been be signed by most NCs (Cyprus, Italy, Slovenia, Greece, Bulgaria, Romania, Spain), while others have ensured the data delivery though they have not signed the DSA (France, Croatia, Malta). For task 3.2 the RCG Med & BS data call format was update for the storage of primary data from commercial fisheries sampling including additional information in CS and CL tables. Evaluation of the options regarding the hosting of a RDB against three available scenarios was provided, taking into account the current situation, ongoing studies, developments and suggestions as well as needs from STECF, GFCM and ICES working groups. Auxiliary tools (R-scripts) to standardize and ease the procedures for data processing and delivering to specific data calls including the following data transformations were developed. For Task 3.3 a new tool (R scripts) was developed in order to perform analyses on sampling optimization in terms of trips, of number of individuals to be measured, on the number for biological measures and to perform possible scenarios varying number of trips and measured individuals. The task is in progress as the methods and scripts have been finalized while the case studies were being implementing in the two workshops (the 1st for East Mediterranean & Black Sea that run as parallel session with RCG Med 2018 and the 2nd for Western and Central Mediterranean that took place the first week of October. Task 3.4 has not started yet. The final results will be presented during the “Knowledge Exchange Workshop of the STREAM” on March 2019 and can be utilized for WP2020.

The RCG Med & BS noted that a dedicated subgroup formed for sampling optimization would ensure the continuity of the training -especially for all the biological measurements.

Ms Charis Charilaou presented the outcomes of WP7 (Annex IX) that has as a main objective the training of MSs' experts of the region who are involved in data collection, according to their needs. An ad-hoc questionnaire on training needs and mapping of expertise was prepared and circulated during July 2018 to all institutes involved in biological data collection in the region. Feedback was received from 20 institutes from all MSs'. The analysis of questionnaires received showed that the main training needs focus on a) the running of simulations in R for sampling optimisation and running quality checks in R, b) the age reading of certain species, c) the training need on identifying PETS, d) the training need on stomach analysis. Two Workshops were foreseen with collaboration with WP3 (sampling optimization tool and implementation of case studies) and one with WP6 (ALKs and age reading). The compiled list of experts available for providing training will be provided to the RCG Med&BS for addressing training needs in the region.

4.2. Discussion on possibilities for the establishment of regional sampling plan for small pelagic fish in the Adriatic Sea (by Ivana Vukov).

During RCG Med & BS it was presented a proposal for the establishment of a regional sampling plan for small pelagic fish in the Adriatic Sea. The sampling plan was based on the outcomes of STREAM regional grant (MARE/2016/22) identified the most commercially important stocks and fisheries (métiers), beneficial for regional sampling, for which relevant Member States (Italy, Slovenia, Crotia) could share sampling tasks using agreed methodologies, ensuring coherent regional data sets with sufficient quality for the end-user needs, one of which is small pelagic fisheries in the Adriatic Sea (GSA 17 and 18) and the GFCM recommendation GFCM37/2013/1 on a multiannual management plan for small pelagic stocks fisheries. Main objectives for the establishment of the working group is to ensure level play in the area, coordinate activities with third countries (Montenegro, Albania) and FAO AdriaMed and more closely follow management needs in the area (multiannual management plan for fisheries on small pelagic stocks in the GFCM-GSA 17 and 18) in order to harmonize data collection methodologies for fisheries dependent and fisheries independent information. It will be realized in two phases and a close time frame will be applied. The relevant presentation is available in Annex VIII.

4.3 Standardization of ageing procedures for small pelagic in the Adriatic Sea

The initial issue raised was about the differences in the ageing protocols between MEDIAS and biological sampling of anchovy & sardines in the Adriatic. It was further discussed that different scientists/experts responsible for the research surveys and the biological monitoring, might use different age reading protocols for the same species within the same stock unit and at a regional level that may result in different age estimates. It was agreed that all the MSs should follow standardized protocols for age reading and a relevant recommendation was suggested.

4.4. Regional work based on results from 2018 RCG MED & BS Data Call

During the 4th RCM MED 2007, a recommendation came into force stated that "For the purpose of exchanging landings data, as a reference for the selection of species to be included in the biological sampling of the National Programmes, the RCM MED recommends that MS provide the landings data of the previous 3 years required by the DCR during the PGMed meeting, on a common template".

During the RCM MED & BS 2016 it was agreed to continue using the landing templates instead of other sources (Eurostat) for completing Table 1A of the Work Plan; this is because the group considers that they provide the most reliable landings data for scientific use.

For 2019 an official data call was launched by the chair and co-chair of the RCG MED & BS, requesting the following data:

- Data on landings for the period 2016-2018 of the stocks listed in Table 1A of Commission Implementing Decision (EU) 2016/1251, for reviewing and updating the landing template for the Mediterranean and for the Black Sea.
- Data-t-on landings, effort and value by metier for the period 2016-2018, where metiers are selected from the regionally agreed list of metiers with specified coding, for using a ranking system for the Mediterranean and Black Sea.

The relevant Data Call was announced in August to all National Correspondents, with a deadline on the 16th of September, 2019. The data was required to be submitted in two different data files similar with previous Data Calls (**Annexes V, VI, VII).**

Data were submitted by all Member States in the Mediterranean Sea and the Black Sea. The available data were reviewed and analysed by Eirini Mantzouni and Charis Charilaou.

Analysis of landing templates in Mediterranean and Black Sea

The produced landing templates in landings (tons) and in contribution (%) of Member States in the Mediterranean and Black Sea, for the period 2016-2018, are provided separately for non-elasmobranch and elasmobranch species. It is noted that for Greece the 2017 available landings data are not complete, therefore for the analysis only the 2016 and 2018 data from Greece were used.

Tables 4.4.1 and 4.4.2 refer to non-elasmobranch species, while Tables 4.4.3 and 4.4.4 refer to elasmobranchs. According to Table 1A of Decision (EU) 2016/1251, all commercial sharks, rays and skates should be reported at species level; however, the available landings data were not always disaggregated by species.

Table 4.4.1: Average landings by Member State (in tons) over the 2016-2018 period, for species included in Table 1A of Commission Decision 2016/1251 concerning the Mediterranean and Black Sea.

Species		Area	BGR	CYP	ESP	FRA	GRC	HRV	ITA	MLT	ROU	SVN	Total
Anguilla anguilla	European Eel	all areas in the Med	0	0	17.06	907.49	0	0.61	62.26	0	0	0	987.42
Aphia minuta	Transparent gobid	GSA 9,10,16 and 19	0	0	21.72	0	0	0	59.25	0	0	0	80.97
Aristaeomorpha foliacea	Giant red shrimp	all areas in the Med	0	0.03	5.03	0	73.69	0	2595.76	26.08	0	0	2700.59
Aristeus antennatus	Red shrimp	all areasin the Med	0	0	979.74	0.04	1.45	0	1016.34	2.12	0	0	1999.69
Atherina spp	Sand smelt	GSA 9,10,16 and 19	0	0	39.81	0	0	0	1.88	0	0	0.51	42.2
Boops boops	Bogue	1.3, 2.1, 2.2, 3.1, 3.2	0	109.73	260.81	23.82	3502.96	94.49	1829.68	53.9	0	0.34	5875.73
Chelidonichthys lucerna	Tub gurnard	1.3, 2.2, 3.1	0	0	64.5	0	62.73	0	659.88	0.56	0	1.03	788.7
Coryphaena hippurus	Dolphinfish	all areas in the Med	0	0.71	138.89	1.49	31.88	1.27	667.18	301.37	0	0	1142.79
Dicentrarchus labrax	Sea bass	all areas in the Med	0	1.33	94.51	275.9	182.91	9.41	265.24	0.15	0	3.61	833.06
Eledone cirrhosa	Horned octopus	1.1, 1.3, 2.1, 2.2, 3.1	0	0	672.24	0	0	30.54	2313.08	0.01	0	0	3015.87
Eledone moschata	Musky octopus	1.3, 2.1, 2.2, 3.1	0	0	200.01	0	356.02	321.36	2781.46	0.19	0	14.63	3673.67
Engraulis encrasicolus	Anchovy	all areasin the Med	0	0.2	21693.57	1224.87	13303.18	10788.98	37779.37	0	0	2.2	84792.37
Engraulis encrasicolus	Anchovy	Black Sea GSA 29	20.6	0	0	0	0	0	0	0	53.73	0	74.33
Eutrigla gurnardus	Grey gurnard	2.2, 3.1	0	0	55.39	0	0	0	14.4	0.03	0	0	69.82
Illex spp., *Todarodes* spp.	Squid	all areas in the Med	0	0.41	1109.52	156.88	578.75	0	2772.08	3.7	0	0	4621.34
Istiophoridae	Billfish	all areas in the Med	0	0.16	0	0.05	0	0	4.98	2.17	0	0	7.36
Loligo vulgaris	Common squid	all areas in the Med	0	10.46	278.93	187.84	307.96	114.74	1577.28	12.59	0	8.05	2497.85
Lophius budegassa	Black-bellied angler	1.1, 1.2, 1.3, 2.2, 3.1	0	1.39	854.89	446.48	523.42	0	896.62	0.34	0	0	2723.14
Lophius piscatorius	Anglerfish	1.1, 1.2, 1.3, 2.2, 3.1	0	0	205.18	39.88	52.45	0	244.85	3.81	0	0.05	546.22
Merlangius merlangus	Whiting	Black Sea GSA 29	6.5	0	0	0	0	0	0	0	0.06	0	6.56
Merluccius merluccius	Hake	all areasin the Med	0	12.57	2470.12	844.8	4411.74	889.83	7717.68	14.92	0	1.07	16362.73
Micromesistius poutassou	Blue whiting	1.1, 3.1	0	0	685.81	0	792.38	0	0	1.24	0	0	1479.43
Mugilidae	Grey mullets	1.3, 2.1, 2.2, 3.1	0	0.28	316.17	18.02	753.59	113.41	1208.55	0.48	0	6.55	2417.05
Mullus barbatus	Red mullet	all areasin the Med	0	22.82	1746.12	322.2	2678.32	938.51	6368.53	10.98	0	3.93	12091.41
Mullus barbatus	Red mullet	Black Sea GSA 29	616.68	0	0	0	0	0	0	0	4.48	0	621.16
Mullus surmuletus	Striped red mullet	all areas in the Med	0	63.73	659.99	119.85	1797.2	26	1909.75	35.75	0	0.23	4612.5
Nephrops norvegicus	Norway lobster	all areas in the Med	0	0	415.35	35.34	207.35	223.19	1594.1	1.1	0	0	2476.43
Octopus vulgaris	Common octopus	all areas in the Med	0	21.19	2338.19	385.38	3270.05	165.88	2709.4	30	0	0.01	8920.1
Pagellus erythrinus	Pandora	all areas in the Med	0	25.74	966.67	171.4	1205.23	61.34	814.16	9.51	0	3.39	3257.44
Parapenaeus longirostris	White shrimp	all areas in the Med	0	1.65	984.91	50.81	2562.77	800.64	9289.61	9.96	0	0	13700.35
Penaeus kerathurus	Caramote prawn	3.1	0	0	128	0	1330.96	0	0	0	0	1.81	1460.77
Psetta maxima	Turbot	Black Sea GSA 29	46.55	0	0	0	0	0	0	0	43.44	0	89.99
Rapana venosa	Rapa whelk	Black Sea GSA 29	3534.96	0	0	0	0	0	0	0	7693	0	11227.96
Sardina pilchardus	Sardine	all areas in the Med	0	1.28	12465.36	1215.52	12406.02	49656.3	25874.23	0.03	0	12.44	101631.18
Scomber spp.	Mackerel	all areas in the Med	0	5.71	3183.25	760.56	133.88	1912.86	2429.79	762.54	0	1.77	9190.36
Sepia officinalis	Cuttlefish	all areas in the Med	0	35.11	812.05	68.63	3122.27	103.75	5963.14	12.57	0	3.15	10120.67
Solea solea	Sole	1.2, 2.1, 3.1	0	0	155.55	66.15	608.98	212.27	1947.07	0.02	0	11.41	3001.45
Sparus aurata	Gilthead sea bream	1.2, 3.1	0	0	927.31	1167.97	594.04	0	0	1.2	0	16.41	2706.93
Spicara smaris	Picarels	2.1, 3.1, 3.2	0	75.66	196.13	0	1182.4	98	3.96	1.89	0	0	1558.04
Sprattus sprattus	Sprat	Black Sea GSA 29	2890.74	0	0	0	0	0	0	0	36.67	0	2927.41
Squilla mantis	Mantis shrimp	1.3, 2.1, 2.2	0	0	851.63	0	507.78	12.41	4831.54	0	0	1.4	6204.76
Trachurus	Mediterranean	All areas in the Med	0	2.89	1965.45	209.49	175.33	353.42	759.7	13.3	0	1.41	3480.99
Trachurus	Mediterranean	Black Sea GSA 29	172.11	0	0	0	0	0	0	0	32.03	0	204.14
Trachurus trachurus	Horse mackerel	all areas in the Med	0	0.26	1616.13	209.49	546.79	768.54	2219	7.51	0	0	5367.72
Trisopterus minutus	Poor cod	All Regions	0	0	621.35	465.54	37.49	0	634.8	0	0	0.01	1759.19
Veneridae	Clam	2.1, 2.2	0	0	73.78	0	0	150.88	52.93	0	0	0.33	277.92

* For Greece, average landings refer to the 2016 and 2018 data.

Table 4.4.2: Contribution (%) of Member States to the average landings over the period 2016-2018, for species included in Table 1A of Commission Decision 2016/1251 concerning the Mediterranean and Black Sea.

Species		Area	BGR	CYP	ESP	FRA	GRC	HRV	ITA	MLT	ROU	SVN
Anguilla anguilla	European Eel	all areas in the Med	0	0	0.02	0.92	0	0	0.06	0	0	0
Aphia minuta	Transparent gobid	GSA 9,10,16 and 19	0	0	0.27	0	0	0	0.73	0	0	0
Aristaeomorpha foliacea	Giant red shrimp	all areas in the Med	0	0	0	0	0.03	0	0.96	0.01	0	0
Aristeus antennatus	Red shrimp	all areasin the Med	0	0	0.49	0	0	0	0.51	0	0	0
Atherina spp	Sand smelt	GSA 9,10,16 and 19	0	0	0.94	0	0	0	0.04	0	0	0.01
Boops boops	Bogue	1.3, 2.1, 2.2, 3.1, 3.2	0	0.02	0.04	0	0.6	0.02	0.31	0.01	0	0
Chelidonichthys lucerna	Tub gurnard	1.3, 2.2, 3.1	0	0	0.08	0	0.08	0	0.84	0	0	0
Coryphaena hippurus	Dolphinfish	all areas in the Med	0	0	0.12	0	0.03	0	0.58	0.26	0	0
Dicentrarchus labrax	Sea bass	all areas in the Med	0	0	0.11	0.33	0.22	0.01	0.32	0	0	0
Eledone cirrhosa	Horned octopus	1.1, 1.3, 2.1, 2.2, 3.1	0	0	0.22	0	0	0.01	0.77	0	0	0
Eledone moschata	Musky octopus	1.3, 2.1, 2.2, 3.1	0	0	0.05	0	0.1	0.09	0.76	0	0	0
Engraulis encrasicolus	Anchovy	all areasin the Med	0	0	0.26	0.01	0.16	0.13	0.45	0	0	0
Engraulis encrasicolus	Anchovy	Black Sea GSA 29	0.28	0	0	0	0	0	0	0	0.72	0
Eutrigla gurnardus	Grey gurnard	2.2, 3.1	0	0	0.79	0	0	0	0.21	0	0	0
Illex spp., *Todarodes* spp.	Squid	all areas in the Med	0	0	0.24	0.03	0.13	0	0.6	0	0	0
Istiophoridae	Billfish	all areas in the Med	0	0.02	0	0.01	0	0	0.68	0.29	0	0
Loligo vulgaris	Common squid	all areas in the Med	0	0	0.11	0.08	0.12	0.05	0.63	0.01	0	0
Lophius budegassa	Black-bellied angler	1.1, 1.2, 1.3, 2.2, 3.1	0	0	0.31	0.16	0.19	0	0.33	0	0	0
Lophius piscatorius	Anglerfish	1.1, 1.2, 1.3, 2.2, 3.1	0	0	0.38	0.07	0.1	0	0.45	0.01	0	0
Merlangius merlangus	Whiting	Black Sea GSA 29	0.99	0	0	0	0	0	0	0	0.01	0
Merluccius merluccius	Hake	all areasin the Med	0	0	0.15	0.05	0.27	0.05	0.47	0	0	0
Micromesistius poutassou	Blue whiting	1.1, 3.1	0	0	0.46	0	0.54	0	0	0	0	0
Mugilidae	Grey mullets	1.3, 2.1, 2.2, 3.1	0	0	0.13	0.01	0.31	0.05	0.5	0	0	0
Mullus barbatus	Red mullet	all areasin the Med	0	0	0.14	0.03	0.22	0.08	0.53	0	0	0
Mullus barbatus	Red mullet	Black Sea GSA 29	0.99	0	0	0	0	0	0	0	0.01	0
Mullus surmuletus	Striped red mullet	all areas in the Med	0	0.01	0.14	0.03	0.39	0.01	0.41	0.01	0	0
Nephrops norvegicus	Norway lobster	all areas in the Med	0	0	0.17	0.01	0.08	0.09	0.64	0	0	0
Octopus vulgaris	Common octopus	all areas in the Med	0	0	0.26	0.04	0.37	0.02	0.3	0	0	0
Pagellus erythrinus	Pandora	all areas in the Med	0	0.01	0.3	0.05	0.37	0.02	0.25	0	0	0
Parapenaeus longirostris	White shrimp	all areas in the Med	0	0	0.07	0	0.19	0.06	0.68	0	0	0
Penaeus kerathurus	Caramote prawn	3.1	0	0	0.09	0	0.91	0	0	0	0	0
Psetta maxima	Turbot	Black Sea GSA 29	0.52	0	0	0	0	0	0	0	0.48	0
Rapana venosa	Rapa whelk	Black Sea GSA 29	0.31	0	0	0	0	0	0	0	0.69	0
Sardina pilchardus	Sardine	all areas in the Med	0	0	0.12	0.01	0.12	0.49	0.25	0	0	0
Scomber spp.	Mackerel	all areas in the Med	0	0	0.35	0.08	0.01	0.21	0.26	0.08	0	0
Sepia officinalis	Cuttlefish	all areas in the Med	0	0	0.08	0.01	0.31	0.01	0.59	0	0	0
Solea solea	Sole	1.2, 2.1, 3.1	0	0	0.05	0.02	0.2	0.07	0.65	0	0	0
Sparus aurata	Gilthead sea bream	1.2, 3.1	0	0	0.34	0.43	0.22	0	0	0	0	0.01
Spicara smaris	Picarels	2.1, 3.1, 3.2	0	0.05	0.13	0	0.76	0.06	0	0	0	0
Sprattus sprattus	Sprat	Black Sea GSA 29	0.99	0	0	0	0	0	0	0	0.01	0
Squilla mantis	Mantis shrimp	1.3, 2.1, 2.2	0	0	0.14	0	0.08	0	0.78	0	0	0
Trachurus mediterraneus	Mediterranean horse ma	All areas in the Med	0	0	0.56	0.06	0.05	0.1	0.22	0	0	0
Trachurus mediterraneus	Mediterranean horse ma	Black Sea GSA 29	0.84	0	0	0	0	0	0	0	0.16	0
Trachurus trachurus	Horse mackerel	all areas in the Med	0	0	0.3	0.04	0.1	0.14	0.41	0	0	0
Trisopterus minutus	Poor cod	All Regions	0	0	0.35	0.26	0.02	0	0.36	0	0	0
Veneridae	Clam	2.1, 2.2	0	0	0.27	0	0	0.54	0.19	0	0	0

* For Greece, average landings refer to the 2016 and 2018 data.

Table 4.4.3: Average landings by MS (in tons) over the 2016-2018 period for sharks, rays and skates in the Mediterranean Sea and Black Sea.

Species		Area	CYP	ESP	FRA	GRC	HRV	ITA	MLT	ROU	SVN	Total
Alopias vulpinus	Thresher	All Regions	0	0	0	0	0	1.4	0	0	0.02	1.42
Carcharhinus brachyurus	Black-tipped whaler/ copper shark	All Regions	0.02	0	0	0	0	0	0	0	0	0.02
Centrophorus	Gulper shark	All Regions	0	8.34	0	0	0	0.19	1.7	0	0	10.23
Centrophorus uyato	Little gulper shark	All Regions	0	0	0	0	0	0	0.72	0	0	0.72
Cetorhinus maximus	Basking shark	All Regions	0	0.08	0	0	0	0	0	0	0	0.08
Dalatias licha	Kitefin shark	All Regions	0	1.01	0	0	0	0.13	0	0	0	1.14
Dasyatidae	Stingrays, butterfly rays	All Regions	0	0	0	0	0	1.1	0	0	0	1.1
Dasyatis pastinaca	Common stingray	All Regions	6.68	0	0	0	0	0	0	2.04	0	8.72
Dasyatis violacea	Pelagic stingray	All Regions	0.04	0	0	0	0	0	0.03	0	0	0.07
Elasmobranchii		All Regions	0	2.13	0	0	0	0	0	0	0	2.13
Etmopterus spinax	Velvet belly	All Regions	0	2.3	0	0	0	0.9	0.01	0	0	3.21
Galeorhinus galeus	Tope shark	All Regions	0.01	0.22	0	0	0	0	0	0	0	0.23
Galeus melastomus	Blackmouth catshark	All Regions	0	101.4	0	34.25	0	5.07	0	0	0	140.74
Galeus spp.	Crest-tail catsharks nei	All Regions	0	0	0	0	0	3.52	0	0	0	3.52
Gymnura altavela	Butterfly ray	All Regions	0.1	0	0	0	0	0	0	0	0	0.1
Heptranchias perlo	Sharpnose sevengill shark	All Regions	0	2.39	0	0	0	1.28	0.07	0	0	3.74
Hexanchus griseus	Bluntnose sixgill shark	All Regions	0	0.33	0	1.6	0	1.81	3.06	0	0	6.8
Isurus oxyrinchus	Shortfin mako	All Regions	0	0.19	0	0	0	0	0	0	0	0.19
Lamna nasus	Porbeagle	All Regions	0	0	0	0	0	0.65	0	0	0	0.65
Mustelus asterias	Starry smooth-hound	All Regions	0	0	0	0	0	0	0.43	0	0	0.43
Mustelus mustelus	Smooth-hound	All Regions	0	29.59	0	2.11	24.99	0	14.42	0	1.91	73.02
Mustelus	Blackspotted smooth-	All Regions	0	0	0	0	0	0	0.71	0	0	0.71
Mustelus spp.		All Regions	0.11	0	0	85.42	0	0	0	0	0	85.53
Myliobatis aquila	Common eagle ray	All Regions	0	10.76	0	9.69	13.9	0	0	0	0.12	34.47
Oxynotus centrina	Angular roughshark	All Regions	0	0.56	0	0	0	0.04	0	0	0	0.6
Prionace glauca	Blue shark	All Regions	0.55	39.72	1.98	0	0	33.11	3.14	0	0	78.5
Raja alba	White skate	All Regions	0	0	8.51	0	0	93.96	0.36	0	0	102.83
Raja asterias	Mediterranean starry ray	All Regions	0	38.39	29.19	0.2	0	156	0.04	0	0.16	223.98
Raja brachyura	Blonde ray	All Regions	0	0	2.4	0	0	0	0.01	0	0	2.41
Raja circularis	Sandy ray	All Regions	0	0	0	0	0	0	0.06	0	0	0.06
Raja clavata	Thornback ray	All Regions	0	145.7	33.82	8.81	0	633.6	15.51	0.15	0.25	837.8
Raja miraletus	Brown ray	All Regions	0	0	0	0.04	0	78.17	0.04	0	0	78.25
Raja montagui	Spotted ray	All Regions	0	0	34.86	0	0	12.18	6.37	0	0	53.41
Raja naevus	Butterfly skate	All Regions	0	0	7.92	0	0	0	0	0	0	7.92
Raja oxyrinchus	Longnosed skate	All Regions	0	0	0	0	0	0	0.56	0	0	0.56
Raja polystigma	Speckled ray	All Regions	0	0	0	0.02	0	0	0.08	0	0	0.1
Raja spp *(R. clavata, R. miraletus)*		All Regions	0	0	0	0	90.19	0	0	0	0	90.19
Raja spp.	Raja rays nei	All Regions	3.15	0	0	442.8	0	0	1.4	0	0	447.38
Raja undulata	Painted ray/undulate ray	All Regions	0	0	0.84	0	0	0	0	0	0	0.84
Rajidae	Rays and skates nei	All Regions	1.26	363.7	0	0	0	0	0	0	0	364.97
Scyliorhinidae	Catsharks, etc. nei	All Regions	0.06	0	0	0	0	0	0	0	0	0.06
Scyliorhinus canicula	Small-spotted catshark	All Regions	0	245.8	24.29	25.33	0	185.2	1.35	0	0	481.97
Scyliorhinus spp (S. canicula, S. stellari)		All Regions	0	0	0	0	12.3	0	0	0	0	12.3
Scyliorhinus stellaris	Nursehound	All Regions	0	0	0	0.59	0	1.09	0.48	0	0	2.16
Sphyrna spp.	Hammerhead sharks nei	All Regions	0	0	0	0	0	0.02	0	0	0	0.02
Squalidae		All Regions	0	0	0	0	42.56	0	0	0	0	42.56
Squalus acanthias	Picked dogfish	All Regions	0	0.24	1.42	15.5	24.92	0	5.46	1.71	0	49.25
Squalus blainville	Longnose spurdog	All Regions	0	0	0	0	0	0	10.25	0	0	10.25
Squalus spp.	Dogfishes nei	All Regions	0.11	0	0	0	0	32.18	1.53	0	0	33.82
Squatina squatina	Angel shark	All Regions	0	0	0	0	0	0.02	0	0	0	0.02
Triakidae	Houndsharks, smoothhounds nei	All Regions	1.35	0	0	0	0	0	0	0	0	1.35

* For Greece, average landings refer to the 2016 and 2018 data.

Table 4.4.4: Contribution (%) of Member States to the average landings over the 2016-2018 period for sharks, rays and skates in the Mediterranean and Black Sea.

	Species	Area	CYP	ESP	FRA	GRC	HRV	ITA	MLT	ROU	SVN
Alopias vulpinus	Thresher	All Regions	0	0	0	0	0	0.99	0	0	0.01
Carcharhinus brachyurus	Black-tipped whaler/ copper shark	All Regions	1	0	0	0	0	0	0	0	0
Centrophorus granulosus	Gulper shark	All Regions	0	0.82	0	0	0	0.02	0.17	0	0
Centrophorus uyato	Little gulper shark	All Regions	0	0	0	0	0	0	1	0	0
Cetorhinus maximus	Basking shark	All Regions	0	1	0	0	0	0	0	0	0
Dalatias licha	Kitefin shark	All Regions	0	0.89	0	0	0	0.11	0	0	0
Dasyatidae	Stingrays, butterfly rays nei	All Regions	0	0	0	0	0	1	0	0	0
Dasyatis pastinaca	Common stingray	All Regions	0.77	0	0	0	0	0	0	0.23	0
Dasyatis violacea	Pelagic stingray	All Regions	0.57	0	0	0	0	0	0.43	0	0
Elasmobranchii		All Regions	0	1	0	0	0	0	0	0	0
Etmopterus spinax	Velvet belly	All Regions	0	0.72	0	0	0	0.28	0	0	0
Galeorhinus galeus	Tope shark	All Regions	0.04	0.96	0	0	0	0	0	0	0
Galeus melastomus	Blackmouth catshark	All Regions	0	0.72	0	0.24	0	0.04	0	0	0
Galeus spp.	Crest-tail catsharks nei	All Regions	0	0	0	0	0	1	0	0	0
Gymnura altavela	Butterfly ray	All Regions	1	0	0	0	0	0	0	0	0
Heptranchias perlo	Sharpnose sevengill shark	All Regions	0	0.64	0	0	0	0.34	0.02	0	0
Hexanchus griseus	Bluntnose sixgill shark	All Regions	0	0.05	0	0.24	0	0.27	0.45	0	0
Isurus oxyrinchus	Shortfin mako	All Regions	0	1	0	0	0	0	0	0	0
Lamna nasus	Porbeagle	All Regions	0	0	0	0	0	1	0	0	0
Mustelus asterias	Starry smooth-hound	All Regions	0	0	0	0	0	0	1	0	0
Mustelus mustelus	Smooth-hound	All Regions	0	0.41	0	0.03	0.34	0	0.2	0	0.03
Mustelus punctulatus	Blackspotted smooth-hound	All Regions	0	0	0	0	0	0	1	0	0
Mustelus spp.		All Regions	0	0	0	1	0	0	0	0	0
Myliobatis aquila	Common eagle ray	All Regions	0	0.31	0	0.28	0.4	0	0	0	0
Oxynotus centrina	Angular roughshark	All Regions	0	0.93	0	0	0	0.07	0	0	0
Prionace glauca	Blue shark	All Regions	0.007	0.506	0.025	0	0	0.422	0.04	0	0
Raja alba	White skate	All Regions	0	0	0.08	0	0	0.91	0	0	0
Raja asterias	Mediterranean starry ray	All Regions	0	0.17	0.13	0	0	0.7	0	0	0
Raja brachyura	Blonde ray	All Regions	0	0	1	0	0	0	0	0	0
Raja circularis	Sandy ray	All Regions	0	0	0	0	0	0	1	0	0
Raja clavata	Thornback ray	All Regions	0	0.17	0.04	0.01	0	0.76	0.02	0	0
Raja miraletus	Brown ray	All Regions	0	0	0	0	0	1	0	0	0
Raja montagui	Spotted ray	All Regions	0	0	0.65	0	0	0.23	0.12	0	0
Raja naevus	Butterfly skate	All Regions	0	0	1	0	0	0	0	0	0
Raja oxyrinchus	Longnosed skate	All Regions	0	0	0	0	0	0	1	0	0
Raja polystigma	Speckled ray	All Regions	0	0	0	0.2	0	0	0.8	0	0
Raja spp *(R. clavata, R.*		All Regions	0	0	0	0	1	0	0	0	0
Raja spp.	Raja rays nei	All Regions	0.01	0	0	0.99	0	0	0	0	0
Raja undulata	Painted ray/undulate ray	All Regions	0	0	1	0	0	0	0	0	0
Rajidae	Rays and skates nei	All Regions	0	1	0	0	0	0	0	0	0
Scyliorhinidae	Catsharks, etc. nei	All Regions	1	0	0	0	0	0	0	0	0
Scyliorhinus canicula	Small-spotted catshark	All Regions	0	0.51	0.05	0.05	0	0.38	0	0	0
Scyliorhinus spp (S.		All Regions	0	0	0	0	1	0	0	0	0
Scyliorhinus stellaris	Nursehound	All Regions	0	0	0	0.27	0	0.5	0.22	0	0
Sphyrna spp.	Hammerhead sharks nei	All Regions	0	0	0	0	0	1	0	0	0
Squalidae		All Regions	0	0	0	0	1	0	0	0	0
Squalus acanthias	Picked dogfish	All Regions	0	0	0.03	0.31	0.51	0	0.11	0.03	0
Squalus blainville	Longnose spurdog	All Regions	0	0	0	0	0	0	1	0	0
Squalus spp.	Dogfishes nei	All Regions	0	0	0	0	0	0.95	0.05	0	0
Squatina squatina	Angel shark	All Regions	0	0	0	0	0	1	0	0	0
Triakidae	Houndsharks, smoothhounds nei	All Regions	1	0	0	0	0	0	0	0	0

* For Greece, average landings refer to the 2016 and 2018 data.

Ranking system for the Mediterranean and Black Sea fisheries

A ranking system of metiers at level 6 was performed at regional level (Mediterranean Sea, Black Sea - GSA29).

As in previous years, the ranking system applied was the one described in the old DCF Decision 2010/93/EU, according to which a ranking of the métiers is performed three times: firstly according to their share in the total landings, secondly according to their share in the total value of the commercial landings and thirdly according to their share in the total effort (days at sea). For each ranking, the shares were cumulated starting with the largest, until a cut-off level of 90% was reached. At the end of the procedure, all métiers selected through each ranking where added.

Data used: Average data on landings, value and effort over the period 2016-2018 were used, which were received under the 2019 RCG Med&BS Data Call. For Greece the 2017 available data did not cover all metiers, thus it was decided to consider for the analysis only the 2016 and 2018 data.

Results:

Mediterranean Sea

26 metiers were identified for the Mediterranean Sea for the period 2016-2018, listed in Table 4.4.5. Specifications provided on miscellaneous (MISC) metiers are provided in Table 4.4.6.

Table 4.4.5: List of identified metiers at level 6 in the Mediterranean Sea for the period 2016-2018.

DRB_MOL_0_0_0
FPO_DEF_0_0_0
FYK_CAT_0_0_0
FYK_DEF_0_0_0
GND_DEF_0_0_0
GND_SPF_0_0_0
GNS_DEF_>=16_0_0
GNS_SLP_>=16_0_0
GTR_DEF_>=16_0_0
LA_SLP_14_0_0
LHP-LHM_CEP_0_0_0
LHP-LHM_FIF_0_0_0
LLD_LPF_0_0_0
LLS_DEF_0_0_0
LTL_LPF_0_0_0
MISC
OTB_DEF_>=40_0_0
OTB_DWS_>=40_0_0
OTB_MDD_>=40_0_0
OTH
OTM_MPD_>=20_0_0
PS_LPF_14_0_0
PS_SPF_>=14_0_0
PTM_SPF_>=20_0_0
SB-SV_DEF_0_0_0
TBB_DEF_0_0_0

Table 4.4.6: Specifications provided by Mediterranean MS on the use of MISC metiers.

MISC	MS	Notes
Misc_LHP	ESP	Pole and line fishing are used to catch naturally schooling fish which can be attracted to the surface throwing over the board live bait.
Misc_LLS	ESP	Deep water longlines traditionally used in commercial fishing of the black spot seabream (*Pagellus bogaraveo*)
FPO_DEMSP_>=40_0_0	HRV	
HAR_DEF_0_0_0	HRV	
MIS_MIS_0_0_0	HRV	
Combined gillnets-trammel nets	MLT	
Set surface longlines	MLT	
GTN_DEF_>16_0_0	SVN	

Table 4.4.7: Results of the ranking system at a cut-off level of 90% based on average landings (tons) over the period 2016-2018 for the whole Mediterranean Sea (with MISC aggregated).

Metiers at lvl 6	Average Landings	%	CumSum
PS_SPF_>=14_0_0	201501548	0.397	0.397
OTB_DEF_>=40_0_0	116239972	0.229	0.626
PTM_SPF_>=20_0_0	43822787	0.086	0.713
GTR_DEF_>=16_0_0	26780880	0.053	0.765
PS_LPF_14_0_0	25386279	0.050	0.815
GNS_DEF_>=16_0_0	19804565	0.039	0.854
DRB_MOL_0_0_0	16942148	0.033	0.888
FPO_DEF_0_0_0	9178255	0.018	0.906

Table 4.4.8: Results of the ranking system at a cut-off level of 90% based on average value of landings (euro) over the period 2016-2018 for the Mediterranean Sea (with MISC aggregated).

Metiers at lvl 6	Average Value	%	CumSum
OTB_DEF_>=40_0_0	728176492	0.341	0.341
PS_SPF_>=14_0_0	387871637	0.182	0.522
GTR_DEF_>=16_0_0	235172205	0.110	0.632
GNS_DEF_>=16_0_0	159887287	0.075	0.707
OTB_DWS_>=40_0_0	98687476	0.046	0.754
OTB_MDD_>=40_0_0	82905203	0.039	0.792
LLD_LPF_0_0_0	67878399	0.032	0.824
FPO_DEF_0_0_0	63939160	0.030	0.854
LLS_DEF_0_0_0	58709460	0.027	0.881
PTM_SPF_>=20_0_0	53029153	0.025	0.906

Table 4.4.9: Results of the ranking system at a cut-off level of 90% based on average effort (days at sea) over the period 2016-2018 for the Mediterranean Sea (with MISC aggregated).

Metiers at lvl 6	Average Effort	%	CumSum
GTR_DEF_>=16_0_0	2275920	0.339	0.339
OTB_DEF_>=40_0_0	1324235	0.197	0.536
GNS_DEF_>=16_0_0	1253227	0.187	0.723
LLS_DEF_0_0_0	700953	0.104	0.827
FPO_DEF_0_0_0	251069	0.037	0.864
PS_SPF_>=14_0_0	189157	0.028	0.892
OTB_MDD_>=40_0_0	128638	0.019	0.912

In overall, 13 metiers were selected through the ranking procedure in the Mediterranean Sea (see Table 4.4.10).

Table 4.4.10: Overall métiers selected through ranking procedure over the period 2016-2018 for the Mediterranean Sea.

Metiers at lvl 6	Selected based on landings	Selected based on value	Selected based on effort
DRB_MOL_0_0_0	X		
FPO_DEF_0_0_0	X	X	X
GNS_DEF_>=16_0_0	X	X	X
GTR_DEF_>=16_0_0	X	X	X
LLD_LPF_0_0_0		X	
LLS_DEF_0_0_0		X	X
OTB_DEF_>=40_0_0	X	X	X
OTB_DWS_>=40_0_0		X	
OTB_MDD_>=40_0_0		X	X
PS_LPF_14_0_0	X		
PS_SPF_>=14_0_0	X	X	X
PTM_SPF_>=20_0_0	X	X	

Black Sea (GSA29)

11 metiers were identified for the Black Sea for the period 2016-2018, listed in Table 4.4.11. Specifications provided on miscellaneous (MISC) metiers are shown in Table xx.12.

Table 4.4.11: List of identified metiers at level 6 in the Black Sea for the period 2016-2018.

FPO_DEF_0_0_0
GNS_DEF_>=16_0_0
GNS_DEF_360-400_0_0
GNS_SLP_>=16_0_0
LHP-LHM_FIF_0_0_0
LLS_DEF_0_0_0
MISC
OTM_MPD_>=13_19_0_0
PS_SPF_>=14_0_0
SB-SV_DEF_0_0_0
TBB_DEF_0_0_0

Table 4.4.12: Specifications provided by MS on the use of MISC metiers.

MISC	MS
LHM_SPF_0_0_0	BGR
LHP_DEF_0_0_0	BGR
LLD_DEF_0_0_0	BGR
NO - without gear	BGR
SB_SPF_0_0_0	BGR

Table 4.4.13: Results of the ranking system at a cut-off level of 90% based on average landings (tons) over the period 2016-2018 for the Black Sea.

Metiers at lvl 6	Average Landings	%	CumSum
OTM_MPD_>=13_19_0_0	3561481	0.912	0.912

Table 4.4.14: Results of the ranking system at a cut-off level of 90% based on average value of landings (euro) over the period 2015-2017 for the Black Sea.

Metiers at lvl 6	Average Value	%	CumSum
OTM_MPD_>=13_19_0_0	2426039	0.714	0.714
GNS_DEF_360-400_0_0	647308	0.190	0.904

Table 4.4.15: Results of the ranking system at a cut-off level of 90% based on average effort (days at sea) over the period 2015-2017 for the Black Sea.

Metiers at lvl 6	Average Effort	%	CumSum
GNS_DEF_>=16_0_0	6356	0.346	0.346
OTM_MPD_>=13_19_0_0	5227	0.285	0.631
GNS_DEF_360-400_0_0	2321	0.126	0.758
MISC	1428	0.078	0.836
TBB_DEF_0_0_0	1396	0.076	0.912

Since MISC métiers were selected through the ranking system, the ranking system was performed again, disaggregating the MISC métiers based on the information provided. In this case, the métiers selected through the ranking system concerning effort are provided in the Table 4.4.16.

Table 4.4.16: Results of the ranking system at a cut-off level of 90% based on average effort (days at sea) over the period 2016-2018 for the Black Sea (with MISC disaggregated).

Metiers at lvl 6	Average Effort	%	CumSum
GNS_DEF_>=16_0_0	6356	0.346	0.346
OTM_MPD_>=13_19_0_0	5227	0.285	0.631
GNS_DEF_360-400_0_0	2321	0.126	0.758
TBB_DEF_0_0_0	1396	0.076	0.834
FPO_DEF_0_0_0	1284	0.070	0.904

In overall, 5 metiers were selected through the ranking procedure in the Black Sea (see Table **4.4.17**).

Table 4.4.17: Métiers selected through ranking procedure over the period 2016-2018 for the Black Sea

Metiers at lvl 6	Selected based on landings	Selected based on value	Selected based on effort
FPO_DEF_0_0_0			X
GNS_DEF_>=16_0_0			X
GNS_DEF_360-400_0_0		X	X
OTM_MPD_>=13_19_0_0	X	X	X
TBB_DEF_0_0_0			X

5. Data quality (assurance and control) (TOR 5)

Due to the time limits the discussion for the TOR 5 was postponed for the next RCG meeting.

6. Surveys (TOR 6)

6.1. COM presentation on the outcomes of STECF EWG 19-05 on mandatory surveys (by Leyla Knittweis /Venetia Kostopoulou)

A presentation on the outcomes of STECF EWG 19-05 on mandatory surveys was made by Ms Leyla Knittweis and Ms Venetia Kostopoulou (Presentation in AnnexVIII). The main points are summarised below.

The Expert Working Group EWG 19-05 met during 13-17 May 2018 to evaluate research surveys of marine fish resources and propose surveys to be included on the list of mandatory surveys, as a revision to the EU Multiannual Programme (EU MAP). The Terms of Reference were agreed at STECF EWG 18-04. The tools used for the evaluation of surveys were two databases and the decision support tool (DST). The Stocks database provides general information about each fish stock and the research vessel surveys at sea that provide information to support the assessment or provision of management advice for the stock. The Stocks database, by design, contains information for all fish stocks of interest to the Commission, as listed in Tables 1A and 1C of the EU MAP. The Surveys database provides detailed information about the characteristics of EU research vessel surveys at sea used to collect data needed for stock assessment or the provision of management advice, either with respect to fisheries or to the ecosystem; it contains information for all surveys at sea listed in Table 10 of the EU MAP and additional research vessel surveys at sea proposed by Member States and the RCGs.

MS, RCGs and end users were requested to fill in 'Stocks' and 'Surveys' databases, needed as background information for the evaluation of surveys using the DST.

The DST starts with a specific stock for which advice is needed and couples that stock with each relevant survey and follows a sequence of questions leading either to (a) a proposal to include the survey in the list of mandatory surveys or (b) a proposal to terminate data collection for that specific stock by the particular survey. Prior to ending up at either of these extremes, questions must be answered to address the criteria found in the DCF Regulation (recast).

Activities by the EWG produced a set of cleaned up and harmonized Stocks and Surveys databases. The EWG 19-05 proposal for the future mandatory list of surveys contains new surveys, excludes surveys that were considered out of scope and groups similar surveys together. Four surveys associated with one particular stock were flagged as needing further expert evaluation to gauge the possibility of survey duplication. For all other stocks, the EWG determined that the surveys (if there were two or more) were not duplicates, because (in general) the surveys did not overlap in terms of spatial or seasonal coverage.

The final outcomes of this EWG were communicated to all National Correspondents after the STECF summer Plenary. Some National Correspondents requested further clarifications. In the case of Med & Black Sea, this concerned the proposed surveys SOLEMON and TUNIBAL. The comments received, together with the EWG 19-05 final report were used in the STECF EWG 19-12 on the revision of the EU Multiannual Plan for data collection (EU-MAP) after 2020 (16-20 September 2019, Brussels). An updated proposal of the mandatory list of surveys was produced and will be discussed at the STECF Plenary (11-15 November, Brussels).

6.2. **MEDIAS** presentation of 12th MEDIAS Steering Committee meeting outcomes (by Dr. Vjekoslav Tičina, IOF, Croatia).

MEDIAS is listed as a DCF mandatory survey, and started in 2009 based on Council Regulation (EC) N° 199/2008, Commission Regulation (EC) N° 665/2008 and Commission Decision N°2010/93/EU. Currently, MEDIAS is performed within EU Data Collection Framework (Reg. (EC) N° 1004/2017). The main goal of these acoustic surveys is to evaluate the abundance and spatial distribution of small pelagic stocks, independently of the data provided by commercial fisheries, and to assess the impact of the fishing activity on the environment. Target species are anchovy (*Engraulis encrasicolus*) and sardine (*Sardina pilchardus*) in the Mediterranean Sea. During MEDIAS surveys, oceanographic data are also collected in order to describe environmental properties of the survey area - pelagic ecosystem and to understand the link between climate change and the variability in the abundance and spatial distribution of small pelagic fish.

Principal aim of the MEDIAS Steering Committee (SC) is to harmonize, as much as possible, ongoing acoustic surveys in the Mediterranean: Gulf of Lion (IFREMER), Iberian Coast (IEO), Sicilian Channel, Tyrrhenian Sea, Ligurian Sea (CNR-IAS and MSDEC-DFA), Adriatic Sea (CNR-IRBIM, IOF and FRIS), and Aegean and eastern Ionian Sea (HCMR). The 12th MEDIAS Steering Committee meeting was in Athens, Greece (9-11 April 2019) hosted by HCMR and chaired by Andrea De Felice from CNR-IRBIM (via skype).

Meeting participants were experts from the EU countries involved in acoustic and pelagic trawl surveys in the Mediterranean and Black Sea (Spain, Slovenia, Italy, Greece, France, Croatia, Romania and Bulgaria) and from non-EU countries (Turkey).

In the Mediterranean Sea, acoustic surveys have been carried out in GSAs 1, 6, 7, 9, 10, 15, 16, 17, 18, 20 and 22 (Fig. 6.2.1), concentrating on shelf areas of respected GSAs.

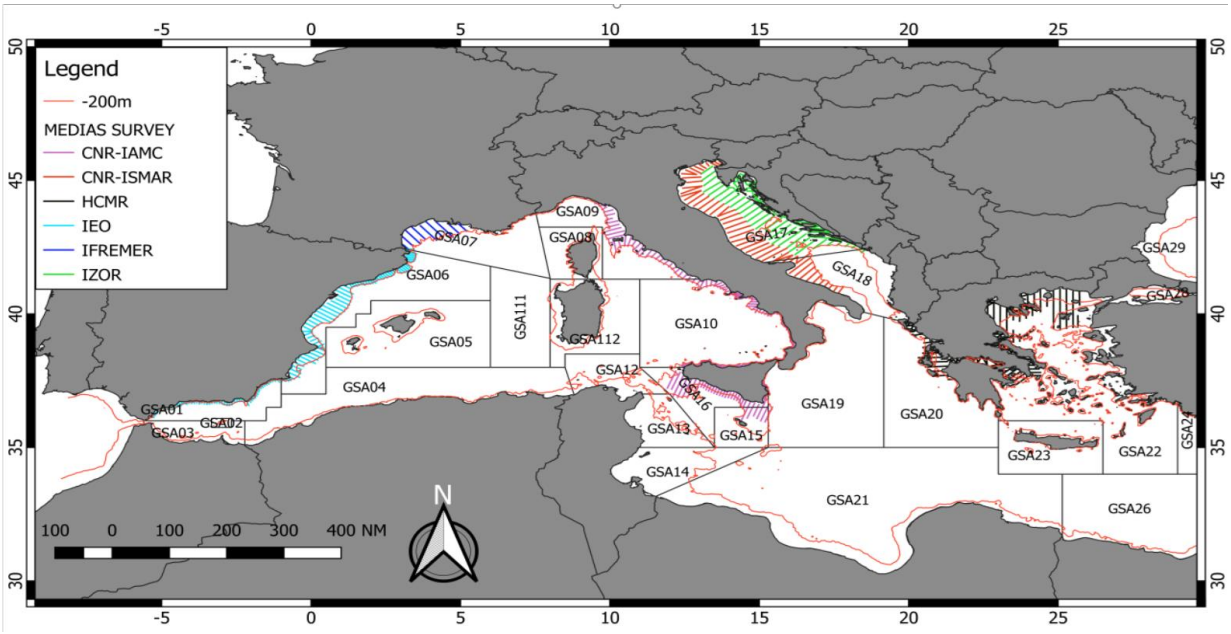


Figure 6.2.1. Acoustic surveys in the Mediterranean Sea.

In accordance with ToR for 2019, main objectives of the meeting were to present the results from the MEDiterranean International Acoustic Surveys (MEDIAS) carried out in 2018, to coordinate the MEDIAS surveys to be performed in 2019, to improve and update the common Protocol for the MEDIAS that is incorporated in the new DCF (2017/1004) framework reflected in the MEDIAS Handbook, to revise the ToRs from 2019 and to establish the ToRs for 2020. In addition, Steering Committee discussed issues related to revision of EU Decision Support Tool (DST) tables, eventually used in STECF EWG 19-05 meeting on surveys evaluation, and progress on R scripts.

Results obtained in acoustic surveys performed during 2018 were presented by meeting participants from Spain (Iberian acoustic survey MEDIAS 2018 in GSA 1 & GSA 6), France (Gulf of Lion acoustic survey in GSA 7), Italy (Acoustic survey on small pelagics in GSA 9 and GSA 10; Acoustic survey in South of Sicily in GSA 16 and MLT waters in GSA 15; Acoustic survey in the Adriatic - western part of GSA 17 + SVN waters & West GSA 18), Croatia (Acoustic survey in the Eastern Adriatic - eastern part of GSA 17) and Greece (Acoustic survey in the Eastern Ionian Sea in GSA 20). Results from pelagic trawl surveys in the Black Sea (area GSA 29) were presented also, by participants from Bulgaria and Romania. In addition, participant from Turkey presented acoustic surveys carried out within framework of GFCM BlackSea4Fish Project.

In relation to EU Decision Support Tools (DST) tables, Steering Committee discussed on different aspects of EU acoustic surveys that have been harmonized among MEDIAS groups. Steering Committee highlighted facts that survey designs are based on common geostatistical analysis (made in the ambit of EU AcousMed project), target species are common in all acoustic surveys, common TS equations are used in all areas for sardine (except in GSA 7), common sampling time for acoustic data and strategy for oceanographic data collection have been agreed, common acoustic sampling frequency for the assessment is used by all groups (38kHz) and common survey season (June-September) for all surveys is agreed. In addition, Steering Committee agreed on standardized otolith reading criteria for age estimation of target species, based on ICES WKARA2 2016 outcomes, as well as on common maturity stage determination criteria, based on the ICES WKSPMAT 2009 report.

MEDIAS Steering Committee also discussed publication of common studies and scientific papers at Mediterranean Sea level in Special Issue of the Mediterranean Marine Science (MMS) journal. A practice of joint meeting (every two years) with ICES WGACEGG, in order to share survey's experience, was also established.

Furthermore, Steering Committee discussed issues related to data accessibility, possible future improvements in MEDIAS surveys, expansion of survey's area in GSA 11 and GSA 19, and biomass estimation and relative CV calculation with EchoR script, as well as intercalibration exercise on anchovy otolith reading made by experts working in Mediterranean Sea and Atlantic Ocean (ICES area);

However, MEDIAS Steering Committee in its remarks pointed out that conditions to carry out survey's activities are sometimes problematic, particularly in terms of bureaucracy at MS level (e.g. authority response times, signed contracts, timely funding, etc.).

In general, MEDIAS Steering Committee emphasized that very limited resources are currently available (in particular the research vessels and skilled personnel). It was pointed out that MEDIAS activities can be carried out with a few adequately equipped vessels only. Such vessels currently are not available within the

Mediterranean commercial vessel fleet, as it might be the case for MEDITS. Participants from Croatia have been repeatedly reporting different logistic constraints, related to Croatian survey vessel (i.e. very low financial resources available per vessel day = bad maintenance), lack of formally nominated MS scientist responsible for MEDIAS in Croatia (since 2017), and heavy workload (see Report page 63: 13,578 nm2 - the largest survey area to be covered in 30 days only!) in relation to overall resources available (no. vessel days, skilled personnel, etc). MEDIAS Steering Committee pointed out that these problems, if not resolved, are likely to prevent a satisfactory conduction of the survey's activities in some Member States.

In conclusion, MEDIAS Steering Committee acknowledged results of the acoustic surveys carried out in 2018 as presented by participants of all the countries working in the Mediterranean Sea: Spain, Greece, Italy, France, Slovenia and Croatia, as well as results from the surveys carried out by Romania, Bulgaria and Turkey in the Black Sea. Steering Committee decided to continue efforts to translate workflows adopted by MEDIAS groups into the software developed by IFREMER, and adopted the R script developed by Marco Barra for CV estimation based on geostatistics. Steering Committee also agreed to continue submitting its proposals (i.e. vessel's intercalibration, common database and plankton monitoring) at RCG meetings, but also evaluate possibilities to proceed with these proposals as specific EU projects at various levels or under the umbrella of GFCM.

Steering Committee encouraged experts to prepare articles for publication in Special Issue of MMS by January 2020. In relation to new content in MEDIAS Website, Steering Committee decided to try to prepare standardized maps of fish spatial distributions, following examples from ICES WGACEGG. MEDIAS Handbook was updated and its last version is available in Annex IV of the 12th Steering Committee meeting Report.

Finally, Steering Committee proposed Terms of References (ToRs) for next 13th MEDIAS coordination meeting that should take place in period 31 March - 2 April 2020 in Ljubljana (Slovenia) as follow:

<u>General issues:</u>

- to join and harmonize the ongoing acoustic surveys in the Mediterranean Sea and Black Sea;
- to provide information for management decisions;
- to provide input for stock assessment purposes concerning the stocks which are managed internationally;
- to provide information for Good Environmental Status in the MSFD.

<u>Specific issues:</u>

- to update MEDIAS handbook;
- to update the MEDIAS Website;
- to update the common work on the Special Issue in Mediterranean Marine Science foreseen for 2020;
- to work on geostatistical scripts to produce standardized NASC maps at the Mediterranean scale;
- to work/update on EchoR adaptation.

6.3. **MEDITS** presentation of MEDITS Steering Committee meeting outcomes (by Igor Isajlovic, Croatia)

The MEDITS Coordination meeting took place in Sete, France from 16 to 17 of April 2019. The main goal of the survey is to Monitor demersal resources of the Mediterranean. It is running since 1994, eleven countries are involved, about 1300 survey stations (Fig. 6.3.1). are trawled covering all trawlable areas over the shelf and upper slope (10-800m).

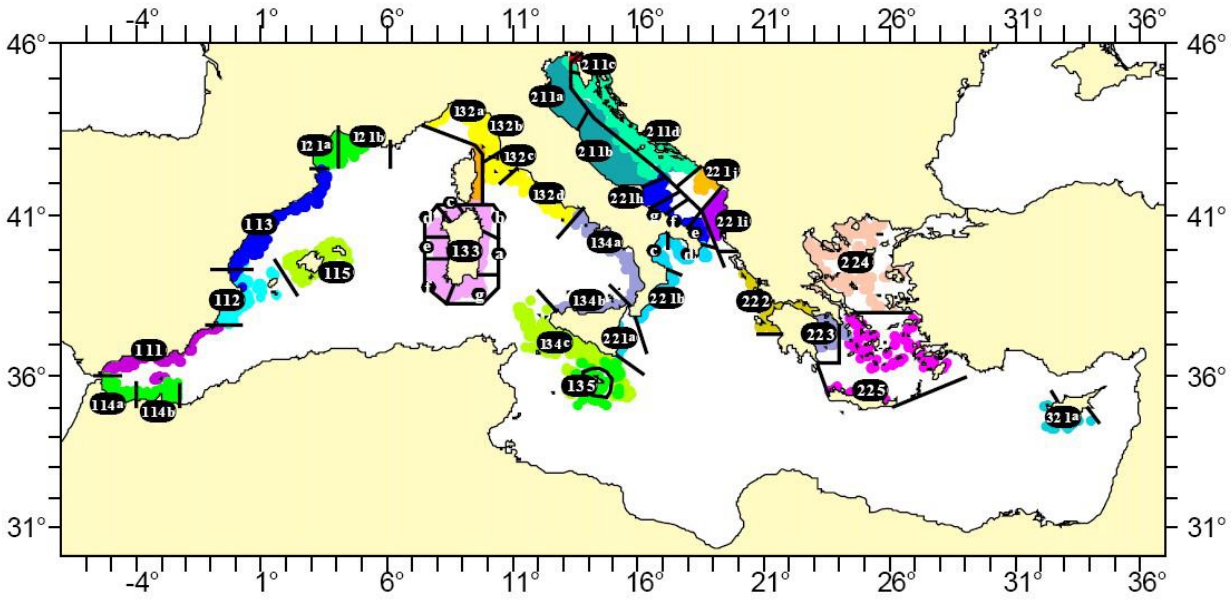


Figure 6.3.1. The MEDITS strata, with colour are indicated the areas covered by the MEDITS surveys.

Relevant presentations and reports revealed that all MEDITS surveys were accomplished on time without any major issues. The demersal surveys in the Black Sea were also successfully realized. Not any major issues are expected for 2019. Other issues discussed were the following:

- MEDITS Reference Taxonomic list (TM list) has been updated and is available in MEDITS web-site.
- The special volume of Scientia Marina with manuscripts based on MEDITS data is in the final preparatory stage (several papers are already available online) and it is expected to be released by the end of the year - beginning of 2020.
- Guidelines regarding the use of MEDITS data will be included in the MEDITS protocol.
- A scientific group will be established for the standardization of macrobenthos processing.
- The potential of a second survey was discussed (added value, practical problems).
- It was agreed that the MEDITS SharePoint will be held in ICES web-site.

- Survey data are currently contributing to the realization of three DG-MARE funded projects ("RECFISH", "STREAM", "MED-UNITS")
- The survey continues to contribute to the collection of data for assessing MSFD indicators
- The MEDITS group will continue to provide technical support to non EU MS for the accomplishment of MEDITS-compatible surveys in non-European GSAs, further to FAO/GFCM initiatives.
- MEDITS data will support GFCM activities related to the management of Vulnerable Marine Ecosystems (VME).

Next coordination meeting will be held in spring 2020 (exact date and venue has to be arranged).

7. Diadromous fish (TOR 7) (by Argyris Sapounidis, FRI, Greece)

During the RCG meeting, a thorough discussion on the various issues regarding diadromous species with emphasis on European eel, has taken place.

One of the problems discussed during the meeting was the dissimilar data provided by the fishermen for both European Eel and Salmon. As a result, the inability to proceed to a stock assessment for both diadromous species for all countries within their range expansion. Additionally, and since there are data calls from various sources (ICES, GFCM, etc.) requesting for data on various aspects of their fisheries, biology etc., it is not possible for data providers, to fill them in for the aforementioned reason, variability of the data collected by the fisherman. Towards to a solution for this issue, a common data call protocol was proposed and is in a process to be prepared by all agencies involved the study of European Eel.

There was a discussion on what the new EU-MAP should include regarding the parameters, such as biological, length, weight and age, to be recorded for the assessment of the species' population condition. Another issue discussed during the meeting were the request from the Eel Regulation to monitor all catches and additionally, to assess all the eel recruitment, the standing population and the migratory population, i.e. all three continental stages of the species, glass, yellow and silver eels. Until now only to a few Mediterranean Countries there was an assessment of the glass and yellow eel's population. It was mentioned that methodologies used in the northern countries for the assessment of glass eels, like electrofishing, are not applicable in the Mediterranean countries, since catches are in brackish waters. Moreover, the use of traps for glass eel were not successful. Therefore, there is lack of data on migration of recruits from the sea to the continental waters. However, and as concerns the assessment of the yellow eel population, a new approach will be tested in Greece and includes the use of traps (fyke nets) in rivers and lagoons to capture them. In terms to succeed a complete assessment of the eel's population in total, WGEEEL asked STECF on the methodology to estimate parameters of yellow and glass eels, but it was not accepted since it was not a formal request from an RCG.

There was a proposal to adopt another approach, according to which data on length, age, catches in different EMUs every year are gathered so as at the end of a period of 3 years they will have surveyed all EMUs. In this way it is possible to have a complete picture of the population's condition and at the same time reducing the total cost of the monitoring. But in case that this approach is accepted, a preparatory work should also be done, i.e. decide on the data that are required to be collect for each eel stage, including also the sampling period.

The group discussed also several methodologies on glass eels assessment, but it was mentioned that for this RCG it is important to define first how to approach eel data collection methodologies.

One more issue was the inability of some countries, mainly those from Black Sea to provide data on eel fisheries and the request to put a recommendation to be removed from the table of eel, since no eel fisheries, commercial nor recreational, is taking place there apart from recreational fisheries on carps and trouts. However, it was requested from Bulgaria to perform fisheries independent survey to confirm this.

8. Recreational Fisheries (TOR 8) (by Manos Koutrakis, FRI, Greece)

Review progress since last year's workshop

The available resources:

- GFCM handbook and pilot studies
- STREAM project: D5.1 and D5.2
- RCG Workshop in Ancona: results, recommendations and list of species
- ICES: list of species

Recommendations from working group:

- Member states should collect data on a regular basis
- Need to finalise the pilot studies, assess the outcomes and use them to generate plans for regular data collection
- Methodology for data collection shall be identified.
- The methodology should be based on statistically sound principles

The ICES WGRFS prepared a list of species that are targeted by recreational fisheries. A list of seven species have been proposed for the Mediterranean:

- *Epinephelus spp.*
- *Dentex dentex*
- *Dicentrarchus labrax,*
- *Sparus aurata*
- *Umbrina cirrosa,*
- *Sciaena umbra*
- *Diplodus sargus*

This will be discussed later on, for example if countries don't have the species in their country- the list will be to be revised.

The group assessed the progress made since 2018 workshop by reviewing the already available resources such as guidelines, projects, results, recommendations and available list of species from the work done by ICES WGRFS.

The group identified the need to finalise the GFCM handbook, discussed the available options of research based on the proposed by ICES species and exchange ideas on the proposal that countries will have to follow a multispecies approach every few years.

There was a query by some group members why the recommended list of species was decided in ICES WGRFS and not in the RCG and recognized that this is only indicative. The need to identify groups of species for the Med and BS was pointed out and the need to record LP was confirmed.

Issues regarding escapes from aquaculture were raised and it was recognized that this concerns the Mediterranean and it is an issue that has to be discussed further. The group acknowledged that the RCG should have the flexibility to remove certain species for certain countries without imposing thresholds, but that depends also on end-users needs.

The importance for the countries to identify the modes of recreational fishing (coastal, boat, spearfishing etc) and the number of recreational fishermen engaged in each one of them was pointed out.

Following a comment from the Commission the group clarified that many of the ICES recommended species are not present in both Mediterranean and BS and therefore countries have to conduct their own pilot studies, propose species and maybe create multiple groups of species suitable for each area.

The Commission proposed to the countries to take advantage of the roll-over of the EU-MAP and consider doing pilot studies over the next two years. The group acknowledged that this is the best option highlighting the importance of conducting telephone surveys especially in countries where there is no registry for recreational fishermen, recognizing however that there are limitations regarding the information that such an approach may provide.

9. Impact of management measures on data collection (TOR 9)

During the meeting, the discussion about the «Impact of management measures on data collection» focused on dissimilar data, that required by the national data collection and the data collections for the estimation of total discards for de minimis and LO. In particular, some members have pointed out that the data on discards from métiers, that required for de minimis and LO, there were not an obligation for the national data collection according to the table of discards presented in 2010. Also, it was discussed the need for a common methodological approach for the completion of the different data collections, and that this table should be reviewed to include the necessary data for the LO. In that point, it was highlighted that the LO is a control issue that should be collected in logbooks and reported by the fishermen.

The group recommended that the onboard observation for total discards to control LO should be continued. In addition, the members proposed the implementation of pilot studies in order to include the required references about the métiers in the table of discards.

10. Incidental by-catch of birds, mammals, reptiles and fish (TOR 10)

Under the STREAM project (EU Call MARE/2016/22), the methodological approach developed under the project MARE/2014/19 Med&BS for the monitoring of the incidental by-catch of vulnerable species (e.g. birds, marine mammals, sea turtles) has been reviewed and updated. An analysis of pros and cons of the approach was performed, also taking advantage of the preliminary results that came from the pilot studies carried out under the MSs work plans, with particular reference to the Italian pilot study on the monitoring of incidental by catch of vulnerable species. A cooperation started with GFCM experts working on the implementation of a monitoring program on the incidental catch of vulnerable species, and the colleagues involved in the FishPi2 project.

The new programme on data collection of incidental by-catch proposed by the STREAM project was designed taking into consideration three case studies, two in the Mediterranean (trawl fisheries in the Adriatic Sea and Gulf of Lions), and one in the Black Sea (beam trawl fishery targeting Rapana whelk). The monitoring programmes are based on a combined approach coupling the fleet observer monitoring scheme (already foreseen for the collection of biological data on commercial fisheries and discards with a self-sampling programme (dedicated log-books filled in by fishermen) through the proactive involvement of the fishing industry. This combined approach will intensify the sampling strategy in terms of coverage of the fishery compared to what was implemented under MSs pilot studies. Differently to what was proposed under MARE/2014/19 Med&BS grant, we propose to use the fleet observer programme foreseen under the DCF. In most of the cases, this programme should be further strengthened following the results of the analyses performed under STREAM WP3 on the sampling strategy optimization.

The new programme on data collection of incidental by catch was designed also with the aim of supporting evaluation of possible mitigation measures to minimize the unwanted catches. New handbooks and guidelines for the data collection were prepared for on-board observers and self-sampling.

The STREAM Final Report and all the deliverables can be downloaded at the following link:https://datacollection.jrc.ec.europa.eu/mare-2016-22-strengthening-regional-cooperation

11. Glossary

AR	Annual Report (of activities carried out by MS under the DCF)
WP	Annual Workplan
CFP	Common Fishery Policy (EU)
CR	Control Regulations (EU)
DCF	Data Collection Framework (follow up of DCR)
DC-MAP	Multi Annual Programme for Data Collection (follow up of DCF)
EEZ	Exclusive Economic Zone
EMFF	European Maritime and Fisheries Funds
EWG	STECF Expert Working Group
FPA	Fishing Partnership Agreement
GFCM	General Fisheries Commission for the Mediterranean (FAO)
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICES	International Council for the Exploration of the Sea
IOTC	Indian Ocean Tuna Commission
JSC	Joint Scientific Committees (of the FPA)
LDF	Long Distance Fishery
LM	Liaison Meeting
LP	Large Pelagic species
MS	Member State(s) (of the EU)
NA	North Atlantic
NP	National Programme (of activities carried out by MS under the DCF)
NS&EA	North Sea and Eastern Arctic
OP	Operational Programme
OST	Open Source Tools
PGCCDBS	Planning Group on Commercial Catches, Discards and Biological Sampling
PGECON	Planning Group on Economic Issues
PGMed	Mediterranean Planning Group for Methodological Development
RCG	Regional Coordination Group
RCM	Regional Coordination Meeting
RDB	Regional Data Base (of the RCM)
RDB S.C.	Regional Data Base Steering Committee
RFMO	Regional Fisheries Management Organization
RoP	Rules of Procedure
SCRS	Standing Committee on Research and Statistics (ICCAT)
SDEF	Standard Data Exchange Format
STECF	Scientific, Technical and Economic Committee for Fisheries
WCPFC	Western and Central Pacific Fisheries Commission
WKPICS	ICES Workshop on the Practical Implementation of Statistical Sound Catch Sampling Programmes
WP	Work Plan for data collection in the fisheries and aquaculture sectors

12. Annexes

Annex I. Agenda

RCG Med & BS 2019
Qawra, Malta
24-26 September 2019

Tuesday 24th September

09:00 -09:30

Adoption of Agenda, format of the report and Rapporteurs.

- *Welcome and Introduction of participants*
- *Adoption of the agenda*, subgroups formation, plenaries, rapporteurs

09:30-11:00

TOR 1. Review progress since 2018 RCG's and 2018- 2019 Liaison meetings

- Feed-back from Liaison meetings – 15th LM (Simona Nicheva) and 16th LM (Apostolos Karagiannakos)
- Discussion on RGC Decision meeting (05.09.19) and NC meeting (06.09.2019) (Apostolos Karagiannakos)

Coffee break 11:00 – 11:15

11:15- 12:45

TOR 2. Governance model for the regional coordination group.

- EU MAP revision meeting in Madrid in June (Maria González)
- Update on outcomes of the September meetings in Brussels (if available)
- Information on DCF legal framework and related legal acts (Venetia Kostopoulou)

12:45-13:00

TOR 9. Impact of management measures on data collection

Next steps and actions, data needs in regards to the Landing obligation

Lunch break 13:00 – 14:30

14:30- 16:00

TOR 6. Surveys

- Review 2018 regional coordination (MEDITS, MEDIAS) (Vjeko Tičina / Igor Isajlovic)
- Presentation of the outcome of STECF EWG 19-05 (Leyla Knittweis / Venetia Kostopoulou)
- Next steps and actions

Coffee break 16:00 – 16:15

16:15- 18:00

TOR 4. Regional plans

- Feedback from EU projects (STREAM; case studies WP3) (Isabella Bitetto via Skype)
- Standardization of ageing procedures for small pelagics in the Adriatic Sea
- Discussion on possibilities for the establishment of regional sampling plan for small pelagic fish in the Adriatic Sea – Ivana Vukov
- Regional work based on results from 2019 RCG Med& BS Data Call (Eirini Mantzouni /Charis Charilaou)
- Next steps and actions

Wednesday 25th September

09:00 – 10:00

TOR 7. Diadromous species

- Review progress since last year report for Diadromous species (Argyris Sapounidis)
- Next steps and actions

09:00 – 10:00

TOR 8. Recreational Fisheries

- Review progress since last year workshop (Manos Koutrakis)
- Review progress of pilot studies – MSs with pilot projects for recreational fisheries
- Role of RCG – how can regional coordination support pilot studies and sampling plans?
- Next steps and action

Coffee break 11:00 – 11:15

11:15 – 13:00

TOR 2. Governance model for the regional coordination group.

- Present the outcomes of different EU projects. (MARE/2016/22 grants Fish Hub) - Outcome from STREAM final report (Alessandro Ligas)
- Discussion and possible endorsement of outcomes by the NCs
- Next steps and actions

Lunch break 13:00 – 14:30

14:30- 16.00

TOR 3. End-user interactions and identification of end-user needs

- Feedback of end-user needs from ICES, GFCM, JRC/STECF, other end-users to the RCGs. – Leyla Knittweis, GFCM (Federico DeRossi via Skype)
- Feedback from the intersessional subgroup on data transmission issues and data requirements (Meeting with end-users) (Ivana Vukov)
- An overview from the RDB steering Committee: (Eirini Mantzouni / Stefanos Kavadas)
    - Discussion and possible adoption of the 2019 SC recommendations:
    - Data types, design and functionalities
    - Data policy agreement
    - RDB host
    - Cost and Funding
    - Steps forward

Coffee break 16:00 – 16:15

16:15- 17:00

- Continuation of the discussion about the RDB

17:00- 18:00

- Review of 2019 data calls and feedback from the Med& BS RCG to STECF and GFCM
- Next steps and actions

Thursday 26th September

09:00 – 11:00

TOR 10. Incidental by-catch of birds, mammals, reptiles and fish

- Review progress of pilot studies – Brief description of the Member States' achievements.
- Feedback from GFCM, STREAM WP4 (Alessandro Ligas)
- Next steps and actions

Coffee break 11:00 – 11:15

11:15-12:00

TOR 5. Data quality (assurance and control)

- Feedback from the End-users (JRC/STECF, GFCM via skype)

12:00- 13:00

- Update of Work Plans and Annual reports
- Next steps and actions

Lunch break 13:00 – 14:30

14.30 – 16:00

Plenary final results and conclusions

NC discussion and endorsement of issues raised

Coffee break 16:00 – 16:15

16.15 - 17:30

Next venue and chairs

AOB

Annex II. Participants

Name	Country	Institution	Role	email
Venetia Kostopoulou		European Commission - Directorate-General for Maritime Affairs and Fisheries	Policy Officer	venetia.kostopoulou@ec.europa.eu
Leyla Knittweis		Scientific, Technical and Economic Committee for Fisheries (STECF)	STECF member	leyla.knittweis@um.edu.mt
Apostolos Karagiannakos	Greece	Ministry of Rural Development and Food	National correspondent	akaragiannakos@minagric.gr
Manos Koutrakis	Greece	Fisheries Research Institute	Scientific coordinator	manosk@inale.gr
Angeliki Adamidou	Greece	Fisheries Research Institute	Biologist	adamidou@inale.gr
Argyris Sapounidis	Greece	Fisheries Research Institute	Researcher/Eel expert	asapoun@inale.gr
Stefanos Kavadas	Greece	HCMR	Mathematician/Fisheries scientist	stefanos@hcmr.gr
Eirini Mantzouni	Greece	Fisheries Research Institute	Biologist	emantzo@inale.gr
Ivana Vukov	Croatia	Ministry of Agriculture, Directorate of Fisheries (MA-DoF)	National correspondent	ivana.vukov@mps.hr
Igor Isajlovic	Croatia	Institute of Oceanography and Fisheries (IOF)	Scientific expert, technical coordinator	igor@izor.hr
Vanja Cikes Kec	Croatia	Institute of Oceanography and Fisheries (IOF)	Scientific expert	cikes@izor.hr
Vjekoslav Ticina	Croatia	Institute of Oceanography and Fisheries (IOF)	Scientific expert, MEDIAS chair	ticina@izor.hr
Alessandro Ligas	Italy	CIBM	Presentation of STREAM results	ligas@cibm.it
Andrea De Felice	Italy	IRBIM CNR	Scientific expert	andrea.defelice@cnr.it
Isabella Bitetto	Italy	COISPA Tecnologia & Ricerca	expert	bitetto@coispa.it
Paolo Carpentieri	Italy	MIPAAFT		paolocarpentieri@hotmail.com
Ilaria Costantini	Italy	CNR-IRBIM		ilaria.costantini@irbim.cnr.it
Antonio Cervantes	Spain	IEO	Biologist	antonio.cervantes@ieo.es

Maria Gonzalez	Spain	IEO	Biologist	maria.gonzalez@ieo.es
Bojan Marceta	Slovenia	Fisheries Research Institute of Slovenia - FRIS	Biologist	bojan.marceta@zzrs.si
Jernej Švab	Slovenia	Ministry of Agriculture, Forestry and Food	National Correspondent	jernej.svab@gov.si
Simona Nicheva	Bulgaria	Executive agency for fishries and aquaculture	National correspondent	simona.nicheva@iara.government.bg
Kolyo Zhelev	Bulgaria	Executive agency for fishries and aquaculture	Senior expert	kolyo.zhelev@iara.government.bg
Eleonora Fikovska	Bulgaria	Executive agency for fishries and aquaculture	Junion expert	eleonora.fikovska@iara.government.bg
Dimitar Dimitrov	Bulgaria	Institute of Oceanology-BAS	participant in surveys, geo-ecologist	dimpetdim@io-bas.bg
Elitsa Petrova	Bulgaria	Institute of fish resources	Director of Institute of fish resources	elitssa.petrova@gmail.com
Veselina Mihneva	Bulgaria	Institute of fish resources	Scientist, Institute of fish resources	vvmihneva@yahoo.com
Norbert Billet	France	IFREMER	expert	norbert.billet@ifremer.fr
Charis Charilaou	Cyprus	Department of Fisheries and Marine Research (DFMR)	Biologist, representing National Correspondent	ccharilaou@dfmr.moa.gov.cy, charis_ch19@hotmail.com
Maximov Valodia	Romania	National Institute for Marine Research	Scientific responsible for DCFR	vmaximov@alpha.rmri.ro
Kety Balaci	Romania	National Agency for Fisheries and Aquaculture	Head of Department Live Aquatic Resources and Statistic Data	kety.balaci@anpa.ro
Constantin Stroie	Romania	National Agency for Fisheries and Aquaculture	National Correspondent	constantin.stroie@anpa.ro
Reno Micallef	Malta	Department of Fisheries and Aquaculture, MESDC	National Correspondent	reno.micallef@gov.mt
Miriam Gambin	Malta	Department of Fisheries and Aquaculture, MESDC	Scientific Officer	miriam.gambin@gov.mt
Luca Pisani	Malta	Department of Fisheries and Aquaculture, MESDC	Scientific Officer	luca.pisani@gov.mt

Annex III. Recommendations from the RCG MED & BS 2019

Establishment of regional sampling plan for small pelagic fish in the Adriatic Sea	
RCG MED & BS 2019 **Recommendation 1**	RCG MED&BS 2019 recommends establishment of WGSPF-AS involving the relevant countries.
Justification	STREAM regional grant (MARE/2016/22) identified the most commercially important stocks and fisheries (métiers), beneficial for regional sampling, for which relevant Member States could share sampling tasks using agreed methodologies, ensuring coherent regional data sets with sufficient quality for the end-user needs, one of which is small pelagic fisheries in the Adriatic Sea (GSA 17 and 18). Main objectives for the establishment of the working group is to ensure level play in the area, coordinate activities with third countries and FAO AdriaMed and more closely follow management needs in the area (multiannual management plan for fisheries on small pelagic stocks in the GFCM-GSA 17 and 18) in order to harmonize data collection methodologies for fisheries dependent and fisheries independent information.
Follow-up actions needed	• Appointment of national coordinators by relevant MS and establishment of a working group for the coordination of data collection for small pelagic fish in the Adriatic Sea (WG SPF-AS). • Establishment of a regional sampling plan for small pelagic fish in the Adriatic Sea (RSP SPF-AS). • Establishment of a regional work plan for small pelagic fish in the Adriatic Sea (RWP SPF-AS).
Responsible persons for follow-up actions	relevant MSs
Time frame (Deadline)	• WG SPF-AS in December 2019 • RSP SPF-AS from 2021 • RWP SPF-AS from 2022

Workshop for Recreational Fishery.	
RCG MED & BS 2019 **Recommendation 2**	RCG MED&BS 2019 recommends the continuation of the workshop for Recreational Fishery.
Justification	MS should collect data on marine RF on a regular basis, as official statistics are missing in most Med&BS countries. Moreover, there is a need to finalize the pilot studies, assess the outcomes and use them in order to generate plans for regular data collection as well as to identify survey methods and data to be collected and adapted to the specific situation of each MS, on the basis of end user's needs. Finally, a common framework for sampling methodology is needed to assure that data collected is comparable among MS. Regional coordination for data collection is needed to ensure that data provided are at the required spatial resolution, temporal coverage and quality are provided to support scientific advice and management. On this basis, a workshop on RF for the Mediterranean basin is necessary, where all countries will participate, in order to finalize a list of species to be sampled, methodologies and type of data to be collected.
Follow-up actions needed	Workshop for RF with TORs: List of species; methodologies; type of data to be collected. A common list of species for all countries. If RCG chooses other species, request confirmation of country. Propose update of the list after a number of years.
Responsible persons for follow-up actions	MSs, RCG
Time frame (Deadline)	The outcomes of the workshop (list of species; methodologies; type of data to be collected) till 2020 (if possible before the RCG meeting 2020)

Speeding up the establishment of a scientific network for sampling optimization.	
RCG MED & BS 2019 **Recommendation 3**	RCG MED&BS 2019 recommends speeding up the establishment of a scientific network for sampling optimization.
Justification	The 2018 RCG Med&BS agreed on the need to set up a network of experts to be trained and use the tool developed under MARE/2016/22 STREAM project on sampling stratification and optimization of biological data. It was further agreed that MS should nominate experts to be part of the network. However, the scientific network for sampling optimization has not been established so far, since most of the MS have not nominated experts to be part of the network.
Follow-up actions needed	Med&BS NCs should nominate national experts for participating in the network on sampling optimization; the nominations should be communicated to the RCG Med&BS chairs. A training workshop should be organized on the use of the sampling optimization tools developed under STREAM project.
Responsible persons for follow-up actions	RCG Med&BS NCs, RCG Med&BS chairs, moderators of the scientific network for sampling optimization.
Time frame (Deadline)	November 2019

Training workshop on the use of the sampling optimization tools developed under STREAM project.	
RCG MED & BS 2019 **Recommendation 4**	RCG MED&BS 2019 recommends the organization of a training workshop on the use of the sampling optimization tools developed under MARE/2016/22 STREAM project.
Justification	Though training workshops have been organized under STREAM project on the use of the tools developed on sampling optimization, the RCG Med&BS 2019 identifies further training needs on the use of the developed tools, following feedback with the national experts involved in sampling optimization.
Follow-up actions needed	A training workshop should be organized on the use of the sampling optimization tools developed under STREAM project, addressing the needs of the national experts participating in the network for sampling optimization.
Responsible persons for follow-up actions	RCG chairs, MSs, moderators of the scientific network for sampling optimization.
Time frame (Deadline)	Within 2020.

Data quality checks developed under the STREAM project	
RCG MED&BS 2019 **Recommendation 5**	RCG Med&BS 2019 recommends applying the data quality checks developed under the WP6 of the STREAM project before submitting data to the relevant Data Calls
Justification	Procedures for improving and enhancing quality checks to detect and flag potential outliers and sources of bias in biological data can streamline the process of data preparation and submission to respond to the different data calls. WP6 of the STREAM project developed a set of quality checks to detect errors in both raw data (*a priori* quality checks) and in the raised data required by the end-users (*a posteriori* quality checks), using R-scripts. The *a priori* data quality checks aim at detecting errors directly on sampling data in the Regional Coordination Group for the Mediterranean and Black Sea (RCG Med&BS) formats for commercial sampling and commercial landings (CS and CL formats) concerning the measurements of biological variables (length, weight, maturity, sex, age) and landings. The *a posteriori* data quality checks are applied to the EU Mediterranean and Black Sea Data Call formats and provide information on the spatial coverage among the strata (i.e. quarter, metier) and on the assessment of the completeness of biological information. It also allows detecting records with discrepancies between the product of number of raised individuals and individual weight at age in the landings/discards and the total landings/discards by metier, quarter, species and GSA.
Follow-up actions needed	To support MSs experts to familiarize with the R tools developed to perform data quality checks, the network on the sampling strategy optimization will also use those scripts during their activity. This will also streamline the training workshop in view of the network. A calendar for the implementation of the quality checks was also provided by the STREAM project (see STREAM Final Report).
Responsible persons for follow-up actions	RCG, NCs
Time frame (Deadline)	2020

Fish stomach content analysis	
RCG MED&BS 2019 **Recommendation 6**	RCG Med&BS 2019 recommends implementing the monitoring of fish stomach contents following the protocols provided by the STREAM project
Justification	Stomach contents analysis is the primary method for qualitative estimation of dietary composition by investigating the prey items in the fish stomachs. The study of the feeding habits of fish based on the analysis of stomach content can provide important insights not only to assess food spectra at species level but also to understand the prey-predator relationships, useful aspects to contribute to multispecies stock assessment or to be included in ecological models as mentioned before. Stomach content data are also useful to evaluate the resource partitioning among the species inhabiting a particular habitat/fishing ground. At species level, the information on predator-prey relationship can also be helpful for a better evaluation of the natural mortality of the key exploited stocks.
Follow-up actions needed	The sampling and analysis protocols provided by STREAM (see Deliverable D4.1) will represent the basis for designing and implementing the data collection and analysis of stomach contents. Pilot studies on the species proposed by STREAM should be implemented under the Work Plans.
Responsible persons for follow-up actions	RCG, NCs
Time frame (Deadline)	2021

Biological parameters – ageing protocols	
RCG MED&BS 2019 **Recommendation 7**	RCG Med&BS 2019 recommends MSs to follow the agreed protocols from workshops for age reading. All MSs to harmonize age reading protocols for all target species, in case it is not already done.
Justification	Considering the possibility that different scientists/experts responsible for the research surveys and the biological monitoring, might use different age reading protocols for the same species within the same stock unit and at a regional level that may result in different age estimates, with aim to minimize uncertainties in age data, it is recommended MSs to ensure harmonized age readings among experts by developing and adopting common age reading protocols for target species that belong to the same stock unit and also same species at regional level. Different biological parameters are calculated from age data, and most of stock assessment models used are age-structured. Uncertainties in input data (i.e. age data) may consequently result in uncertainties of stock assessment outcomes.
Follow-up actions needed	MSs should make every effort to harmonize age reading and achieve common age reading protocols for fisheries dependent and fisheries independent data, on the level of MS and regional level.
Responsible persons for follow-up actions	RCG, MSs
Time frame (Deadline)	2020 onwards

Age reading workshop – Black Sea	
RCG MED & BS 2019 **Recommendation 8**	RCG MED&BS 2019 recommends the organization of an Age Reading Workshop on turbot (*Scophthalmus maximus*) and piked dogfish (*Squalus acanthias*).
Justification	Under the work of MARE/2016/22 STREAM project (WP7), institutes involved in Data Collection in the Black Sea reported lack of age standardization on rapa whelk, turbot and piked dogfish. Based on this finding, STREAM has proposed the organization of age reading workshops on turbot and piked dogfish, since there was already a workshop on age reading of rapa whelk. RCG Med&BS 2019 reviewed this proposal and agreed on the need to organise age reading workshops on turbot and piked dogfish.
Follow-up actions needed	Organization of an age reading workshop on turbot and piked dogfish.
Responsible persons for follow-up actions	RCG Med&BS chairs, NCs.
Time frame (Deadline)	By the end of 2021.

Continuation of Setting up of a Regional Database (RDB) for the RCG MED & BS	
RCG MED & BS 2019 **Recommendation 9**	RCG MED & BS 2019 considers the development of a regional database as an urgent priority in order to allow for the efficient use of the data received from the official RCG data calls and avoid duplication of work.
Justification	Article 9(3) of EU Regulation 2017/1004 of the EP and of the Council, on the establishment of a Union framework for the collection, management, and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) 199/2008 (recast). *"Regional coordination groups shall aim at developing and implementing procedures, methods, quality assurance and quality control for collecting and processing data with a view to enabling the reliability of scientific advice to be further improved. For that purpose, regional coordination groups shall aim to develop and implement regional databases."* Following the relevant recommendation of the RCG 2018, the RDB Steering committee (SC) convened in January 2019. The main decisions that were presented and agreed during the RCG 2019, include: • the RDB should contain, as a first step, detailed biological and aggregated transversal data (i.e. landings and effort); • the data policy document, dealing with data confidentiality and data ownership issues; • the main functionalities for the RDB include the estimations required for the various data calls, as well as further analyses that will be proposed by the MS; • existing development initiatives (like RDBES in ICES) needs to be incorporated in the new RDB; • the development will be undertaken by a technical committee proposed by the MS.
Follow-up actions needed	NCs will send the nominations for the RDB Technical Workgroup, and potential updates on the persons of the RDB SC, by the end of October 2019. In addition, a questionnaire distributed by the SC Chairs concerning the current procedures followed by the MS for the data calls and the data quality controls should be submitted at the same time. A representative of the SC will attend the ICES RDB/RDBES Steering Committee (SCRDB) meeting on Dec 3rd - 5th at ICES Secretariat HQ. Subsequently, a joint meeting of the SC and the Technical Workgroup will be organized during January 2020. Issues to be decided on include: (a) setting up the technical roadmap for the RDB development, (b) identifying the needs and priorities both at the regional level and also for every MS regarding the transition to the RDB, (c) Cost estimation.

Responsible persons for follow-up actions	NCs will send the nominations for the RDB Technical Workgroup, and potential updates on the persons of the RDB SC, by the end of October 2019. Eirini Mantzouni, Researcher from the Fisheries Research Institute, and Stefanos Kavadas, fisheries scientist from the HCMR – Greece, will chair the joint SC+ Technical WG meeting during early 2020. The SC will then decide upon its final Chair(s).
Time frame (Deadline)	before RCG 2020.

Training workshop on PETS identification	
RCG MED & BS 2019 **Recommendation 10**	RCG MED&BS 2019 recommends the organization of a Training workshop on PETS identification for all categories of PETS (marine mammals, sea birds, sharks and rays, reptiles).
Justification	Under the work of MARE/2016/22 STREAM project (WP7), training needs on PETS identification have been reported for all categories of PETS (marine mammals, sea birds, sharks and rays, reptiles). Institutes with expertise in PETS identification have also been reported (available in STREAM Deliverable.7.1). STREAM has proposed RCG Med&BS to consider two training workshops on PETS identification for the period 2020-2021, one dealing with the identification of sharks and rays, and the other with the identification of marine mammals, sea birds and reptiles. RCG Med&BS 2019 reviewed this proposal and agreed to organize one training workshop on PETS identification, which will cover all categories of PETS (marine mammals, sea birds, sharks and rays, reptiles).
Follow-up actions needed	A training workshop on PETS identification should be organized covering all categories of PETS (marine mammals, sea birds, sharks and rays, reptiles).
Responsible persons for follow-up actions	RCG Med&BS chairs, NCs.
Time frame (Deadline)	By the end of 2021.

Annex V. RCG MED & BS – 2019 Data Call

RCG MED & BS - Data call 2018

In accordance with the EU DCF (Regulation (EU) 2017/1004), the RCG chairs for the Med & BS herewith asks Member States to provide data at DCF level 6 **by 5th September 2019**. The characteristics of the data required are described below.

Content

The 2019 data call requests data for the period 2016-2018 and is based on tables used in the past by the Group, for addressing Ranking system of métiers for Med & BS and Landing template for Med & BS.

The simplified SDEF format organized in 3 tables dedicated to Landings, Efforts, Sampling for addressing issues related to sampling optimization and quality will not be requested for 2019, following the upgraded work carried out under Project STREAM (MARE/2016/22).

RCG Med & BS Data Call Content	**Data required**	**Data file**	**Species**
Ranking system for the Mediterranean and for the Black Sea	Landings, Effort, Value	Ranking_Med&BS Table_2018 RCMMEDBS Data Call	All species landed **(combined)**
Review and update the landing template for the Mediterranean and for the Black Sea	Landings	Landings template_2018 RCMMEDBS Data Call	Species included in Landings template

Detailed data and table descriptions are provided in the relevant data files.

Feedback and data transmission

Data should be sent by mail to the RCG Med&BS and PGMed chairs (e mail addresses below) in xlsx or csv format. Detailed instructions are in the templates. If any technical difficulty is encountered to provide the data, please contact for support Charis Charilaou (ccharilaou@dfmr.moa.gov.cy).

Note that data submitted will only be used for the purpose of the working group and will not be stored in any database. Outputs from the ToRs will be in the form of tables containing aggregated data, as it was the case the previous years.

We look forward to your cooperation.

20/07/2019

Apostolos Karagiannakos chair RCG Med&BS, syg023@minagric.gr

Simona Nicheva co chair RCG MED&BS simona.nicheva@iara.government.bg

Annex VI. Landings template for 2019 RCG MEDBS Data Call (for years 2016, 2017, 2018)

		Member State:				
Species		**Area**	**2016**	**2017**	**2018**	**Average landings (t)**
European Eel	*Anguilla anguilla*	all areas in the Med				
Giant red shrimp	*Aristaeomorpha foliacea*	all areas in the Med				
Red shrimp	*Aristeus antennatus*	all areasin the Med				
Bogue	*Boops boops*	1.3, 2.1, 2.2, 3.1, 3.2				
Dolphinfish	*Coryphaena equiselis*	all areas in the Med				
Dolphinfish	*Coryphaena hippurus*	all areas in the Med				
Sea bass	*Dicentrarchus labrax*	all areas in the Med				
Horned octopus	*Eledone cirrhosa*	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*	all areasin the Med				
Anchovy	*Engraulis encrasicolus*	Black Sea GSA 29				
Grey gurnard	*Eutrigla gurnardus*	2.2, 3.1				
Squid	*Illex spp., Todarodes spp.*	all areas in the Med				
Billfish	Istiophoridae	all areas in the Med				
Common squid	*Loligo vulgaris*	all areas in the Med				
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				
Whiting	*Merlangius merlangus*	Black Sea GSA 29				
Hake	*Merluccius merluccius*	all areasin the Med				
Blue whiting	*Micromesistius poutassou*	1.1, 3.1				
Grey mullets	Mugilidae	1.3, 2.1, 2.2, 3.1				
Red mullet	*Mullus barbatus*	all areasin the Med				
Red mullet	*Mullus barbatus*	Black Sea GSA 29				
Striped red mullet	*Mullus surmuletus*	all areas in the Med				
Common octopus	*Octopus vulgaris*	all areas in the Med				
Norway lobster	*Nephrops norvegicus*	all areas in the Med				
Pandora	*Pagellus erythrinus*	all areas in the Med				
White shrimp	*Parapenaeus longirostris*	all areas in the Med				
Caramote prawn	*Penaeus kerathurus*	3,1				
Turbot	*Psetta maxima*	Black Sea GSA 29				
Sardine	*Sardina pilchardus*	all areas in the Med				
Mackerel	*Scomber* spp.	all areas in the Med				
Cuttlefish	*Sepia officinalis*	all areas in the Med				
Sole	*Solea solea*	1.2, 2.1, 3.1				
Gilthead sea bream	*Sparus aurata*	1.2, 3.1				
Picarels	*Spicara smaris*	2.1, 3.1, 3.2				
Sprat	*Sprattus sprattus*	Black Sea GSA 29				
Mantis shrimp	*Squilla mantis*	1.3, 2.1, 2.2				
Mediterranean horse mackerel	*Trachurus mediterraneus*	All areas in the Med				
Mediterranean horse mackerel Horse mackerel	*Trachurus mediterraneus* *Trachurus trachurus*	Black Sea GSA 29 all areas in the Med				
Horse mackerel	*Trachurus trachurus*	Black Sea GSA 29				
Tub gurnard	*Chelidonichthys lucerna*	1.3, 2.2, 3.1				
Clam	Veneridae	2.1, 2.2				
Transparent gobid	*Aphia minuta*	GSA 9,10,16 and 19				
Sand smelt	*Atherina* spp	GSA 9,10,16 and 19				
Poor cod	*Trisopterus minutus*	All Regions				
All commercial Sharks, rays & skates*	Selachii, Rajidae	All Regions				

* To be reported at species level

Format:

Landings

Field name	Description
Total landings (t)	landing in tons

Annex VII. Ranking of metier for Med&BS, 2018 RCG MED & BS Data Call

File:

Flag Country	GSA	Year	Fishing Activity Category Level 6	Specify MISC / OTH	Landings (kg)	Effort (days-at-sea)	Value (€)

Format:

Value

Field name	Description / Comments
Flag country	ISO 3166 – 1 alpha-3 codes. The flag country of the vessel.
GSA	See GFCM Geographic stratification coding.
Year	Years required: 2016, 2017, 2018.
Fishing activity category Level 6	Select from Fishing activity category level 6 code list
Specify MISC / OTH	If needed specify
Landings (kg)	Landings in kg
Effort (days-at-sea)	Number of days at sea as defined in Commission Implementing Decision (EU) 2016/1251 adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors for the period 2017-2019.
Value (€)	In euro

Codes:

GFCM geographic stratification_GSA		Country		Fishing activity category level 6	
Code	**Description**	**Code**	**Description**	**Code**	**Description**
GSA1	Northern Alboran Sea	BGR	Bulgaria	DRB_MOL_0_0_0	Boat dredge for molluscs
GSA2	Alboran Island	CYP	Cyprus	FPN_LPF_0_0_0	Stationary uncovered pound nets for large pelagic
GSA3	Southern Alboran Sea	ESP	Spain	FPO_DEF_0_0_0	Pot and Traps for demersal species
GSA4	Algeria	FRA	France	FYK_CAT_0_0_0	Fyke nets for eels
GSA5	Balearic Island	GRC	Greece	FYK_DEF_0_0_0	Fyke nets for demersal species
GSA6	Northern Spain	HRV	Croatia	GND_DEF_0_0_0	Driftnets for demersal fish
GSA7	Gulf of Lions	ITA	Italy	GND_SPF_0_0_0	Driftnets for small pelagic fish
GSA8	Corsica Island	MLT	Malta	GNS_DEF_360-400_0_0	Set gillnets for demersal fish (for Black Sea region)
GSA9	Ligurian and North Tyrrhenian Sea	ROU	Romania	GNS_DEF_>=16_0_0	Set gillnets for demersal fish according meshsize regulation
GSA10	South Tyrrhenian Sea	SVN	Slovenia	GNS_SLP_>=16_0_0	Set gillnets for small and large pelagics according meshsize regulation
GSA11.1	Sardinia (west)			GTR_DEF_>=16_0_0	Set trammel nets for demersal species according meshsize regulation
GSA11.2	Sardinia (east)			LA_SLP_14_0_0	Lampara nets according to meshsize regulation
GSA11	Sardinia			LHP-LHM_FIF_0_0_0	Hand and Pole lines for finfish
GSA12	Norther Tunisia			LHP-LHM_CEP_0_0_0	Hand and Pole lines for cephalopods
GSA13	Gulf of Hammamet			LLD_LPF_0_0_0	Drifting longlines for large pelagic
GSA14	Gulf of Gabes			LLS_DEF_0_0_0	Set longlines for demersal fish
GSA15	Malta Island			LTL_LPF_0_0_0	Trolling lines for large pelagic
GSA16	South of Sicily			OTB_DEF_>=40_0_0	Bottom otter trawl for demersal species
GSA17	Northern Adriatic			OTB_DWS_>=40_0_0	Bottom otter trawl for deep water species
GSA18	Southern Adriatic Sea			OTB_MDD_>=40_0_0	Bottom otter trawl for mixed demersal and deep water species
GSA19	Western Ionian Sea			OTM_MPD_>=13_19_0_0	Pelagic trawl according meshsize regulation (for Black Sea region)
GSA20	Eastern Ionian Sea			OTM_MPD_>=20_0_0	Midwater otter trawl for mixed demersal and pelagic species
GSA21	Southern Ionian Sea			PS_LPF_14_0_0	Purse seine for large pelagic
GSA22	Aegean Sea			PS_SPF_>=14_0_0	Purse seine for small pelagics according meshsize regulation
GSA23	Crete Island			PTM_SPF_>=20_0_0	Pelagic pair trawl for small pelagic species
GSA24	North Levant			SB-SV_DEF_0_0_0	Beach and boat seines for demersal species
GSA25	Cyprus Island			TBB_DEF_0_0_0	Beam trawl for demersal trawling
GSA26	South Levant			MISC	Miscellaenous metiers (defined at national level)
GSA27	Levant			OTH	Other metier, included in Appendix IV of DCF Decision 93/2010 for the region, but not regionally agreed at level 6
GSA28	Marmara Sea				
GSA29	Black Sea				
GSA30	Azov Sea				

Annex VIII. Presentations

Update on the state of play of Data Collection Framework (DCF): EU Multiannual Program (EU MAP) and National Work Plans for data collection

DG MARE, Unit C3

RCG Med & Black Sea, 24-26 September 2019, Malta

EU-MAP update
(COM Implementing Decision 2016/1251)

COM has worked in a 2-step approach during 2019-2020:

Step 1. Renewal of current EU-MAP provisions

Step 2. Revision of EU-MAP

+ Work Plan template to follow soon after the EU-MAP contents have been stabilized

Step 1. Renewal of current EU-MAP provisions

Legal requirements under the new DCF (Reg. 2017/1004):

The EU-MAP needs to be split into:

- a COM Delegated Act (EP and Council scrutiny on biological, environmental and socio-economic data for two months after adoption)
- a COM Implementing Act (thresholds for data collection and list of surveys. No need of scrutiny by EP and Council)

Both the EU-MAP renewal and revision will need to abide by this split.

Step 1. Renewal of current EU-MAP provisions

The renewed EU MAP was split into:

COMMISSION DELEGATED DECISION (EU) 2019/910 of 13 March 2019 establishing the multiannual Union programme for the collection and management of biological, environmental, technical and socioeconomic data in the fisheries and aquaculture sectors

COMMISSION IMPLEMENTING DECISION (EU) 2019/909 of 18 February 2019 establishing the list of mandatory research surveys and thresholds for the purposes of the multiannual Union programme for the collection and management of data in the fisheries and aquaculture sectors

Both acts are in force between 2020-2021 but can be repealed earlier (in 2021) if the adoption of the EU-MAP revision is finalised during 2020. The aim is to have the revised EU-MAP in force as of 2021.

Step 2. Revision of EU-MAP

We need to streamline also the content of EU MAP to the new DCF legal framework (Reg. 2017/1004):

- RCG tasks (methodologies, regional databases)
- Regional work plans
- Provisions on methodologies deleted from EU MAP, replaced by process on their determination (RCGs, WPs)
- Subsidiarity and proportionality principles (Lisbon Treaty)

Step 2. Revision of EU-MAP

The aim to **preserve the core requirements** of the EU-MAP and to make adjustments on a case by case basis, as well as to 'convert' pilot studies into data collection requirements.

The EU-MAP should contain:

- Definitions not defined elsewhere (CFP, DCF, CR, EMFF)
- Basic principles on data quality
- Detailed data requirements (in line with the CFP)
- Thresholds for mandatory data collection and surveys

The EU-MAP should **not** contain:

- Methodologies - how to collect data: in WPs
- Details that may vary frequently or by sea basin: decided/published by RCGs to be put in WPs

Step 2. Revision of EU-MAP

The EU-MAP revision involves:

- stakeholder consultation among which end users of data and the Regional Coordination Groups - RCGs (for biological data) and the Planning Group for Economics – PGECON (for socio-economic data).

- STECF evaluation

- legal proceedings to adopt the revised EU-MAP DA and IA as well as the WP template (minimum of 9 months)

Step 2. Revision of EU-MAP

Steps in the process:

November 2018: first brainstorming during the STECF EWG 18-18 on *Evaluation of Work Plans & Data Transmission failures* based on the results of an ad hoc contract summarizing existing recommendations for revision

December 2018: consultation of RCGs, PGECON and main end users (eg. ICES, STECF, RFMOs) on necessary changes on the EU-MAP – final replies received end June 2019, processed through an ad hoc contract.

May 2018: STECF EWG 19-05 on *revision of research surveys at sea*

July – September 2019: MARE consultation on the draft contract results

September 2019: Liaison and National Correspondents Meeting (3-5 and 6 September 2019)

STECF EWG 19-12 on *Revision of the EU Multiannual Plan for data collection (EU-MAP) after 2020* (16 – 20 September) – STECF November Plenary

STECF EWG 19-12 on EU MAP revision
(16 – 20 September, Brussels)

The EWG reviewed all input received so far (previous EWGs, stakeholders, COM) and, using as a basis the new DCF legal framework (Reg. 2017/1004), provided a draft proposal on:

- EU MAP content including DA and IA
- Work Plan template content

National Work Plans for 2020 and onwards
(COM Implementing Decision 2016/1701)

Current Work Plans applicable until end 2019 – new WPs needed as of 2020

For **2020-2021** the current WP template applies and MS have to submit a WP by October 31st 2019, to be followed by STECF evaluation and COM adoption

For **2022 and onwards** a new revised WP template will be adopted. If the new EU-MAP is adopted already in 2020, the new WP template will also be adopted and applicable as of the same date.

REGIONAL COORDINATION GROUP FOR THE MEDITERRANEAN & BLACK SEA

TOR 3. End-user interactions and identification of end-user needs

Feedback from the intersessional subgroup on data transmission issues and data requirements (Meeting with End-users of Scientific Data)

24 – 26 September, 2019 – Quawra, Malta

Co-funded by the European Union

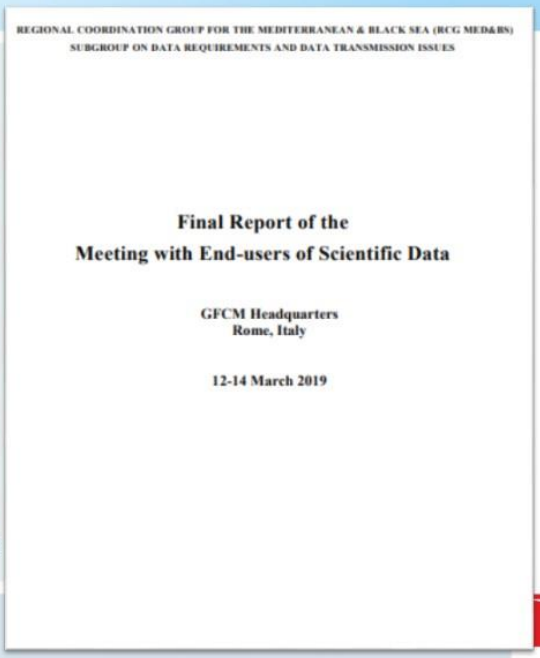
SUBGROUP ON DATA TRANSMISSION ISSUES AND DATA REQUIREMENTS

MEETING WITH END-USERS OF SCIENTIFIC DATA

Date and venue: 12-14 March 2019, GFCM HQ, Rome, Italy

Participants: 18 including 3 NCs, 7 experts from 5 MS, 3 GFCM representatives, one fisheries data quality specialist invited by GFCM and one JRC representative, 3 DG MARE representatives (skype)

Chair: Ivana Vukov, MA-DoF, Croatia

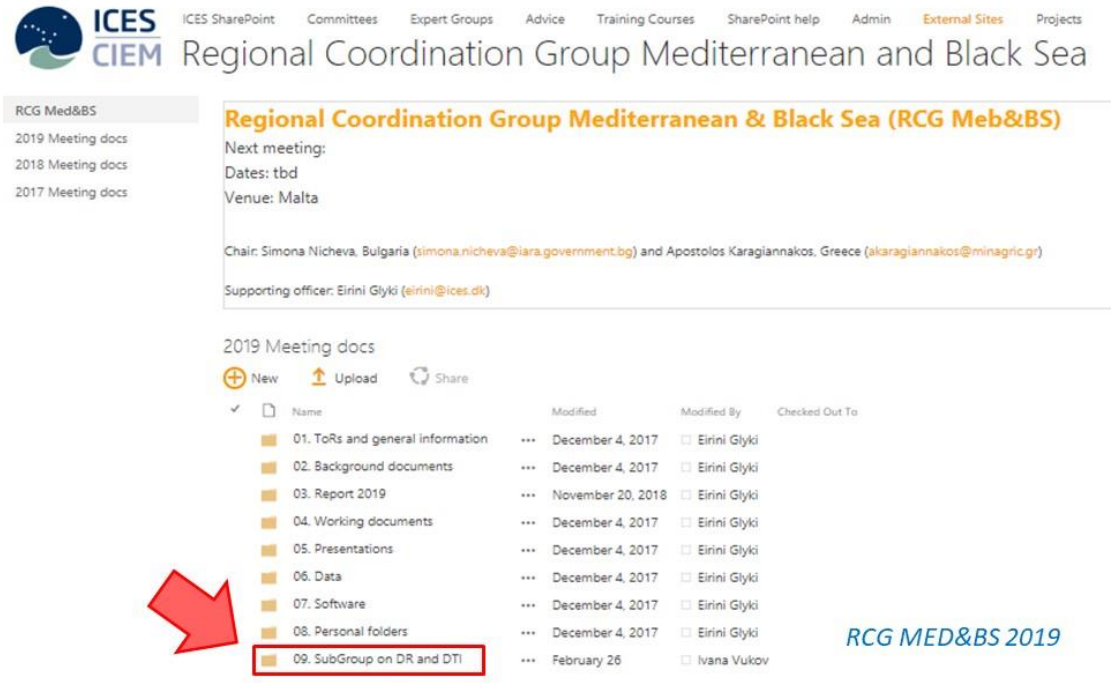

REGIONAL COORDINATION GROUP FOR THE MEDITERRANEAN & BLACK SEA (RCG MED&BS)
SUBGROUP ON DATA REQUIREMENTS AND DATA TRANSMISSION ISSUES

Final Report of the
Meeting with End-users of Scientific Data

GFCM Headquarters
Rome, Italy

12-14 March 2019

ICES SHARED FOLDER



RCG MED&BS 2019

ICES SHARED FOLDER



RCG MED&BS 2019

OBJECTIVES OF THE MEETING WITH END-USERS

Information on the current state of play

Overview of data requirements and data transmission issues at regional level in 2018

Information provided by end-users

GFCM

- GFCM fisheries data submission calendar in 2019
- GFCM procedures for the transmission of national data by CPCs and use of data
- Progress on the GFCM data quality indicators on the DCRF online platform

DG MARE

- Identification of data needs in 2019 and process to design the data calls
- Evaluation of data transmission issues

STECF/JRC

- Data quality checking procedures and communication with MS
- Description of JRC database management - data storage and data processing procedures



OBJECTIVES OF THE MEETING WITH END-USERS

Division into two subgroups:

Data Transmission Issues (Subgroup 1)

- Assessment of data transmission issues in 2018
- Possibilities to improve the process of data quality checking procedures and data transmission monitoring

Data Requirements (Subgroup 2)

- Identify discrepancies between formats and codification used for the Fleet Economic, FDI and Med&BS data calls
- Explore possibilities to harmonize data formats and standardize codification
- Identify opportunities to avoid duplication of data requested in dependence to data availability and deadlines for data submission



OBJECTIVES AND EXPECTED RESULTS

Objective	Expected result
Improve communication with end-users	Collaborate with end-users to identify problems and prioritize actions to progress and improve quality of transmitted data.
Improve data quality	Review and provide feedback on end-user data calls to avoid duplication of reporting of same datasets or reporting on data not used by end-user.
Improve longterm planning	Include RCG in the planning of data calls and data requirements. Establish registry of data requirements on regional level.
Lower the number of data transmission failures	Provide feedback and assessment of data transmission issues on a regional level to the end-user prior to STECF evaluation of data transmission issues. Propose ways to improve the communication and feedbacks on data transmission issues.
Improve the process of compliance assesstment	Provide information to DG MARE on how to link recommendations, derrogations, sampling protocols (AWP) with data transmission monitoring (data requirements and data transmission issues) in one platform (database approach).

OUTCOMES - RECOMMENDATION 1

Draft Terms of Reference and work plan

- The Subgroup considered that clear rules and procedures for the Subgroup are needed. ToR was drafted after the meeting and is provided in Annex V of the Report
- To follow-up on main conclusions and achieve the expected results, the Subgroup agreed that a time frame for expected results is needed. Work plan for 2019 was drafted after the meeting and is provided in the Report



OVERVIEW OF DATA REQUIREMENTS IN 2018

DG MARE request from 12 Dec 2018 on the **number of data calls received yearly** in the period 2014-2018.

Aim identified in the request:

„As you know, we want to improve the Data Transmission process as we tried to analyse the DT issues for the current year 2018. Following this exercise, we would like to know the number of data calls you face yearly, a complete list of them would be even better but it is not absolutely necessary.

We assume that the number of data calls you receive is the same to the number of data calls you reply to, please specify if it is not the case."

► ***SharedFolder: Data-call Registry per MS (folder 03. Working documents)***



OVERVIEW OF DATA REQUIREMENTS IN 2018

All 10 Med&BS MS replied to the DG MARE request however the replies were variying depending on how each MS interpreted the request.

- 1 MS provided only the number of DC
- 3 MS provided information only for 2018
- 6 MS provided information for 2014-2018

Previously DG MARE provided a list od data requirements (Repository on the DCF website; Last update: 10.02.2015)

- Planning of DCF data calls in 2015: DG MARE data calls, ICES meetings with potential use of DCF data as basis of scientific advice and GFCM deadline for data submission – in total 67 „data needs/data calls" are listed for 2015

► ***SharedFolder: List of DCF data calls in 2015 (folder 02. Background documents)***



OVERVIEW OF DATA REQUIREMENTS IN 2018
- NUMBER OF DATA CALLS PER MS -

MS	2014	2015	2016	2017	2018	Replies
Bulgaria					66	Number of data calls for the period 2014-2017 is similar to 2018.
Croatia					61	Number of data calls for the period 2014-2017 is similar to 2018.
Cyprus	7	6	6	8	10	Number of data calls received is not the same with the number of data calls replied.
France	33	34	48	63	53	
Greece	4	3	4	5	5	Only DG MARE data calls are included.
Italy	8	7	24	28	30	
Malta					46	Number of data calls for the period 2014-2017 is similar to 2018.
Romania	7	5	6	13	13	
Slovenia	21	20	21	32	30	
Spain					> 200	Table was removed as it contained all regions.

► *SharedFolder: Data-call Registry per MS (folder 03. Working documents)*

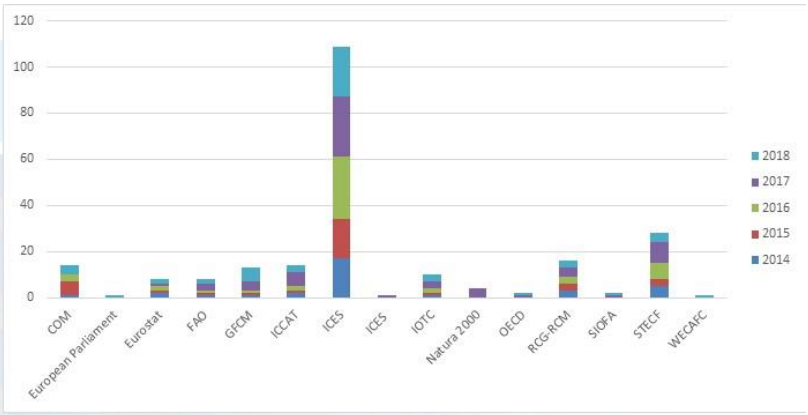
EXAMPLE: FRANCE

Number of data requests per end-user

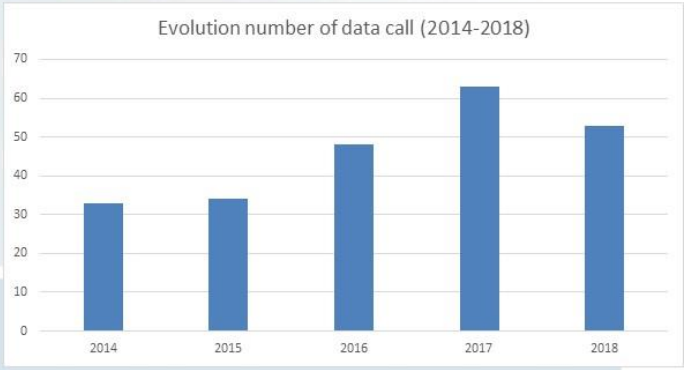
End-user	2014	2015	2016	2017	2018	Total général
COM	1	6	3		4	14
European Parliament					1	1
Eurostat	2	1	2	1	2	8
FAO	1	1	1	3	2	8
GFCM	1	1	1	4	6	13
ICCAT	2	1	2	6	3	14
ICES	17	17	27	26	22	109
ICES				1		1
IOTC	1	1	2	3	3	10
Natura 2000				4		4
OECD				1	1	2
RCG-RCM	3	3	3	4	3	16
SIOFA				1	1	2
STECF	5	3	7	9	4	28
WECAFC					1	1
Total général	**33**	**34**	**48**	**63**	**53**	**231**

RCG MED&BS 2019

No of data requests per end-user (France)



No of data requests per year (France)



RCG MED&BS 2019

OUTCOMES - RECOMMENDATION 2

Data requirements registry

- The subgroup considered that currently there is no compiled list of data requirements. Data requirements registry is needed in order to avoid overlapping data-calls as much as possible taking into account data availability at MS and regional level.
- The data requirements registry should be completed at MS level and a compilation of data requirements for Med&BS in 2019 should be provided to DG MARE by the end of the year. The format of the Data requirements registry is provided in Annex VI of the Report

RCG MED&BS 2019

OUTCOMES - RECOMMENDATION 3

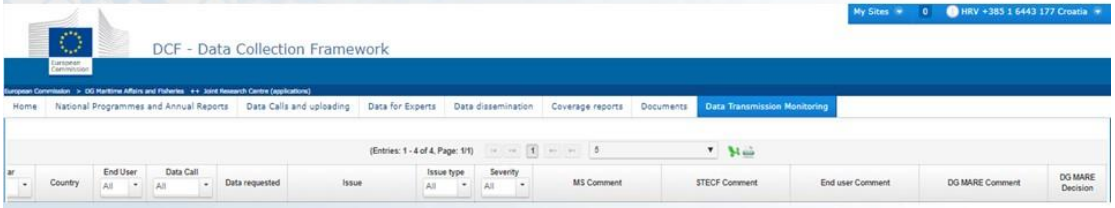
Technical document

- The subgroup agreed that a technical document, containing information on data not collected due to derogations, thresholds or any other reasons (e.g. already resolved historical coverage issues) is needed. The aim of this document will be to give a clear picture for the data which is not collected to facilitate the work of the experts participating in the relevant EWGs and minimize data transmission issues. Instead of consulting all the MS WPs, the experts could use this file to understand the data specificities of the MS. The document will be compiled with inputs from each MS and afterwards provided to the relevant EWG chairs and JRC.
- The format of the Technical document is provided in Annex VII of the Report

OVERVIEW OF DATA TRANSMISSION ISSUES

DG MARE provided an extract from the compliance platform for the period 2014-2018.

Data transmission monitoring tool, DTMT (previously „compliance platform"):
https://dcallnet.jrc.ec.europa.eu/web/dcf/dtmt



► ***SharedFolder: Extract from DTMT (folder 03. Working documents)***

OVERVIEW OF DATA TRANSMISSION ISSUES

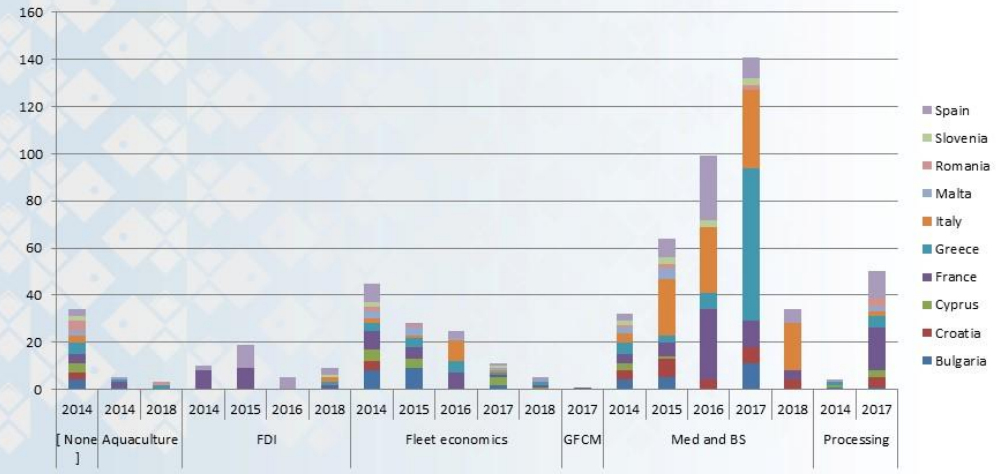
Data transmission issues in 2018 per MS

- In total 51 issues have been identified in 2018 by various STECF EWGs

Data call	IT	ES	FR	HR	GR	BG	SI	CY	RO	Total RCG
Aquaculture					2				1	**3**
FDI	2	3	1		1	1	1			**9**
Fleet economics		2	1		1			1		**5**
Med and BS	20	6	4	4						**34**
Total MS	**22**	**11**	**6**	**4**	**4**	**1**	**1**	**1**	**1**	**51**

OVERVIEW OF DATA TRANSMISSION ISSUES

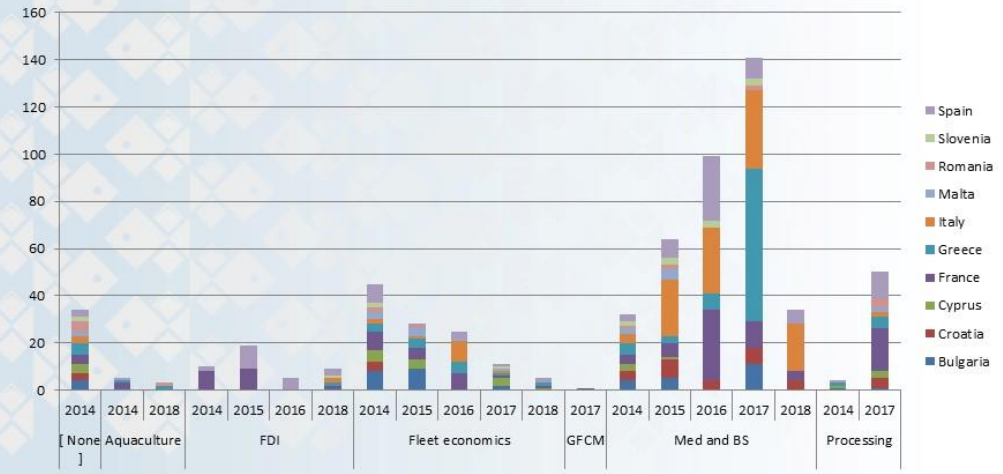
Data transmission issues 2014-2018 per data call



RCG MED&BS 2019

OVERVIEW OF DATA TRANSMISSION ISSUES

Data transmission issues 2014-2018 per data call



OUTCOMES - RECOMMENDATION 4

DOCUMENTS FOR END-USERS

1. ***Input for STECF PLEN 19-01 Spring plenary meeting***
2. ***Input for DG MARE and STECF on data transmission issues evaluation for 2018***
3. ***Input for GFCM on data transmission to GFCM***

OUTCOMES - RECOMMENDATION 4

1. Input for STECF PLEN 19-01 Spring plenary meeting

- Subgroup provided an opinion about the Data transmission monitoring tool (DTMT) and on the categorization of the data transmission issues. Summary on Subgroup discussion and recommendations regarding the DTMT was provided to DG MARE for consultation during the STECF Plenary Session on 'State of play and future guidelines on Data Transmission Failures' from 25-29 March 2019 (STECF PLEN 19-01) (Input I of the Report).
- The input was flagged as preliminary pending approval at the RCG level. For this reason the list of data transmission issues was not provided to the STECF spring plenary meeting.

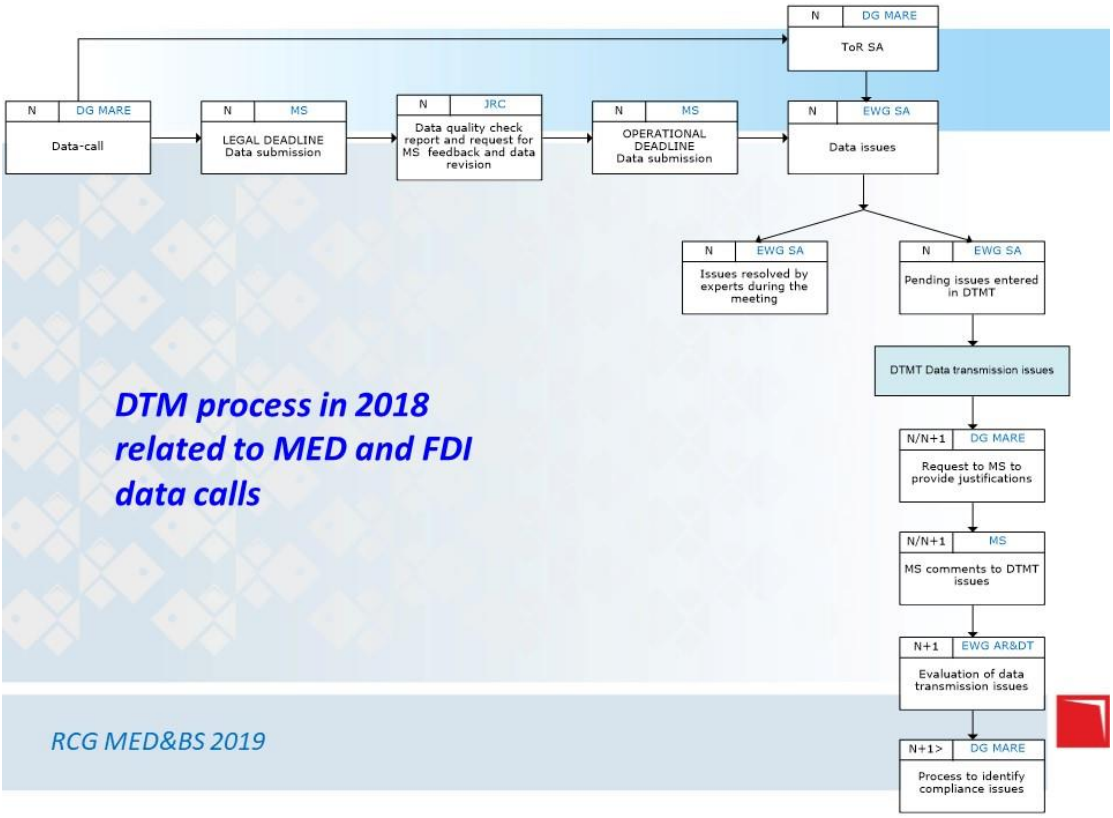


1. Input for STECF PLEN 19-01 Spring plenary meeting RECOMMENDATIONS FOR STECF

Main conclusions regarding the data transmission issues and DTMT

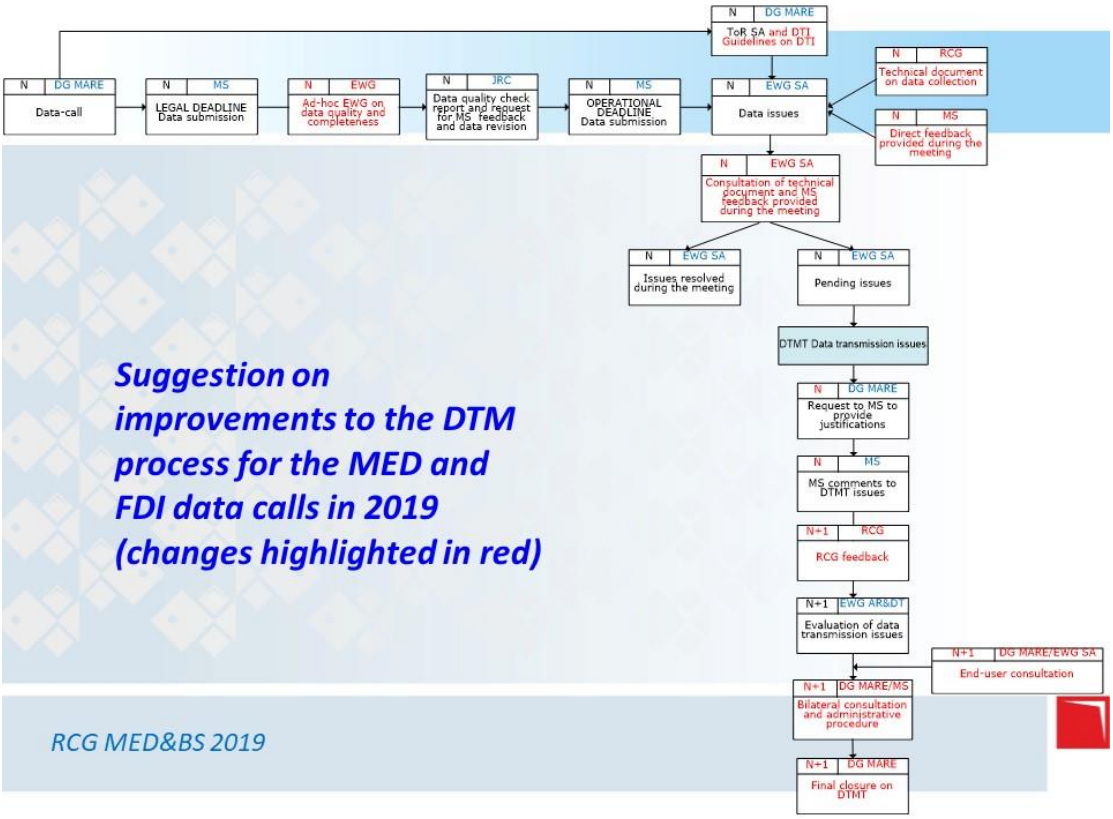
- Opinion on the current DTM process
- Suggestions to improve the data quality checking procedures
- Suggestions to improve the DTM process and procedures
- Suggestions to improve the DTMT structure and content
- Opinion on the use of DTMT for compliance assessment





DTM process in 2018 related to MED and FDI data calls

RCG MED&BS 2019



Suggestion on improvements to the DTM process for the MED and FDI data calls in 2019 (changes highlighted in red)

RCG MED&BS 2019

OUTCOMES - RECOMMENDATION 4

2. Input for DG MARE and STECF on data transmission issues evaluation for 2018

- Subgroup screened the data transmission issues for 2018 and provided an opinion about the categorization of the issues (e.g. Data issue, Non-issue, Historical coverage issue, Coverage issue (i.e. potential compliance issue)).
- The results of the Subgroup assessment of Med&BS data transmission issues in 2018 are provided in the document accompanying this report in the column "RCG Med&BS comments" (Input II of the Report).

Extract DTMT Med & BS 2018_CONFIDENTIAL.xlsx

ASSESSMENT OF DATA TRANSMISSION ISSUES – RCG LEVEL

Out of 51 issues identified by end-users for 2018, 43 issues were assessed, while 8 issues were not considered as they refer to the Fleet economic and Aquaculture data calls. The Subgroup considered that the assessment of economic issues should be directed to PGECON. The result of the screening should be approved by the RCG Med&BS and afterwards distributed to DG MARE and STECF for consultation.

No of data transmission issues in 2018

Issue type	Number of issues
Not an issue	15
Data issue	21
Coverage issue	2
Historical coverage issue	5
Not assessed	8
Total	51

RCG MED&BS 2019

ASSESSMENT OF DATA TRANSMISSION ISSUES – MS LEVEL

MS	Not assessed	Data issue	Not an issue	Historical coverage issue	Coverage issue	Total MS
Bulgaria		1				**1**
Croatia		1	3			**4**
Cyprus	1					**1**
France	1	3	1		1	**6**
Greece	3	1				**4**
Italy		6	10	5	1	**22**
Romania	1					**1**
Slovenia		1				**1**
Spain	2	8	1			**11**
Total RCG	**8**	**21**	**15**	**5**	**2**	**51**

OUTCOMES - RECOMMENDATION 4

3. Input for GFCM on data transmission to GFCM

- In order to avoid possible uncertainties related to use of different datasets in GFCM, the Subgroup concluded that only CPCs should provide data to be used in WGs framework. GFCM should not ask national scientists to provide and work on its own datasets during WGs.
- Summary on subgroup discussion and recommendations for GFCM are provided in Input III of the Report.

RECOMMENDATIONS FOR GFCM SAC

- In order to avoid possible uncertainties related to use of different datasets in GFCM, **data intended for stock assessment should be officially transmitted by the national authorities only and not by scientific experts.** Any use of additional data in support to the stock assessment should be clearly communicated to the national authority before the use of data in the working group and the national authority should authorize the use of this data.
- **The process of data transmission for the purpose of stock assessments should be clarified and formalized** by the GFCM.
- **Data transmission in accordance with the DCRF should not be mandatory in case there is no clear purpose on data use** at the GFCM level in the GFCM work plan (e.g. Task VII.2 - Length data, Task VII.3.1 - Size at first maturity and Task VII.3.2 - Maturity data)

SUMMARY

I. Draft Terms of Reference
II. Data requirements registry format
III. Technical document format
IV. Documents for end-users:
    1. Input for STECF PLEN 19-01 Spring plenary meeting
    2. Input for DG MARE and STECF on data transmission issues evaluation for 2018
    3. Input for GFCM on data transmission to GFCM

FOLLOW-UP ON RECOMMENDATIONS

Follow-up on 2019 recommendations:

- Forward input to end-users – October 2019
- Technical document – end of 2019
- Data requirements registry – end of 2019

Preparation for 2020:

- DTMT Extract (update for 2018 and 2019) – end of 2019
- Preparatory work for input on optimization of FDI and Med&BS data calls (avoid duplication of reporting) – January 2020
- End-users meeting 2020:
  - 28-30 January 2020, GFCM HQ Rome?

Participation of GFCM, DG MARE, STECF and JRC should be ensured.



STECF EWG 19-05
Evaluation of mandatory surveys under the DCF

13-17 May 2019
Brussels

DG MARE, Unit C3

RCG Med & Black Sea, 24-26 September 2019, Malta

Set up of EWG 19-05

Composition: 14 experts, including 4 STECF members

Chair: David Sampson (US)

TORs were agreed at STECF EWG 18-04: a new methodology was used - the Decision Support Tool (DST)

MS,RCGs and end users were requested to fill in 'Stocks' and 'Surveys' databases, needed as background information for the evaluation of surveys using the DST

The final report is published on the STECF website

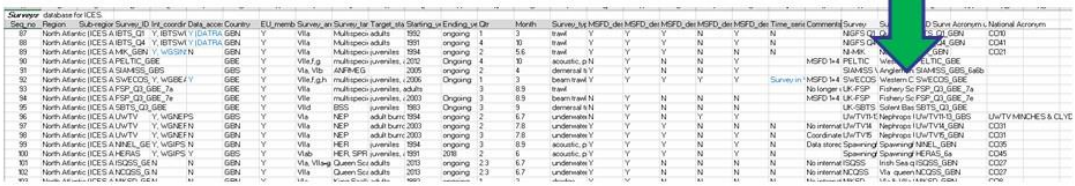
European Commission

'Tools' of EWG 19-05



Stocks database

Surveys database



European Commission

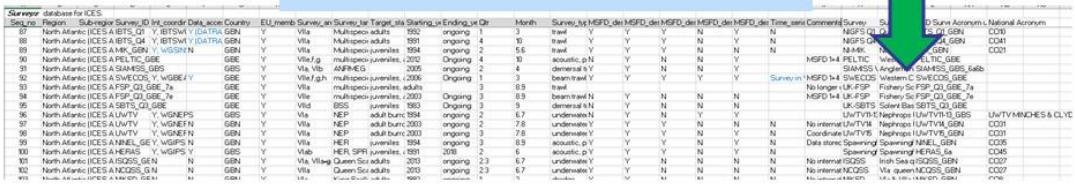
'Tools' of EWG 19-05



Stocks databa

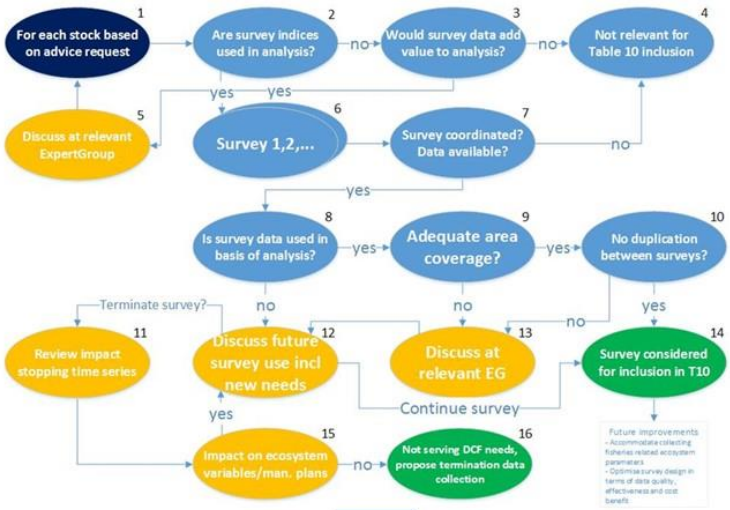
Both databases were quality checked during the EWG

eys database



'Tools' of EWG 19-05

Decision Support Tool (DST) for drawing up the list of mandatory surveys (Article 5.5, EU 2017/1004)



Main outcomes

Surveys proposed for the new list of mandatory surveys (new EU MAP Table 10)

Region / Survey_ID of proposed survey	Current EU MAP Table 10 name or acronym	Comments
Baltic (including Skagerrak and Kattegat)		
BIAS	BIAS	
BITS_Q1 **	BITS Q1	
BITS_Q4	BITS Q4	
CDDS_Q4 **		**Not in current EU MAP Table 10.** Joint Danish/Swedish bottom trawl survey in "Kattegat Cod Survey".
FEHUCS		**Not in current EU MAP Table 10.** "Fehmern Juvenile Cod Survey".
GRAHS	GRAHS	
IBTS_Q1 **	IBTS Q1	
IBTS_Q3 **	IBTS Q3	
NSSS	NSSS	
RHIS_DRU	RHIS	
SPRAS	SPRAS	
North Sea & Eastern Arctic		
ASH	International ecosystem surveys in the Nordic Seas.	
BTS	North Sea beam trawl survey (BTS)	
DYFS	Demersal young fish survey (DYFS)	
FCGS	Flemish Cap groundfish survey (FCGS)	**Change in region.** Included in the current EU MAP Table 10 in the "North Atlantic" region, but allocate here to the "North Sea & Eastern Arctic" due to regional competences of the RCG NSEA.
GGS	Greenland Groundfish survey (GGS)	
IBTS_Q1	International bottom trawl survey (IBTS Q1)	
IBTS_Q3	International bottom trawl survey (IBTS Q3)	
IBTS_Q4	IBTS Q4	**Change in region.** Included in the current EU MAP Table 10 in the "North Atlantic" region, but allocate here to the "North Sea & Eastern Arctic".
IHLS	International herring larvae survey (IHLS)	
NHAS	NHAS	
NSMFEGS	Mackerel egg survey (triennial) (NSMFEGS)	
NSSS	North Sea sandeels survey (NSSS)	
PLATUKA_ESP	3LNO groundfish survey (PLATUKA)	**Change in region.** Included in the current EU MAP Table 10 in the "North Atlantic" region, but allocate to the "North Sea & Eastern Arctic" due to regional competences of the RCG NSEA. See report section *Change to an existing survey – Splitting the NAFO 3LNO Groundfish Survey.*

Proposal for future mandatory list of surveys

- *new surveys added*
- *'out-of-scope' surveys excluded*
- *similar surveys grouped together*

Main outcomes

On duplication:

- in general no overlap
- **4 surveys** associated with one particular stock, needing further investigation

On stock coverage:

- **412 stocks** covered by surveys + assessed
- **430 stocks** covered by surveys & not assessed
- **208 stocks** not covered by surveys

Survey contribution to the MSFD descriptors 1,3,4,6,10

Next steps

The final outcomes will be used in the **STECF EWG 19-12**: Revision of the EU Multiannual Plan for data collection (EU-MAP) after 2020 (16-20 September 2019, Brussels)

Follow-up actions with **end users** on:

- *Assessing possible duplication*
- *Receive quality information on data use from benchmarks*
- *Standardization of survey names (ICES)*

Next steps

July 2019 COM circulated the outcomes to all National Correspondents, allowing for further comments/ clarifications

4 specific requests:

Irish Anglerfish and Megrim Survey (IAMS_IRL)

Nephrops Survey Offshore Portugal NepS

UK request on: SCO-IV-VI-AMISS-Q2, SIAMISS_GBS, ISAS, herring acoustic survey, Peltic Survey, NIGFSQ1 (Northern Irish Groundfish Survey)

SOLEMON and TUNIBAL surveys

Input information for EWG 19-12

- *allocation of surveys to regions, to be discussed holistically for the whole of EU MAP: RCG included*
- *MS specific requests clarified: SOLEMON (GSA 17) and TUNIBAL (GSA 5,6)*

Draft outcome: an updated proposal on the future list of surveys, taking into account EWG 19-05 outcomes, comments received by NCs & the need to clarify regional allocation of surveys to be discussed at STECF Plenary (November 2019)

Questions

What should be the 'fate' of the Stocks and Surveys databases?

What should be the role of RCGs?

How to address better utilisation of survey data, that is currently not used?

Questions?



Thank you

Recreational fisheries in the Mediterranean and Black Sea



Fabio Grati & Manos Koutrakis*

Regional Co-ordination Group meeting for the Mediterranean and Black Sea 2019
Malta

State of play



GFCM Mid-term Strategy (2017-2020)

- GFCM Working Group on RF
- Handbook on RF Data Collection
- Pilot studies



STREAM Project WP5 – SSF and RF (2018-2019)

- D5.1 Availability, quality and existing gaps of transboundary data
- D5.2 Guidelines on the best practice methodologies for sampling



RCG Med&BS Workshop on RF (Ancona, April 2019)

- Preliminary results of Pilot Studies
- Recommendations
- List of species

ICES CIEM WGRFS

ICES WGRFS (A Coruna, June 2019)

- List of species



GFCM Mid-term Strategy (2017-2020)

- GFCM Working Group on RF
- Handbook on RF Data Collection
- Pilot studies

- The GFCM Working group on RF met for the first time in Sept 2017.
- The recent FAO GFCM draft «Handbook for data collection on RF in the Med&BS» provides practical information *http://www.fao.org/gfcm/activities/fisheries/mid-term-strategy/en/*
- Five pilot studies are planned for the period 2019-2020, Lebanon (confirmed), Italy GSA17 (to be confirmed), Tunisia (to be confirmed), Turkey BS (confirmed), and Algeria (to be confirmed) - in such CS the **GFCM Handbook** will be tested and eventually implemented on the basis of the preliminary results

Recreational fisheries in the Mediterranean and Black Sea State of play



STREAM Project WP5 – SSF and RF (2018-2019)

- D5.1 Availability, quality and existing gaps of transboundary data
- D5.2 Guidelines on the best practice methodologies for sampling

MAIN CONCLUSIONS

- Official statistics are missing in many Med&BS countries;
- Necessity to identify common survey methods;
- Types of data needed should be defined by end-user needs to achieve CFP goals;
- A Quality Assurance Framework (QAF) would be required at a national/regional level;
- Regional coordination for data collection is needed to ensure that data at the required spatial resolution, temporal coverage, and quality are provided to support scientific advice and management.

State of play



RCG Med&BS Workshop on RF (Ancona, April 2019)

- Preliminary results of Pilot Studies
- List of species
- Recommendations

- 18 participants, including C. Maravelias and E. Ranshuysen (DG MARE), K. Hyder (Chair ICES WGRFS);
- Preliminary results of five pilot studies presented:
  - Italy (A. Mariani - UNIMAR);
  - Spain (M. Moset – MAPA);
  - Greece (A. Papadopoulos – FRI);
  - Cyprus (N. Michailidis - DFMR);
  - Malta (R. Micallef – DFA).

Recreational fisheries in the Mediterranean and Black Sea

State of play



RCG Med&BS Workshop on RF (Ancona, April 2019)

- Preliminary results of Pilot Studies
- List of species
- Recommendations

Country	Pilot study	Population	Sampling strategy	Data on share catches RF/commercial
Italy	2018	MIPAAFT database	Elicitation Logbook Recall 12-months	Yes
Spain	In progress	License system	Local studies with different methodologies	No (to be provided)
Greece	2017-2019	Telephone survey	Logbook Onsite survey	No (to be provided)
Cyprus	2017-2018	License system + Telephone survey	Recall 12-months	Yes
Malta	2017-2018	License system	Recall 6-months	No (to be provided)

Recreational fisheries in the Mediterranean and Black Sea

State of play



RCG Med&BS Workshop on RF (Ancona, April 2019)

- Preliminary results of Pilot Studies
- List of species
- Recommendations

List of species targeted by RF

Auxis thazard
Auxis rochei
Boops boops
Caranx rhonchus
Chelidonichthys lucerna
Chelon auratus
Chelon labrosus
Conger conger
Coriphaena hippurus
Dentex dentex
Dentex gibossus
Dentex macrophthalmus
Dicentrarchus labrax
Diplodus annularis
Diplodus sargus
Diplodus spp.
Ephinephelus spp
Epinephelus aeneus
Epinephelus costae
Epinephelus marginatus
Euthynnus alleteratus
Gobidae
Katsuwonus pelamis
Lithognathus mormyrus
Liza ramada
Loligo vulgaris
Mugil cephalus
Mugilidae
Mycteroperca rubra
Oblada melanura
Octopus vulgaris
Pagellus acarne
Pagellus bogaraveo
Pagellus erythrinus
Pagrus pagrus
Palinurus elephas
Pomatomus saltatrix
Sarda sarda
Sarpa salpa
Sciaena umbra
Sepioteuthis lessoniana
Scomber colias
Scomber scombrus
Scorpaena notata
Scorpaena porcus
Scorpaena scrofa
Seriola dumerili
Serranus cabrilla
Siganus spp
Serranus cabrilla
Serranus scriba
Sparisoma cretense
Sparus aurata
Sphyraena sphyraena
Spicara flexuosa
Spicara maena
Spondylosoma cantharus
Symphodus rostratus
Thunnus alalunga
Trachinus draco
Trachurus mediterraneus
Trachurus trachurus

62 species

Recreational fisheries in the Mediterranean and Black Sea

State of play



RCG Med&BS Workshop on RF (Ancona, April 2019)

- Preliminary results of Pilot Studies
- List of species
- Recommendations

Main Recommendations

- Member States should collect data on marine RF on a regular basis;
- Need to finalize the pilot studies, assess the outcomes and use them to generate plans for regular data collection;
- Methodology for data collection (sampling strategy) shall be identified and adapted to the specific situation within each MS;
- The methodology should be based on statistically sound principles and include an assessment of quality (e.g. GFCM "handbook"; ICES WGRFS Quality Assessment Toolkit).

ICES WGRFS (A Coruna, June 2019)

- List of species

- One TOR of the last ICES Working Group on Recreational Fishing Surveys focused on list of species to be sampled for RF in European seas. Three sub-groups (Baltic, North Sea and Mediterranean) prepared a species list proposal which will be included in the WGRFS Report (soon available).
- The sub-group for the Med was composed by F. Grati (Italy), J. Baudrier (France), O. Sagué (Spain) and A. Papadopoulos (Greece).
- Based on preliminary results of pilot studies and on a MEDAC document (Ref 292/2017 Rome), a list of seven species has been proposed for the Mediterranean: ***Epinephelus* spp., *Dentex dentex*, *Dicentrarchus labrax*, *Sparus aurata*, *Umbrina cirrosa*, *Sciaena umbra*, *Diplodus sargus*.**

- MS should collect data on marine RF on a regular basis, as official statistics are missing in most Med&BS countries;
- Need to finalize the pilot studies, assess the outcomes and use them to generate plans for regular data collection;
- Survey methods and data to be collected should be identified and adapted to the specific situation of each MS on the basis of end users needs;
- A common framework for sampling methodology is needed to assure that data collected are comparable among MS;
- Regional coordination for data collection is needed to ensure that data at the required spatial resolution, temporal coverage, and quality are provided to support scientific advice and management;
- For the future EU MAP regulation, RCGs have been identified as the most suitable bodies to manage most of RF issues (e.g. selection of species and methods).



DCF data call: data uploading, data handling and data checks

Mannini A., Pinto C., Zanzi A., Carvalho N., Guillen J.

GFCM HQ -Rome 12-14 March 2019

European Commission

DCF data calls

JRC supports the implementation of the EU DCF regulation managing 5 data calls

3 socio-economic data calls:

- Fishing Fleet
- Aquaculture
- Fish Processing Industry

- Mediterranean & Black Sea data call

- Fisheries Dependent Information (FDI) data call

European Commission

Data Calls: general purpose

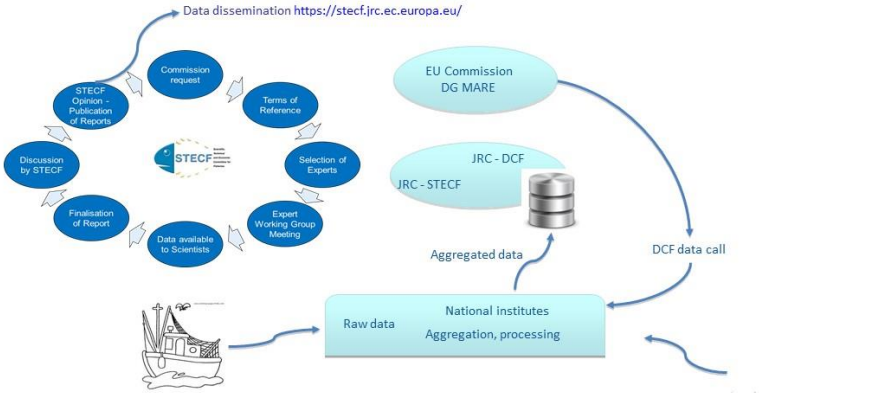
- Calling data mainly *fit for purpose:* STECF EWGs (stock assessment, AER, FDI, etc). ToRs are assigned by DG MARE
- Moreover, data stored in the JRC DBs are provided to other stakeholders according to officially ad-hoc requests (for instance MARE Call of proposals: RECFISH and SPLEMED projects)
- Only data endorsed by STECF plenary and published in the STECF reports and/or in the annexes can be considered public

https://datacollection.jrc.ec.europa.eu/documents/10213/881778/2010-04-27_DCFDataAccessForEndUsers_D04789.pdf/1ac8f9d1-53b8-45c6-bef8-3d1864f6b9ae

European Commission

Data calls & STECF EWGs





European Commission

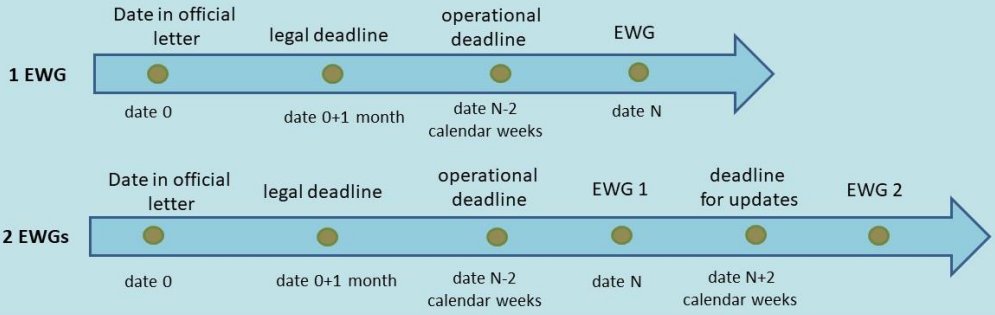
Data quality

Council Regulation (EC) No 2017/1004 of 17 May 2017
Article 14
Data quality control and validation
1. Member States shall be responsible for the quality and completeness of the primary data collected under national work plans, and for the detailed and aggregated data derived therefrom which are transmitted to end-users of scientific data.

European Commission

Data handling

Data handling procedure for STECF Expert Working Group
6 February 2015, DG MARE



European Commission

Data handling

Data-handling procedures for STECF Expert Working Groups EWGs) Working procedures
1.Official Data Call and Legal Deadline:The official data call shall be transmitted to Member States at least one calendar month before the legal deadline for submission of data specified in the data call, but as far in advance of the legal deadline as possible.

2.STECF EWG meeting:The STECF EWG meeting associated with the data call should preferably be convened no earlier than one calendar month following the legal deadline. This is to ensure that sufficient time is available to allow data checks to be undertaken before the EWG takes place.

3.Operational Deadline: In recognition of the fact that, based on past experience, data submitted by Member States in response to an official data call may sometimes contain errors and gaps, an operational deadline of two calendar weeks (two periods of seven consecutive calendar days) before the commencement of the STECF EWG meeting associated to the data call shall be established. Subsequent to the legal deadline and pending the outcome of data checks undertaken by the JRC or the Member States themselves, if necessary, Member States may upload amended or additional data up to the operational deadline.

4.Subsequent to the operational deadline and during the associated STECF EWG meeting, Member States may only provide modifications to data previously uploaded upon request from the JRC or the STECF EWG.

5.Following the closure of the STECF EWG meeting1, the JRC databases shall be considered final and no further uploads will be permitted. At that time, any missing or erroneous data will be noted in the STECF EWG and plenary reports.

6.An official data call may contain requests for data that are mandatory under the provisions of Member States' approved National Programs. In addition, a data call may also request data over and above the provisions specified in the approved National Programs. It is desirable that Member States voluntarily provide such data in order that the ability of the STECF EWG to undertake its work is not compromised.

European Commission

Data checks

- Syntactic checks before and during data uploading step
- JRC assesses data coverage of the aggregate data transmitted by Mss
- JRC implements statistical checks for detecting potential anomalies in the data and reports such anomalies to the data providers and the STECF EWG concerned
- Each STECF EWG assesses coverage and quality of the data in relation to the EWG ToRs
  - In STECF Reports: a chapter outlines the coverage and quality of data
  - Mediterranean EWGs: checks only on data used for stock assessment
- Data transmission issues encountered prior to and during the meetings are reported via the Data Transmission Monitoring (DMT) tool

European Commission

Data Transmission Monitoring tool

Data Transmission Monitoring (DTM) tool

- Purpose: to make all users aware of issues with the data transmitted by Member States in response to official data calls under the DCF
- Any issue raised requires Member States to provide an explanation as to why the issue has arisen
- Issue type: coverage, timeliness, quality
- Severity: high, medium, low
- Implemented as a Liferay portlet (Java)

European Commission

Data Transmission Monitoring tool

Workflow



STECF EWGs report identified issues via the DTM tool

Member States respond via the DTM tool

STECF EWG Evaluation of Work Plan & Data Trasmission failures

MARE ranks and qualifies issues based on the output from the Dedicated STECF EWG and reports back to MSs

European Commission

Data checks

Automated checks prior to and during data uploading phase

- **Data Validation Tool**
  - Syntactic checks: acceptable codes, value types and ranges, coherence among columns
  - Checks for duplicated rows in the file
  - Online tool for MED&BS and FDI data calls
  - Embedded in the fleet templates for the Economics data calls

- **Uploading facility**
  - The same syntactic checks are performed before storing data in database
  - Unsatisfactory submissions are relayed back to MS along with an error report
  - Fleet Economic data call
    - *Capacity template required as first step to avoid 'random' fleet segments*

- **Liferay portlets & Postgres DB**

European Commission

Data checks

Checks after the data are stored in the DCF database

- Consistency between the data submitted and the specification of the data call
- Consistency between the data submitted in the different tables of the data call
- Consistency with other data sources

Communication with Member States

- Interactive dashboards in Tableau are made available online (FDI and Economic data calls)
- Information sent by email to National Correspondents (MED&BS data call)

Re-submissions of revised data are permitted up to the operational deadline

European Commission

Main data checks
Economic data calls

- Syntactic checks (including that some values are >0, such as total value of assets)
- If economic data is reported for a segment with existing capacity
- If a variable is reported, then other variables need to be reported
- (e.g. when income is reported, costs are required)
- National total equals to the sum of the segments
- Checks for outliers
- Consistency of the data reported at different levels (e.g. segment, national) over time and countries. For instance, days at sea cannot be > than 365 days, evolution of average fuel prices checked against reported fuel consumption and costs



Main data checks
Med & Black Sea data call

- Percentage data not available ("-1") over total records by vessel length, gear, mesh size range and fishery
- Percentage of records by quarter
- Comparing landings records and abundance by age classes (Mean weight)
- Records for which total landings are zero or empty but the total number of landed individuals in age or length is greater than zero
- Comparing discards records and abundance by age classes (Mean weight)
- Records for which total discards are zero or empty but the total number of discarded individuals by age or length is grater than zero



Main data checks
Med & Black Sea data call

- Sum Of Product (SOP) should be equal to total landings or total discards reported
  - SOP is the sum of multiplications between number at age and the corresponding mean weight at age. Looking for outliers for which the difference between the SOP and the total landings or discards is greater than +15% or less than –15%
- Effort
  - Checking trend of nominal effort by area and gear (looking for outliers)
- Total Landing in weight
  - Checking trend of total landings by area (looking for outliers)



Main data checks
Med & Black Sea data call

MEDITS Survey

- Time series (years available and number of hauls carried out by year)
- Coherence in the number of hauls among the three main files TA (haul), TB (catch) and TC (biology of target species)
  - Number of hauls reported in TA and TB should be the same; in TC it could be equal (usually) or less (no target species caught) to the number in TA
- Plotting survey period to check if it is in agreement with what stated in NP, EUMAP and survey handbook
- Number of species reported in TB and TC

MEDIAS or other surveys (i.e. Black Sea surveys)

- Time series available
- Survey period
- Looking for outliers in mean weight (more or less than 30% of the mean value computed for the whole series) data by species



Main data checks
FDI data call

- Average length vessels compatibility with the vessel length category (table J)
- Identification of non-valid combination of sub-region and EEZ indicator codes
- Comparison of any given metric over the time series
- Comparison of EU average prices per species and year with the average prices calculated per country
- Comparison of number of vessels from table J and table G: TOTVES>0 in table G and TOTVES in table J is non present or NK
- Comparison between landings and effort: TOTWGHTLANDG>0 in table A and effort (TOTFISHDAYS and TOTSEADAYS) not present or NK in table G



Main data checks
FDI data call

- Comparison between TOTWGHTLANDG and TOTVALLANDG (table A): TOTWGHTLANDG>=0 and TOTVALLANDG=0
- For each country, all DOMAIN DISCARDS names found in tables C and D should also be present in table
- For each country, all DOMAIN LANDINGS names found in tables E and F should also be present in table A
- Where DOMAIN_DISCARDS names match between tables C and D and table A, the sum of TOTWGHTLANDG values in table A for the given domain name is checked against the TOTWGHTLANDG value in tables C and D



Main data checks
FDI data call

- Where DOMAIN_LANDINGS names match between tables E and F and table A, the sum of TOTWGHTLANDG values in table A for the given domain name is checked against the TOTWGHTLANDG value in tables E and F
- Visual assessment of the correct allocation of the c-square coordinates for effort and landings (tables H & I)



Coverage & comparison with other sources

Fishing Fleet data call

- Coverage is almost complete
- Missing data occurs mainly due to confidentiality issues
  - Very few vessels or companies in a fleet segment that cannot be clustered in another segment (e.g. some distant-water vessels)
- Sporadic consistency checks with Eurostat and FAO production data and the EU Fleet register



Coverage & comparison with other sources

Aquaculture data call

- Reporting of freshwater aquaculture is optional
  - Missing Germany, Lithuania, Poland, Slovenia and landlocked countries freshwater data
- The 2018 data call was requested under the new EUMAP, production thresholds have been inserted (i.e. if national production is small, then there is no need to report)
  - Poland, Cyprus and Estonia are not currently reporting
- Not reported production weight and value data are taken from FAO (sometimes Eurostat)
- Reported production data are checked against Eurostat data in the national chapters, and significant divergences between both sources justified



Coverage & comparison with other sources

Fish Processing Industry data call

- Under the EUMAP will become voluntary (most MSs are planning to submit data)
- Missing data will be filled with Eurostat data (Structural Business Statistics - SBS)
  - SBS data includes most economic performance indicators collected under the DCF and EUMAP (with the exception of capital costs)
  - SBS data is not available for primary sectors (i.e. fisheries & aquaculture)
- Consistency between the DCF and Eurostat data was checked and reported by the 2017 STECF EWG on fish processing



Coverage & comparison with other sources

Fisheries Dependent Information data call

- Poor coverage for unwanted catches (discards in the previous call)
- Consistency checks with Eurostat data

Mediterranean & Black Sea data call

- Missing and or wrong data are not always fixed
- Consistency checks with data provided to the Economic Fishing Fleet data call (namely Landings in weight, fishing days, etc)

European Commission

THANK YOU

European Commission

Summary report of the MEDITS Coordination meeting (Sete, France 16-17 April 2019)

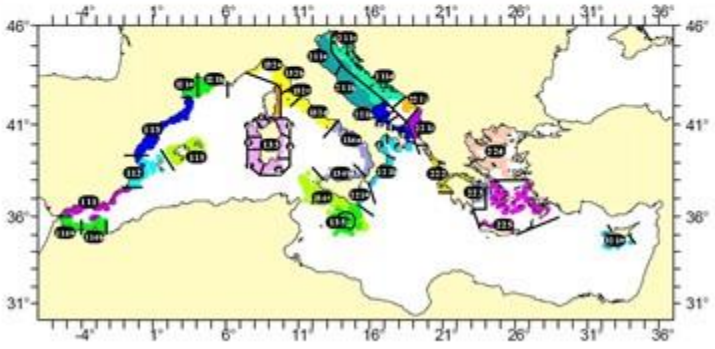
RCG MED & BS
Malta, 24-26/9/2019

MEDITS surveys

Main goal: Monitor demersal resources of the Mediterranean

- ✓ Running since 1994
- ✓ About 1300 survey stations
- ✓ Eleven countries involved

Coverage: All trawlable areas over the shelf and upper slope (10-800m)



Meeting Agenda



MEDITS

Review of 2018 surveys

Relevant presentations and reports revealed that:

+ All MEDITS surveys were accomplished on time without any major issues
+ Demersal surveys in the Black Sea were also successfully realized

Not any major issues are expected for 2019

MEDITS

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MEDITS RCG MED&BS 5/ 7

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MEDITS RCG MED&BS 5/ 7

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- ✓ The potential of a second survey was discussed (added value, practical problems)

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- ✓ A scientific group will be established for the standardization of macrobenthos processing
- ✓ The potential of a second survey was discussed (added value, practical problems)
- ✓ It was agreed that the MEDITS SharePoint will be held in ICES web-site

MEDITS RCG MED&BS 5/ 7

Other relevant activities

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MEDITS RCG MED&BS 6/ 7

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- ✓ The MEDITS group will continue to provide technical support to non EU MS for the accomplishment of MEDITS-compatible surveys in non-European GSAs, further to FAO/GFCM initiatives
- ✓ MEDITS data will support GFCM activities related to the management of Vulnerable Marine Ecosystems (VME)

MEDITS RCG MED&BS 6/ 7

Next coordination meeting will be held in spring 2020 *(exact date and venue has to be arranged)*



Thanks for your attention!

RCG Med&BS

24 – 26 September, 2019 – Saint Paul's Bay, Malta

Changes proposed by the RCGMed&BS to the EUMAP

María González

(IEO Málaga, Spain)

The Regional Coordination Group for the Mediterranean and Black Sea met in Madrid (Spain) in June 11-12 2019, chaired by the representative of the Spanish NC, María Moset.

The RCG was hosted by the Spanish General Secretary for Fisheries at its headquarters.

The meeting was attended by 22 colleagues from the European Union countries involved in the DCMAP in the Mediterranean Sea (France, Croatia, Italy, Greece, Slovenia, Malta and Spain) and in the Black Sea (Bulgaria and Romania), and the representatives of the Commission and the GFCM.



The main goal of the meeting was the participation of the RCGMed&BS in the consultation process leaded by DGMARE to design the new EU multiannual programme.

Steps of the consultation process:

DGMARE started the consultation process circulating the document in October 2018

→

Questionnaire with a number of questions grouped in biological and socio economic issues was launched in December of 2018. End users and NC

↓

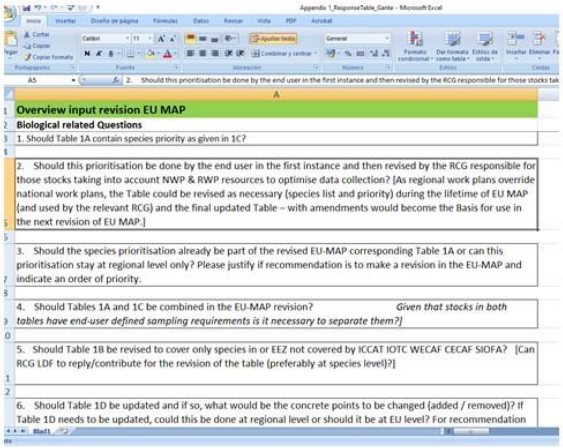
A first approach of RCGS was given in the form of intersessional group that met in Gent in May, 2019

←

The subsequent RCG meetings reviewed the information received, and proposed what is considered according to the specificities of each marine region. The RCGMed&BS met in Madrid in June, 2019

The main agreements reached in the meeting in Madrid were:

- The RCGMed&BS don´t endorse the conclusions of the intersessional meeting that met in Gent in May 2019
- No comments on the text of the Decission were made
- No capital modification should be made to the current framework. The group focused in specific comments based in the questionnaire circulated by DGMARE



A
Overview input revision EU MAP
Biological related Questions
1. Should Table 1A contain species priority as given in 1C?
2. Should this prioritisation be done by the end user in the first instance and then revised by the RCG responsible for those stocks taking into account NWP & RWP resources to optimise data collection? [As regional work plans override national work plans, the Table could be revised as necessary (species list and priority) during the lifetime of EU MAP (and used by the relevant RCG) and the final updated Table – with amendments would become the Basis for use in the next revision of EU MAP.]
3. Should the species prioritisation already be part of the revised EU-MAP corresponding Table 1A or can this prioritisation stay at regional level only? Please justify if recommendation is to make a revision in the EU-MAP and indicate an order of priority.
4. Should Tables 1A and 1C be combined in the EU-MAP revision? *Given that stocks in both tables have end-user defined sampling requirements is it necessary to separate them?]*
5. Should Table 1B be revised to cover only species in or EEZ not covered by ICCAT IOTC WECAF CECAF SIOFA? [Can RCG LDF to reply/contribute for the revision of the table (preferably at species level)?]
6. Should Table 1D be updated and if so, what would be the concrete points to be changed (added / removed)? If Table 1D needs to be updated, could this be done at regional level or should it be at EU level? For recommendation

The questionnaire was divided in **Biological** related questions and **Socio-economic** related questions

Review of the DGMARE questionnaire. Biological related questions

1. Should Table 1A contain species priority as given in 1C?
2. Should this priorization be done by the end user in the first instance and then revised by the RCG responsible for those stocks taking into account NWP & RWP resources to optimize data collection?
3. Should the species priorization already be part of the revised EU-MAP corresponding Table 1A or can this priorization stay at regional level only?

The priorization is no needed, since table 1A should be limited to priority stocks for which biological data is deemed as mandatory. For MED&BS, table could contain GFCM group 1 species, ICCAT species, species under quota and those species under sub regional management plans.

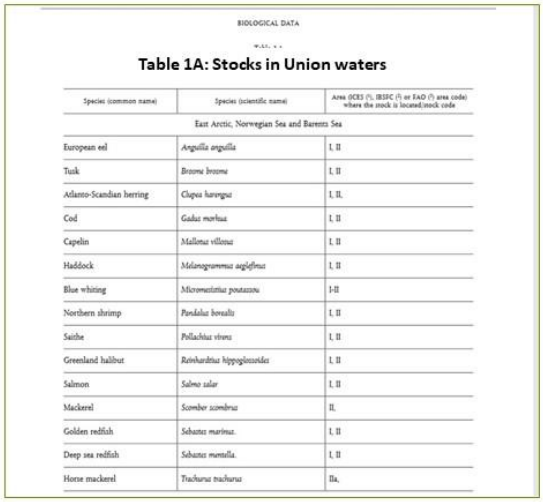
The group added some points:

- In the GFCM group 1 species thresholds should be applied as usual (total annual landing less than 200 T or less than 10% of the tot landing of EU countries). No thresholds shall apply to large pelagics, catadromous species or red coral
- The list of species may be subject to changes from year to year based on main end users requierements. Legal text flexible
- Biological parameters and temporal resolution shall be coordinated at marine region level and will be fixed by RCGMed&BS

Review of the DGMARE questionnaire. Biological related questions

4. Should Tables 1A and 1C be combined in the EU-MAP revision?

The tables should be combined, since all biological variables to be collected are the same in both tables, it does not make sense to have them in separated tables



BIOLOGICAL DATA

Table 1A: Stocks in Union waters

Species (common name)	Species (scientific name)	Area (ICES (*), IBSFC (†) or FAO (‡) area code) where the stock is located/stock code
East Arctic, Norwegian Sea and Barents Sea		
European eel	*Anguilla anguilla*	I, II
Tusk	*Brosme brosme*	I, II
Atlanto-Scandian herring	*Clupea harengus*	I, II,
Cod	*Gadus morhua*	I, II
Capelin	*Mallotus villosus*	I, II
Haddock	*Melanogrammus aeglefinus*	I, II
Blue whiting	*Micromesistius poutassou*	I-II
Northern shrimp	*Pandalus borealis*	I, II
Saithe	*Pollachius virens*	I, II
Greenland halibut	*Reinhardtius hippoglossoides*	I, II
Salmon	*Salmo salar*	I, II
Mackerel	*Scomber scombrus*	II,
Golden redfish	*Sebastes marinus.*	I, II
Deep sea redfish	*Sebastes mentella.*	I, II
Horse mackerel	*Trachurus trachurus*	IIa,



1.8.2016 EN Official Journal of the European Union L 207/133

BIOLOGICAL DATA

Table 1C: Stocks in marine regions under fisheries managements organizations

IATTC (Inter-American Tropical Tuna Commission)

SPECIES When designing sampling plans aiming at collecting biological information as laid down in Chapter III of this Annex, stock boundaries, as fixed by the competent RFMOs or regional fisheries organisations (RFOs), shall be taken into account and appropriate sampling effort shall be allocated to each stock.				Frequency of collection of biological variables
Scientific name	Common name	Geographical Area	Priority	
Thunnus albacares	Yellowfin tuna	East Pacific Ocean	High	The data collection is annual and the updating/processing of the data must be done timely to fit the schedule of the stock assessments.
Thunnus obesus	Bigeye tuna	East Pacific Ocean	High	
Katsuwonus pelamis	Skipjack tuna	East Pacific Ocean	High	
Thunnus alalunga	Albacore tuna	East Pacific Ocean	High	
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 (The International Commission for the Conservation of Atlantic Tunas)

SPECIES When designing sampling plans aiming at collecting biological information as laid down in Chapter III	Frequency of collection

Review of the DGMARE questionnaire. Biological related questions

5. Should Table 1B be revised to cover only species in outermost regions of the Union not covered by ICCAT IOTC WECAF CECAF SIOFA? [Can RCG LDF to reply/contribute for the revision of the table (preferably at species level)?]

The table 1B should cover only species not covered by ICCAT and other organizations

BIOLOGICAL DATA

Table 1B

Table 1B: Stocks in outermost regions of the Union

Stocks of outermost regions of the Union

Species (common name)	Species (scientific name)
French Guyana	
Red snapper	*Lutjanus purpureus*
Prawns	*Farfantepenaeus subtilis*
Acoupa weakfish	*Cynoscion acoupa*
Smalltooth weakfish	*Cynoscion steindachneri*
Green weakfish	*Cynoscion virescens*
Sea catfishes	*Ariidae*
Tripletail	*Lobotes surinamensis*
Torroto grunt	*Genyatremus luteus*
Snooks	*Centropomus spp.*

L 207/132 EN Official Journal of the European Union 1.8.2016

Species (common name)	Species (scientific name)

Review of the DGMARE questionnaire. Biological related questions

6. Should Table 1D be updated and if so, what would be the concrete points to be changed (added / removed)? If Table 1D needs to be updated, could this be done at regional level or should it be at EU level? For recommendation of revision at EU level, please justify your reply.

Proposal: Replace the Table 1D with the list of regulations governing protection programs

BIOLOGICAL DATA

Table 1D: Species to be monitored under protection programmes in the Union or under international obligations

Common name	Scientific name	Region/RFMO	Legal framework
Bony fishes	Teleostei		
Sturgeons	*Acipenser spp.*	Mediterranean Sea and Black Sea; Baltic Sea; OSPAR II, IV	Annex II of the Barcelona Convention (1), Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol. OSPAR (2); Helcom (3)
Smoothheads (Slickheads)	*Alepocephalidae*	All regions	Relevant for deep sea fisheries (4)
Baird's smoothhead	*Alepocephalus Bairdii*	All regions	Relevant for deep sea fisheries
Risso's smoothhead	*Alepocephalus rostratus*	All regions	Relevant for deep sea fisheries
Pontic shad	*Alosa immaculata*	Black Sea	Annex IV of the Black Sea Biodiversity and Landscape Conservation Protocol
Allis shad	*Alosa alosa*	OSPAR II, III, IV	OSPAR
Common Whitefish/ houting	*Coregonus lavaretus*	OSPAR II	OSPAR
Cod	*Gadus morhua*	OSPAR II, III; Baltic Sea	OSPAR; Helcom

Review of the DGMARE questionnaire. Biological related questions

7. What variable(s) can be included in the future EU-MAP to achieve the goal of estimating the level of fishing and the impact of fishing activities on marine biological resources and on marine ecosystems? Should this priorization be done by the end user in the first instance and then revised by the RCG responsible for those stocks taking into account NWP & RWP resources to optimize data collection?
10. Should the pilot study to evaluate the impact of recreational fisheries against commercial fisheries be converted into regular data collection at EU level?

Too early to draw conclusions from all the ongoing projects

Review of the DGMARE questionnaire. Biological related questions

8. Should diadromous species be removed from Table 1A and should Table 1E be revised to include marine Union waters?

It would be better to keep table 1E and remove the species from 1A.

Table 1E

Table 1E: Freshwaters Anadromous and Catadromous species

Species (common name)	Species (Scientific name)	Non-marine areas where the stock is located/stock code
European eel	*Anguilla anguilla*	Eel management units as defined in accordance with Council Regulation (EC) No 1100/2007 (1)
Salmon	*Salmo salar*	All areas of natural distribution
Sea trout	*Salmo trutta*	All inland waters that exit in the Baltic Sea

(1) Council Regulation (EC) No 1100/2007 of 18 September 2007 establishing measures for the recovery of the stock of European eel (OJ L 248, 22.9.2007, p. 17).

Review of the DGMARE questionnaire. Biological related questions

9. Should Table 3 be a subset of Table 1 (for instance as a new Table 1F?), in order to group all species list together?

Table 3 should not be a subset of Table 1, and we agreed to keep Table 3. Data collected for recreational differs from the commercial

Table 3

Table 3: Species to be collected for recreational fisheries

	Area	Species
1	Baltic Sea (ICES Subdivisions 22-32	Salmon, eels and seatrout (including in fresh water) 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 elasmo-branchs
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), elasmobranchs and highly migratory ICCAT species.
6	Black Sea	Eels (including in fresh water), elasmobranchs and highly migratory ICCAT species

Review of the DGMARE questionnaire. Biological related questions

11. Does Table 2 meet current needs or are there some groupings missing (i.e. currently no code for glass eel fishing (Level 4))?

Table 2 meets current needs.
Proposal: no keep length classes here (they are included in 5B).

Table 2

Table 2: Fishing activity (metier) by region

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	LOA classes (m) (d)					
Activity	Gear classes	Gear groups	Gear type	Target assemblage (a)	Mesh size and other selective devices	< 10	10- < 12	12- < 18	18- < 24	24- < 40	40 & +
Fishing activity	Dredges	Dredges	Boat dredge [DRB]	Anadromous species (ANA) Catadromous species (CAT) Cephalopods (CEP) Crustaceans (CRU)	(b)						
			Mechanised/ Suction dredge [HMD]		(b)						
	Trawls	Bottom trawls	Bottom otter trawl [OTB]	Demersal species (DEF) Deep-Water species (DWS) Finfish (FIF) Freshwater species (no code) Miscellaneous (MIS) Mixed Cephalopod and Demersal (MCF) Mixed Crustaceans and Demersal (MCD) Mixed Deep-water species and Demersal (MDD)	(b)						
			Multi-rig otter trawl [OTT]		(b)						
			Bottom pair trawl [PTB]		(b)						
			Beam trawl [TBB]		(b)						
		Pelagic trawls	Midwater otter trawl [OTM]	Mixed Pelagic and Demersal (MPD) Molluscs (MOL)	(b)						
			Midwater pair trawl [PTM]	Large Pelagic fish (LPF) Small Pelagic fish (SPF) Large Pelagic fish (LPF) and Small Pelagic fish (SPF)	(b)						

Review of the DGMARE questionnaire. Biological related questions

12. In Table 4, should any of the variables be revised and if so, which ones?

Proposal: To revise missing fields and check the table with Control Regulation

Table 4

Table 4: Fishing activity variables

	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 (*)	Number/metres

Review of the DGMARE questionnaire. Biological related questions

13. Will introducing small scale fisheries (SSF) as a separate grouping affect the fleet segmentation in Table 5B fleet economic data?

It is no needed to modify 5B.

FLEET ECONOMIC DATA

Table 5B

Table 5B: Fleet segmentation

Active Vessels		Length classes (LOA) (1)					
		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
Using 'Active' gears	Beam trawlers						
	Demersal trawlers and/or demersal seiners						
	Pelagic trawlers						
	Purse seiners						
	Dredgers						
	Vessel using other active gears						
	Vessels using Polyvalent 'active' gears only						

Review of the DGMARE questionnaire. Biological related questions

14. Is the current stratification in Table 5C suitable for use for both biological and economic data aggregation?

In general the stratification is suitable for biological and economic data, but the strata "Supra region" should be used only for economic data.

Table 5C: Geographical stratification by Region

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Sub-region/Fishing ground	Region	Supra region
I	II	III
Cluster of spatial units on level 3 as defined in Table 3 (ICES/CECAF Division)	Southern Western waters (ICES zones VIII, IX and X (waters around Azores), 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 Table 3 (GSA)	Mediterranean Sea (Maritime Waters of the Mediterranean to the east of line 5° 36′ West), 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 Union vessels and managed by RFMOs to which the European Union is contracting party or observer (e.g. ICCAT, IOTC, CECAF etc.)	Other regions.

Review of the DGMARE questionnaire. Biological related questions

15. Given that assessment data is usually given at the stock level, what is the most appropriate level for reporting biological data collection in the national work plan that the RCGs require?

In MED and BS, most of data regarding small pelagic and demersal are reported at management unit level (GSA), large pelagic species data are reported at regional level. This matches with the END USER needs.

16. What are the concrete points of revision for Table 10?

The STEFC EWG already discussed this issue and it was agreed a list of surveys.

Table 10: Research surveys at sea

Name of the survey	Acronym	Area	Period	Main targeted species
Baltic Sea				
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	3rd Quarter	Herring

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Name of the survey	Acronym	Area	Period	Main targeted species
Sprat Acoustic Survey	SPRAS	IIId	May	Sprat and herring
Rügen Herring Larvae Survey	RHLS	IIId	March-June	Herring
North Sea and Eastern Arctic (ICES areas I and II)				
International Bottom Trawl Survey	IBTS Q1 IBTS Q3	IIIa, IV	1st and 3rd Quarter	Haddock, Cod, Saithe, Herring, Sprat, Whiting, Mackerel, Norway pout

Review of the DGMARE questionnaire

Socio-economic related questions

We agreed to incorporate the comments made by the PGECON and the outcomes of SECFISH project once finalised

A	
Overview input revision EU MAP RCG MED AND BS, MADRID 11-12 JUNE 2019	
Socio-economic data RELATED QUESTIONS	**Comment/Input sub-group**
1. Should the any definitions be clarified in the future EU-MAP (i.e. population for economic data collection for the fleet, for the fish processing etc) or can these clarifications be done in PGECON recommendations and methodologies? For action at EU level, please justify.	SECFISH project outcomes to be incorporated once finalised.
2. Should the Fishing fleet segmentation in Table 5B be revised? What are the concrete points for revision (to be added / removed)?	No need to modify 5B.
3. Should the segmentation on aquaculture and processing, currently included in the Guidance documents, be included in the revised EU-MAP? What segmentation should apply?	SECFISH project dealing with this issues also. Inputs to be reviewed,as well as PGECON. Segmentation for aquaculture already included.
4. Does the frequency for the social data collection appear appropriate (three years or more)?	Yes, it does
5. How should the data collection on social variables indicated in Table 6 and Table 10 be presented in EU-MAP (instead of pilot study)?	RCG MED&BS suggets combine social variables from both tables.
6. Should the threshold on the social and economic data on aquaculture be kept or should it be revised?	PGECON discussed this issue. To review its discussions.
7. Should the reference on Guidance documents on Definitions / Methodologies / Quality be integrated in the revised EU-MAP?[Currently there is no operational guidance on data validation and quality reporting except for the document on Quality of socio-economic variables described in EU-MAP. PGECON should discuss the applicability of this document and possibilities to further improve the quality assurance framework for economic and transversal data, taking into account the Guidance document on Methodology of socio economic variables described in EU MAP 2018 consolidated and the Handbook on statistical procedures which will be available in 2019.]	This has been addressed by PGECON. To review its conclusions.

CONCLUSIONS AND RECOMENDATIONS FROM RCGMed&BS

RCG concluded that is not prudent to introduce major changes to the current tables. It is considered that more time is needed to process the current pilot studies since some of them are in progress, and time should be granted to the MMSS to produce conclusive results. The evaluation of pilot studies implemented in the period 2017-2019 shall most probably take place in November 2020 at the STECF EWG for Annual Work Plans evaluation.

THANK YOU FOR YOU ATTENTION!

Table 1A: Stocks in Union waters

BIOLOGICAL DATA

Table 1A

Stocks in Union waters

Species (common name)	Species (scientific name)	Area (ICES [1], IBSFC [2] or FAO [3] area code) where the stock is located/stock code
East Arctic, Norwegian Sea and Barents Sea		
European eel	*Anguilla anguilla*	I, II
Tusk	*Brosme brosme*	I, II
Atlanto-Scandian herring	*Clupea harengus*	I, II,
Cod	*Gadus morhua*	I, II
Capelin	*Mallotus villosus*	I, II
Haddock	*Melanogrammus aeglefinus*	I, II
Blue whiting	*Micromesistius poutassou*	I-II
Northern shrimp	*Pandalus borealis*	I, II
Saithe	*Pollachius virens*	I, II
Greenland halibut	*Reinhardtius hippoglossoides*	I, II
Salmon	*Salmo salar*	I, II
Mackerel	*Scomber scombrus*	II,
Golden redfish	*Sebastes marinus.*	I, II
Deep sea redfish	*Sebastes mentella.*	I, II
Horse mackerel	*Trachurus trachurus*	IIa,

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

The 2019 SC meeting and the Proposals to the RCG

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

- The MED&BS RDB Steering Committee (SC) met in Rome during 28-30 January 2019 to discuss the development of the Regional Database (RDB) for the Mediterranean and Black Sea (MED&BS) Region

- The SC had been established by the MED-BS Regional Coordination Group (RCG) during the 2018 Annual Meeting, following the Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the *"establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy"*

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

The decisions were largely based on

a) the obligations derived from the aforementioned EU regulation,

b) the input requested by the COM from the DCF National Correspondents of the MS to articulate their preference on the RDB host and provide the reasons for their preferred choice, and

c) the questionnaire circulated by the SC to the MS regarding their preferences and reservations on the RDB scope and data types,

d) The grant STREAM "STrengthening REgional cooperation in the Area of fisheries biological data collection in the Mediterranean and Black Sea" funded under the EU Call for Proposals MARE/2016/22, provided some insight on the possible solutions related to the storage, processing and analysis of the RDB data taking into account the current situation, ongoing studies and developments

e) the 1st Steering Committee Meeting for the Mediterranean and Black Sea Regional Database (Med&BS RDB) held in 2012

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

The Article 9 of the Regulation (EU) 2017/1004 (recast of the Council Regulation (EC) No 199/2008) establishes that

- "Regional coordination groups shall aim at developing and implementing **procedures, methods, quality assurance and quality control** for collecting and processing data with a view to enabling the reliability of scientific advice to be further improved.

- For that purpose, regional coordination groups shall aim to develop and implement **regional databases**".

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Within this context, the development of the Mediterranean and Black Sea Regional Database (Med&BS-RDB) has the following main aims:

- to ensure that data can be made available for the activities of the Regional Coordination Group for the Mediterranean and Black Sea (**RCG Med&BS**);
- to facilitate the dissemination of data to **end users** of scientific data and other interested parties;
- to facilitate the production of **standardised data products and reports**;
- to implement **common procedures** and methods on the collection and processing of data with improved quality.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

The main decisions of the SC are the following:

GFCM was selected as the preferred host of the RDB, but distinct from the current GFCM database

- the RDB should contain, as a first step, detailed biological and aggregated transversal data (i.e. landings and effort)
- a data policy document is proposed, dealing with data confidentiality and data ownership issues.
- The main functionalities include the estimations required for the various data calls, as well as further analyses that will be proposed by the MS
- existing development initiatives (like RDBES in ICES) needs to be incorporated in the new RDB
- the development will be undertaken by a technical committee proposed by the MS, where also GFCM will participate
- regarding cost for development and maintenance, the issue can be discussed at the RCG Mediterranean and Black Seas meeting in September 2019

This proposal needs to be considered and agreed by the National Correspondents (NC) and by the RCG Med&BS during 2019.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Proposed functionalities for the RDB:

- ***Raising procedures*** required for the data calls, adapting the methodology currently being developed for the ICES RDBES
- ***Data quality*** checks, automatized data quality and coverage reports
- ***Reporting*** facilities, e.g. automatic completion of Annual Reports tables and standard formats required by end-users
- ***Optimization*** of regional and national sampling programmes and cost efficient data collection, and implementation of data quality checks following the outcomes of the STREAM project.
- ***Georeferenced*** presentation of data

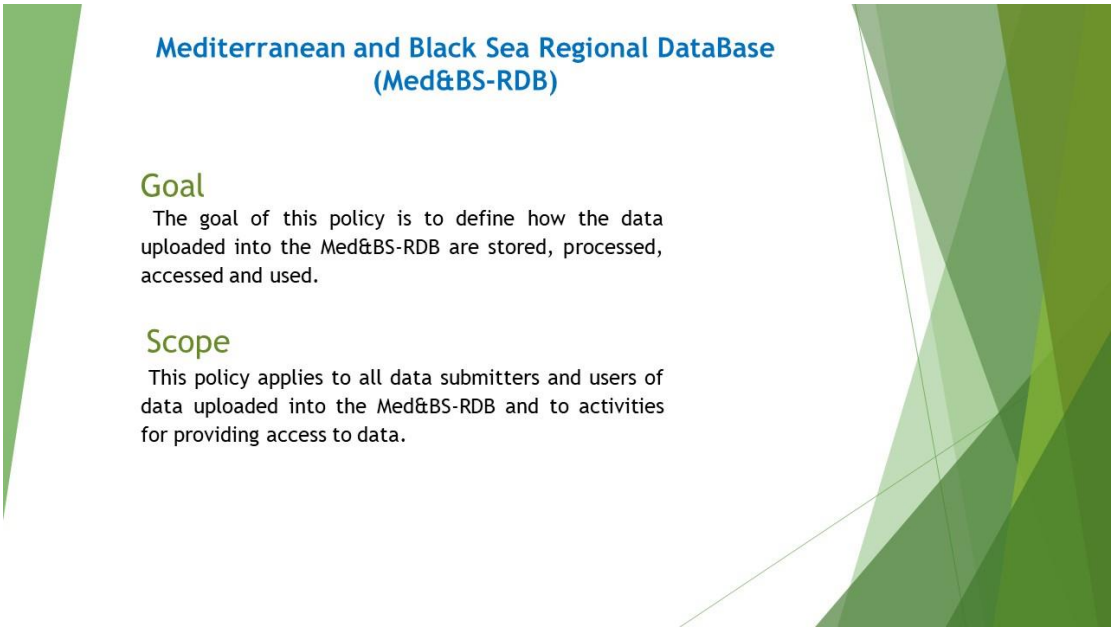
Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Additional potential functionalities for the RDB:

- GIS- based Visualization
- Spatial data, inventory (i.e. Geonetwork, Geoserver)
- Integrate existing open source packages (eg MCDA- multi-criteria decision analysis to extract fishing footprints and estimate fishing pressure)
- Combination of Biotic and Abiotic factors
- Input /Output to Marine Strategy Framework Directive (MSFD)
- Parametric tables (Fleet, LW, ALK, Growth parameters…)
- Legislation
- Historical fisheries statistics data (analysis & presentation of fishing fleet, production, employment)
- Migrant species

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Proposal for a **data policy document** dealing with
Data confidentiality and data ownership issues.



Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Goal

The goal of this policy is to define how the data uploaded into the Med&BS-RDB are stored, processed, accessed and used.

Scope

This policy applies to all data submitters and users of data uploaded into the Med&BS-RDB and to activities for providing access to data.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Data

Data types	Required level of aggregation
Biological data from commercial fisheries	Detailed data in RDBES/ SDEF format
Landings data	Aggregated by species/fishing activity/vessel length/year/month/ (GSA and/or GFCM statistical rectangles) (optional as detailed data)
Effort data	Aggregated by fishing activity/vessel length/year/month/ (GSA and/or GFCM statistical rectangles) (optional as detailed data)
Value data	Aggregated by species/fishing activity/vessel length/year/month/ (GSA and/or GFCM statistical rectangles) (optional as detailed data)

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Data

Possible additional data types	Required level of aggregation
Fleet socioeconomic data	To be defined
Survey data (MEDITS-MEDIAS-SOLEMON-PTSBS-BTSBS)	Standard formats defined by survey coordination groups
Recreational data	To be defined
PETS data	To be defined
Trophic ecology data	To be decided after the pilot phase for ensuring compatibility across the MS

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Detailed and Aggregated data

According to the definitions in this Data Policy, based on the EU Regulation 2017/1004, landing (CL) and effort data (CE) are considered aggregated data, and sample data (CS) are considered detailed data.

The sample data (CS) will have to be aggregated to both month and GSA to be considered aggregated.

Showing data in public reports

General Rule: Sample data (CS), landing data (CL) and effort data (CE) can always be shown when data are disaggregated at the following level:

Year	Quarter	Species	Metier level 4-6	Area (GSA or rectangle)

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Data ownership

The national data in Med&BS-RDB is owned by the individual MS.

The focal point in each EU MS is the National Correspondent.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Access rights [1]

- The access to Med&BS-RDB data is restricted to persons with a user name and a password, and is **role-based**.
- Each role defines the types and the aggregation level of the data to be accessed
- The "host" will receive by the NCs the lists of scientists in the country and the role(s) assigned to their profiles
- The list should be updated at least annually.
- NCs or the person delegate by the NC (alternate) will have the possibility to manage all national data (upload, read/download, process, delete).

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Access rights [2]

- The chairs of the RCG Med&BS and the SC may also define a list of scientists with permission to read/download detailed and aggregated data from all MS, to be used for the purpose of RCG Med&BS work activities (without permission to use or publish data outside the RCG Med&BS work activities and relevant reports)
- **EC** will have the possibility to read or download all the data of all MS, in detailed format for data collected under DCF and in aggregated format for data collected by other sources.
- **Public**: Access to documentation available in the Med&BS-RDB (e.g. MS Work Plans, ARs, Manuals, relevant legislation)

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Policy for Use of Data [1]

- The MS always retain complete responsibility for data **quality** and when necessary for updating
- The "host" may perform some data quality/integrity control
- MS are responsible to **update** and process their own data in the Med&BS-RDB, when changes (new data and revisions) are made in the data source (the national database containing the primary data)
- It is the responsibility of the MS to make sure that data that cannot be identified to any individual vessel or legal entity or at a resolution violating **confidentiality** rules.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Policy for Use of Data [2]

- On request of the SC / RCG Med&BS chairs, the "host" will make data available in a timely way. This data provision will be made according to the **access restrictions** deriving from Regulation No. 2017/1004 and in accordance with the limitations given by the owners of the data.
- Correct and appropriate data **interpretation** is solely the responsibility of data users.
- Data sources must be duly **acknowledged**.
- Data Users must respect any and all restrictions on the **use or reproduction of data** following the EU Regulation No. 2017/1004 and the associated restrictions.
- Data Users are obliged to inform MS and SC of any **suspected problems** in the data.
- Aggregated Data can be shown in **reports**

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Rules for use of data from the Med&BS-RDB

- The data cannot be shared with other persons outside the specific RCG Med&BS or specific Expert Groups (GFCM, STECF) and cannot be used for other purposes than within the specific RCG or specific Expert Groups.
- The data can be stored at the RCG's or Expert Group's SharePoint, but must be password protected, and the chair must control access to the password.
- All persons who have a version of the data must delete the data after the specific RCG or specific Expert Group have finished its work.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Data Quality at Regional Level

- On the basis of the recommendations made by the SC, the "host" could develop and apply quality assurance procedures as appropriate and feasible (The MS always retain complete responsibility for data **quality**)
- The "host" may also receive reports on potentially erroneous data by the SC.
- The "host" will inform the SC of relevant quality issues.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Cost and Funding

Cost and funding will be considered in cooperation with the DG MARE, after the final decisions on the database structure, data policy, design, functionalities and host have been made

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Management of the RDB [1]

RCG Med&BS, decides on:

- the content governance
- data access and sharing policy.
- types of data to be included
- road maps for data uploads
- areas for development.
- appointing members to the Steering Committee

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Management of the RDB [2]

The role of the Steering Committee (SC):

- is composed of members of each country appointed by the RCG Med&BS, plus the "host", the Chairs of the surveys and a representative of the EC.
- Steering Committee is also open for observers from countries, including non EU countries
- will follow the guidance provided by the RCG Med&BS
- is responsible for the technical governance, strategic planning, and operational issues.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Management of the RDB [3]

The role of the RDB Host:

The "host" would dispose human resources, technical expertise and IT infrastructure that can be up-scaled in order to provide database development, administration, maintenance and security.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Establishment of technical WG and cooperation with the GFCM

- The RCG, in cooperation with the RDB SC, will appoint the technical WG to undertake the development of the RDB, following the adoption of the data policy and the scope
- Potential members can be the technicians already involved in the development, maintenance and operation of the national fisheries database, and of the relevant tools that will be finally incorporated in the RDB
- GFCM has asked to cooperate with the technical WG, upon official assignment.
- The involvement of scientists involved in the ICES RDBES setup may also be indispensable for the compatibility of the platforms.

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Suggested roadmap [1]

Action	Responsible for following up	Time / Deadline
Review of the RDB scope, the "Data policy proposal", and the governance model	SC	**August 2019**
National Correspondents and RCG Med&BS to adopt the present report **Appointment of the Technical WG for the RDB development**	National Correspondent/SC/ RCG Med&BS	**2019 RCG Med&BS meeting (September 2019)**
Adoption of the "Data policy" document	GFCM (upon official agreement)	**November 2019**
Develop a roadmap for the RDB development, estimate costs	**GFCM- Technical WG**	**November 2019**

Mediterranean and Black Sea Regional DataBase (Med&BS-RDB)

Suggested roadmap [2]

Action	Responsible for following up	Time / Deadline
Condense the input from the different NCs, RCG Med&BS, GFCM, Technical WG and formulate a final proposal	SC	**January 2020**
Meeting with DG MARE to present the final plan and agree on the funding	SC- DG MARE	**February 2020**
Initialisation of the RDB development	**GFCM- Technical WG**	**June 2020**

Thanks for your attention.

Where to go from here?

Regional Co-ordination Group meeting
for the Mediterranean & Black Sea 2019
Qawra, Malta
24-26 September 2019

Review progress since 2018 RCG's and 2018- 2019 Liaison meetings (15th and 16th reports)

Dr. Apostolos Karagiannakos
Chair of Regional Co-ordination Group for the Mediterranean & Black Sea
National Correspondent of Greece

15th Liaison Meeting
(1-2 October 2018)

- The first day of the Liaison meeting was allocated to coordinating and discussing with end users.
- - ICES presented the development of a Stock Information Database (SID) and Regional database and estimation system (RDB-ES).
- - GFCM presented the Data Collection Reference Framework (DCRF).
- - The DG MARE International Unit B2 presented the view of the tuna RFMOs, and their means to communicate on data quality.
- The COM (JRC) also presented an online platform under development to address the data transmission failures (DTF), in connection with the end-users feedback on data quality.
- Recommendations from the MED&BS RCG that were presented in the LM - Amendment of the Rules of procedure for the RCG Med&BS; Mesozooplankton sampling in MEDIAS surveys; Establishment of Intersessional sub groups for the RCG Med&BS and Setting up of a Regional Database for the RCG Med&BS

16th Liaison Meeting

(3-4 September 2019)

- RCG Med & BS set **reservations to all Sub-Groups' reports** (recreational fishery, Regional Database and data for end users).
- RCG Med & BS meeting report for EU MAP revision (Madrid, 16 September 2019) **may be considered by the STECF as final**. It has been shaped in the presence of all the Mediterranean MS national correspondents and after its shaping no further comments have been flagged by any MS (this does not mean that every Mediterranean MS is committed to follow this report during the negotiations for the EU MAP reform proposal). The formal Commission's proposal has not yet been formulated.
- **Co-operation between RCGs is needed** when dealing with the same issues in different marine areas. It is vital for the Sub-Groups to work on a common basis.
- ICCAT will launch an **electronic platform for data entry** next March.
- ICES highlighted the issue of **confidentiality of the VMS data**.
- EC stressed that actions should be taken to ensure the **funding of the Regional Database**. It is not clearly understood whether the EC will finance all RDBs or objections raised about the northern countries' RCGs, which are planning to upgrade their RDB to RDBES.
- JRC will **compare the data submitted to the Med data call with that of the FDI**.

Regional Coordination Group (RCG) Decision Meeting

(5 September 2019)

- EC should **report on the implementation of Reg. (EC) 1004/2017** and ask all MS views before it's issue.
- **EU MAP reform presented by EC:** The EU MAP will remain as it stands for the period 2020-21. Time is needed for it's reform, MS will maybe accordingly adjust their WP at least 2 months before January 1st, 2021. There is a possibility that the reformed EU MAP will be adopted before 2021.
- **STECF will provide its view on the reform** in November. France asked on what terms of reference (ToRs) STECF will provide its scientific advice. Then, each MS will give its opinion on the issues/ points that need to be corrected/ modified and what it is expected by these corrections. This will be done by the Experts' Committee (for the delegated act) and by the Committee for Fisheries & Aquaculture (for the implementing act). It is possible that both legislative acts' proposals will be delivered in November. The reform is not expected to include any "revolutionary" changes; it will rather introduce a more balancing scheme between the need for data and the data-collection attainment. The regional dimension of the reformed EU MAP will play a crucial role.
- **WP for 2020-2021 will have to be re-submitted for legal purposes**, although a MS may not have submitted any changes to its WP. Relevant forms for the WP have already sent, if there are any changes compered to the previous one, they should be submitted summarized (in bullet points). ATTENTION to the WP to refer to the new legal framework for the extension 2020-2021.
- STECF will provide its advice on surveys by using **the Decision Support Tool (DST)**, a "yes or no" tool which will facilitate the decision on whether the surveys will be mandatory or not. It will also take into account the needs for sampling for environmental purposes, in accordance with the Maritime Strategy indicators.

Regional Coordination Group (RCG) Decision Meeting

(5 September 2019)

- The adoption of the new **Regulation on Technical Measures**, is expected to **increase the need for data-collection** mainly for the implementation of the landing obligation, the recreational fishery and the risk assessments for PETS by-catch. The sampling intensity should be implemented on the 5-10% of the fishing vessels (Reg. for Techn. Measures). There have been reactions on this issue mainly from the northern MS. Based on the scientific advice, there will be a possibility to modify this aspect in the Reg. for the technical measures. These will also be foreseen by the reformed EU MAP.
- Denmark raised the issue of **personal data protection**. The newly issued General Data Protection Regulation (GDPR) (EU) 2016/679 prohibits the storage of electronic logbooks and VMS data for more than 5 years, which provokes serious problems for the Data Collection Program. For this reason Denmark modifies (rather anonymize) personal data to be able to maintain them for more than 5 years. There will also be an issue/ problem with the video cameras being operated to fishing vessels for the control of the landing obligation.
- **ARs and data transmission issues**: STECF initially assesses data transmissions in data calls by using the **Data Transmission Monitoring Tool (DTMT)** located at the JRC. In the context of EMFF, EC evaluates the program being implemented by the MS i.e., their performance by using 4-5 criteria including data transmission failures, participation in Working Groups, in the RCGs and the National Coordination Meeting. EC encourages MS for additional criteria to be proposed. MS failure to implement the Program is mainly attributed to data transmission failure.

MARE/2016/22

Call for Proposals MARE/2016/22 "Strengthening regional cooperation in the area of fisheries data collection", Annex 1 "Biological data collection in EU waters"

Strengthening Regional cooperation in the area of fisheries biological data collection in the Mediterranean and Black Sea, STREAM (SI2.770115)

Regional Coordination Group Med&BS, 24-26 September 2019, Qawra (Malta)



Project funded by the European Union

MARE/2016/22

STREAM is one of the four grants funded under the EU Call for Proposals MARE/2016/22 "Strengthening regional cooperation in the area of fisheries data collection".

MAIN OBJECTIVES

Building on the experience from the grants MARE/2014/19 Med&BS and FishPi, STREAM was aimed at providing elements, tools* and expertise that will promote and support the design of Multiannual Regional Work Programmes (MRWP) in the Mediterranean and Black Sea relying on a common and harmonized design.

The MRWP includes a regional sampling scheme covering commercial fisheries, impacts on the ecosystem (i.e., community indicators, trophic ecology, bycatch), and procedures for quality assessment of biological data at regional level.

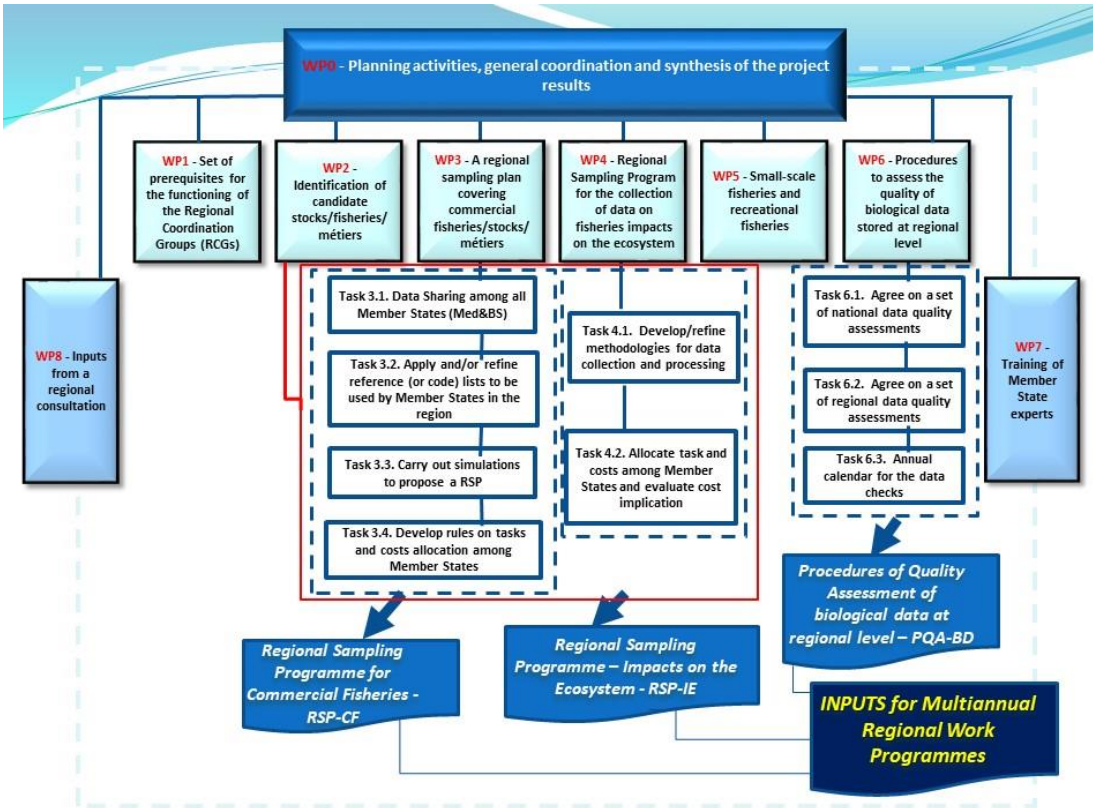
*routines, R scripts, methodological approaches useful to the improvement of data precision, completeness and accuracy.

MARE/2016/22

The STREAM Consortium

- 50 scientists
- 12 institutes
- 8 Member States
- 9 Work Packages address biological data collection in EU waters (Annex 1). Mediterranean and Black Sea
- The consortium reunites many of the participants of the previous grant MARE/2014/19 Med&BS





MARE/2016/22

Work-package 1: Set of prerequisites for the functioning of the Regional Coordination Groups (RCGs)

WP1 Chair: P. Carpentieri (NISEA); Co-chair: T. Zaharia (NIMRD)

Objectives

WP1 complemented the work of the Regional Coordination Groups for the Med&BS by means of providing

1) **inputs to the existing rules of procedures**
2) **inputs for the functioning of the RCG Med&BS, and**
3) **draft a work-plan with the inclusion of ad hoc meetings and/or working groups under the RCG umbrella.**

MARE/2016/22

PROPOSED WOKPLAN

Proposed Work-plan		
Meeting/WG/Expert consultation on	**Scope**	**Timeframe**
Recreational fishery	Harmonization of existing guidelines/methodologies; identification of data needs; sharing of knowledge and experience in the data collection	*To be decided*
Data transmissions issues	Assessing the data failures identified by main end users in the Region;	Every year
Marine ecosystem data	Addressing regional needs for the collection of stomach contents, benthos and marine litter; identification of data needs; share knowledge and experience in the data collection.	*To be decided*

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Proposed Work-plan		
Meeting/WG/Expert consultation on	**Scope**	**Timeframe**
Sampling stratification and optimization of biological data	**Revision by country of the sampling stratification and proposing sampling optimization using the sampling design tool and data.**	**Every year**
Incidental catch of seabirds, marine mammals, sea turtles, sharks and rays	**Harmonization of common protocol on data collection; issues related to data sharing; analysis on data quality.**	***To be decided***
Regional/sub-regional sampling plans	**Harmonization of common protocol on data collection; issues related to data sharing; analysis on data quality.**	**Every year**

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Work Package 2 – Identification of candidate stocks/fisheries/métiers presenting a wide scope for regional sampling and for which Member States could share sampling tasks

WP2 Chair: M. Panayotova (IO-BAS); **Co-chair:** G. Scarcella (CNR-ISMAR)

Objectives

- Identify the most commercially important stocks and fisheries (métiers), beneficial for regional sampling, for which Member States could share sampling tasks using agreed methodologies, ensuring coherent regional data sets with sufficient quality for the end user needs.

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List of proposed stocks/fisheries/métiers presenting a wide scope for regional sampling (criteria for selection are shown).

Area	GSAs	Countries	Fisheries	Species	Ranking	GFCM priority species	MAP or DP	$F/F_{MSY} > 1.66$
Western Mediterranean	1, 2, 5, 6, 7, 8	Spain, France	OTB_DEMSP, LLS	M. merluccius (HKE) P. longirostris (DPS)	X X	X X	X X	X
Western Mediterranean	9, 10, 11	Italy	OTB_DEMSP, OTB_MDDWSP, LLS, GNS	M. merluccius (HKE) P. longirostris (DPS) N. norvegicus (NEP)	X X X	X X	X X X	X X
Western Mediterranean	1, 2, 5, 6	Spain	OTB_DWSP	A. antennatus (ARA)	X		X	X
Western Mediterranean	9, 10, 11	Italy	OTB_DWSP, OTB_MDDWSP	A. antennatus (ARA) A. foliacea (ARS)	X		X X	
Western Mediterranean	1, 2, 5, 6, 7	Spain, France	SPF_PS	E. encrasicolus (ANE) S. pilchardus (PIL)		X X	X X	X X
Western Mediterranean	9, 10, 11	Italy	SPF_PS	E. encrasicolus (ANE) S. pilchardus (PIL)	X X	X X	X X	X
Adriatic Sea	17,18	Italy, Croatia, Slovenia	OTB_DEMSP	M. merluccius (HKE) M. barbatus (MUT) N. norvegicus (NEP)	X X X	X X	X X	X
Northern Adriatic	17	Italy, Croatia, Slovenia	TBB_DEMSP, GNS_DEMSP	Solea solea (SOL)	X		X	
South Adriatic and Ionian sea	18, 19, 20	Italy, Greece	OTB_DEMSP, OTB_DWSP, OTB_MDDWSP	P. longirostris (DPS) A. antennatus (ARA)	X X		X	
Adriatic Sea	17, 18	Italy, Croatia, Slovenia	PS_SPF, PTM_SPF	E. encrasicolus (ANE) S. pilchardus (PIL)	X X	X X	X X	X X
Strait of Sicily	15, 16	Italy, Malta	OTB_DEMSP, OTB_DWSP, OTB_MDDWSP	M. merluccius (HKE) P. longirostris (DPS) A. foliacea (ARS)	X X	X X	X X X	X
Eastern Mediterranean	22, 23, 25	Greece, Cyprus, Italy	OTB_DWSP, OTB_DEMSP	M. merluccius (HKE) A. foliacea (ARS)	X		X X	
Black Sea	29	Bulgaria, Romania	GNS_DEMF, GNS_MDPSP	S. maximus (TUR)	X	X	X	X
Black Sea	29	Bulgaria, Romania	OTM_MDPSP, FPN_MDPSP, GNS_SPF	M. barbatus (MUT)		X		
Black Sea	29	Bulgaria, Romania	OTM_SPF	S. sprattus (SPR)	X	X		

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WP3 - A regional sampling plan (RSP) for 2019 covering commercial fisheries/stocks/métiers

WP Leader: M.T. Spedicato (COISPA) and co-chair S. Kavadas (HCMR)

Participants: COISPA, HCMR, CIBM, CNR-ISMAR, DFMR, FRI, IEO, IO-BAS, IOF, NIMRD, NISEA

Objectives:
Designing and proposing a regional sampling plan (RSP) for 2019 covering commercial fisheries/stocks/métiers (RSP-CF), taking advantage of the experience of the previous grants (i.e. MARE/2014/19 Med&BS and FishPi)

Sampling stratification criteria:

- ✓ **technical** (e.g. by metier or gear),
- ✓ **temporal** (e.g. by quarter or semester)
- ✓ **spatial** (e.g. single GSA or combined GSAs)

Task	Name	Resp.	Deliverable
T 3.1	Data Sharing among all Member States of the regions (Med and BS)	C. Charilaou (DFMR)	D3.1 Data Sharing Agreement
T 3.2	Apply and/or refine reference (or code) lists to be used by Member States in the region and identify possible solution for data storage system, processing and analysis of the data at regional level	M.T. Facchini (COISPA)	D3.2 Updated RCM MED&BS-LP standard format and code lists and identification of possible solution for data storage system, processing and analysis of the data at regional level
T 3.3	Carry out simulations to propose a RSP-CF for 2019	M.T. Facchini (COISPA)	D3.3 Routine and on the refining of the methodological framework for sampling optimization and report from the case studies
T 3.4	Develop rules on how to allocate tasks and costs between Member States and evaluate costs implication for 2019	S. Kavadas (HCMR)	D3.4 Guidelines with rules on how to allocate tasks and costs among Member States and Routine on the evaluation of costs implications for Member States and application to case studies

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WP3 - A regional sampling plan (RSP) for 2019 covering commercial fisheries/stocks/métiers
OUTCOMES

TASK 3.2

✓ Update the RCG Med&BS Data Call format for the storage of primary data from commercial fisheries sampling including additional information in CS and CL tables.

CS (Commercial Sampling)

RCM Med&BS-LP 2017 format CS table	Final Proposal for RCM Med&BS-LP 2018 format CS table	
Sampling type	Sampling type	
Flag country	Flag country	
Year	Year	
Trip code	Trip code	harbour
-	Harbour	
Number of sets / hauls on trip	Number of sets / hauls on trip	
Days at sea		
Sampling method	Sampling method	
Aggregation level	Aggregation level	
Station number		
-	Duration of fishing operation	duration, position and depth
-	Initial latitude	
-	Initial longitude	
-	Final latitude	
-	Final longitude	
-	Depth of fishing operation	
-	Water depth	
Catch registration	Catch registration	
Species registration	Species registration	
Date	Date	
Area	Area	
Fishing activity category National	Fishing activity category National	
Fishing activity category European lvl 6	Fishing activity category European lvl 6	
Species	Species	
Catch category	Catch category	
Weight	Weight	
Subsample weight	Subsample weight	
-	sex	sex, maturity and age
-	maturity Method	
-	maturity Scale	
-	maturity Stage	
-	age Method	
-		
Length class	Length class	
Length code	Length code	
Number at length	Number at length	
Commercial size category scale	Commercial size category scale	
Commercial size category	Commercial size category	weight
-	fish ID	
-	individual Weight	

CL (Commercial Landings)

RCM Med&BS-LP 2017 format CL table	Final Proposal for RCM Med&BS-LP 2018 format CL table
Flag country	Flag country
Year	Year
Quarter	Quarter
Month	Month
Area	Area
Species	Species
Fishing activity category National	Fishing activity category National
Fishing activity category European lvl 6	Fishing activity category European lvl 6
-	Harbour
Official landings weight	Official landings weight
Official landings value	Official landings value

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WP3 - A regional sampling plan (RSP) for 2019 covering commercial fisheries/stocks/métiers
OUTCOMES

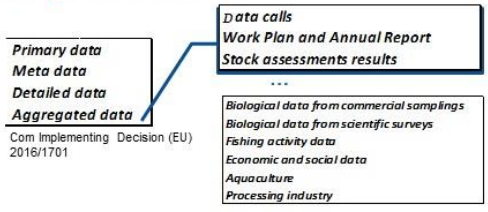
TASK 3.2

✓ Identify solutions for a regional database for Med&BS by defining…

Stakeholders/potential users

MSs (Member States) (s/u)
WGs (Expert Working Groups STECF, GFCM, ICES, RCGs) (u)
DG MARE (s)
JRC (Joint Research Centre) (u)
STECF (Scientific Technical and Economic Committee for Fisheries) (s/u)
GFCM (General Fisheries Commission for the Mediterranean) (s/u)
SAC (Scientific Advisory Committee on Fisheries) (s/u)
RCGs (Regional Coordination Group) (s/u)
ICES (International Council for the Exploration of the Sea) (s)
NGOs and other public initiatives (s)

Data type and domain



Sharing and accessibility

Online authentication	Users	Public: Not sensitive information	Semi-private: Partially sensitive information	Private: Sensitive information
No	General public	X		
Yes	National data submitters/owners	X	X	X
Yes	Stock assessment experts	X	X	
Yes	Annual report evaluation experts	X	X	
Yes	Data check and data analyses experts	X	X	X

Functionalities

RDB Users	Data aggregation level	Functionality	Description	Available in existing IT systems in Mediterranean context
National data submitters/owners	Primary data	Data check	Perform quality checks on collected primary data before submission	YES. External tool for data quality checks: fishPifct R package based on functions from SDEFQuality R package (developed under MARE/2014/19 Med&BS project) and functions developed under FishPi project and new scripts developed under Task 6.1 of STREAM project; COST functions for data exploration.
...	...	...	...	...

MARE/2016/22

WP3 - A regional sampling plan (RSP) for 2019 covering commercial fisheries/stocks/métiers OUTCOMES

TASK 3.2

✓ Evaluate options regarding the hosting of a RDB against **three available scenarios**, taking into account the current situation, ongoing studies, developments and suggestions as well as needs from STECF, GFCM and ICES working groups.

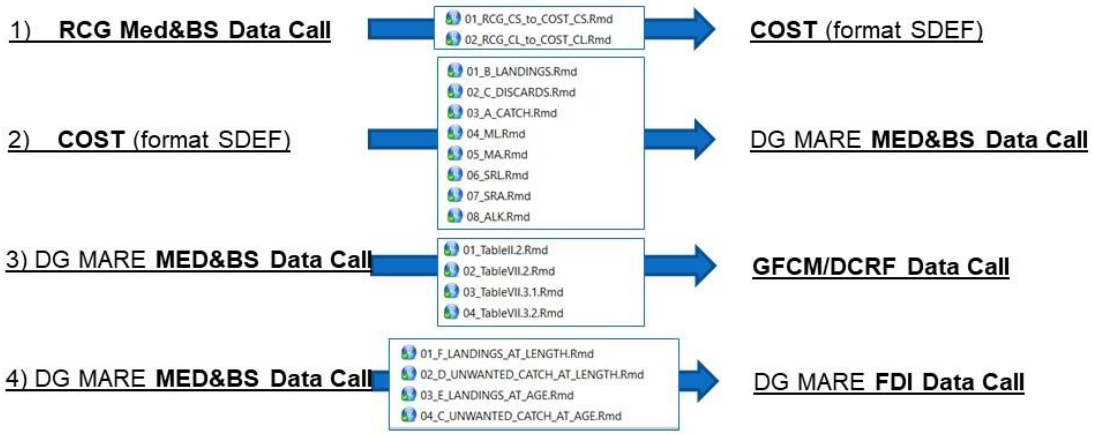
- **GFCM**
  - **Data Collection Reference Framework** (DCRF) for the collection and submission of fisheries-related data in the GFCM area (Med & BS)
  - providing technical support and resources to start fisheries data collection in many **non-EU countries** (e.g. Albania, Montenegro, Lebanon, Egypt, etc.) acting in close cooperation with FAO sub-regional projects (AdriaMed, MedSudmed, EastMed, CopeMedII)
- **JRC**
  - **Data dissemination tool** allowing to access the data mainly related to the to the different Data Calls issued by DG MARE
  - Data are made freely available in **aggregated form**, after being published in official STECF reports
- **ICES**
  - experience from a new **Regional Database and Estimation System** (RDBES) currently being developed including statistical estimation methods for the raising of sampling data
  - **new data format** providing a common structure to describe both the disaggregated sampling data and, most importantly, how it was sampled (i.e. **information on sampling design**)

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WP3 - A regional sampling plan (RSP) for 2019 covering commercial fisheries/stocks/métiers OUTCOMES

TASK 3.2

✓ Develop auxiliary tools (R-scripts) to standardize and ease the procedures for data processing and delivering to specific data calls including the following data transformations.



MARE/2016/22

WP4 – Regional Sampling Program for the collection of data on fisheries impacts on the ecosystem

Chair: Beatriz Guijarro (IEO); co-chair: Paolo Sartor (CIBM)

Partners involved: IEO, CIBM, COISPA, CNR-ISMAR, NISEA, HCMR, FRI, DFMR, IOF, IO-BAS, NIMRD, REVIVO.

Main objective: To elaborate a MRWP covering the collection of data on fisheries impacts on the ecosystem

1. **Data on stomach contents of fish.**
2. **Data on co-occurrence and relative abundance of species/stocks.**
3. **Data on incidental catch and by-catch of non-target species, such as protected, endangered or threatened species (PET species).**

Specific objectives:

- **Identify areas of regional cooperation for the implementation of the regional sampling plan on fisheries impact on the ecosystem.**
- **Develop or refine methodologies for data collection, processing and raising and propose solutions for data storage at regional level.**
- **Allocate among Member States the tasks for the collection and analysis of these data, and assess cost implications**

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Sub-Task 4.1.1 Data on stomach contents of fish

The proposed sampling protocol is a review of the one proposed by the Project MARE/2014/19 Med&BS, taking into account the review carried out by WKSTCON, and the outcomes of pilot studies. It was agreed at Mediterranean and Black Sea.

In the Mediterranean, the **blackbellied anglerfish**, ***Lophius budegassa***, was proposed as the candidate stock to be coupled with ***M. merluccius*** in the stomach content analysis. It is a commercially important and piscivorous species, with hake among its preys; ***L. budegassa*** is occurring in the same species assemblage of *M. merluccius*, although with notably lower density values. **Monkfish *L. pisctorius*** will be included. The two species show very similar ecological characteristics. Therefore, the sampling plan was designed for ***Lophius* spp.**

Besides turbot, other two species were chosen for stomach analyses in the Black Sea: **Mediterranean horse mackerel**, ***Trachurus mediterraneus***, and **sprat**, *Sprattus sprattus*, based on their trophic and ecological importance, as well as the commercial importance and the inclusion in the current DCF.

European Hake in Mediterranean; proposal on number of full stomachs to be sampled, by type of sampling, quarter and size class, for each GSA

Biological sampling (landing and discard)	Full stomachs to sample			
Quarter	Juveniles	Sub-adults	Adults	Total
I	30	30	30	90
II	30	30	30	90
III	30	30	30	90
IV	30	30	30	90
Total biological sampling	120	120	120	360
Experimental trawl survey (MEDITS)	Full stomachs to sample			
	20	20	20	60
Total survey	20	20	20	60
Total	140	140	140	420

Anglerfish (*Lophius* spp.) in Mediterranean; proposal on number of full stomachs to be sampled, by type of sampling, quarter and size class, for each GSA

Biological sampling (landing and discard)	Full stomachs to sample		
Quarter	Small	Large	Total
I	12	12	24
II	12	12	24
III	12	12	24
IV	12	12	24
Total biological sampling	48	48	96
Experimental trawl survey (MEDITS)	Full stomachs to sample		
	12	12	24
Total survey	12	12	24
Total	60	60	120

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Turbot in Black Sea; proposal on number of full stomachs to be sampled, by type of sampling, quarter and size class

*In Romania, commercial fishing of turbot is carried out only with gillnets and no discards or < 45 cm individuals are reported. In Romanian waters is very unlikely to achieve the target value for discarded adults (30 ind. x 4 seasons).

Biological sampling (landing and discard)	Full stomachs to sample			
Quarter	Juveniles	Discarded adults*	Landed adults	Total
I	0	30	30	60
II	0	30	30	60
III	0	30	30	60
IV	0	30	30	60
Total biological sampling	0	120	120	240
Bottom trawl survey	Full stomachs to sample			
	15	30	30	75
Total survey	15	30	30	75
Total	15	150	150	315

Mediterranean horse mackerel in Black Sea; proposal on number of full stomachs to be sampled, by type of sampling, quarter and size class

* The presence of juveniles is conditional to migrations and depends on the season. Hence, in the Bulgarian waters it may be not always possible to achieve the proposed sampling.

**Horse mackerel is present in Romanian waters only at the end of May (for about 2 weeks); in summer it is missing, and it returns in autumn (starting in September). Reported catches are very small (30 tons), only from pound nets.

Biological sampling (landing and discard)	Full stomachs to sample		
Quarter	Juveniles*	Adults	Total
I	30	150	180
II	15	75	90
III	30	150	180
IV**	0	0	0
Total biological sampling	75	375	450
Research survey	Full stomachs to sample		
	30	70	100
Total survey	30	70	100
Total	105	445	550

Sprat in Black Sea; proposal on number of full stomachs to be sampled, by type of sampling, quarter and size class

Biological sampling (landing and discard)	Full stomachs to sample	Total
Quarter		
I	200	200
II	200	200
III	200	200
IV	200	200
Total biological sampling	800	800
Research survey	Full stomachs to sample	
	100	100
Total survey	100	100
Total	900	900

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Sub-Task 4.1.2 Data on co-occurrence and relative abundance of species/stocks

Sub-Task 4.1.2 proposed **a common procedure of data analysis for identifying and monitoring the main species assemblages and to monitor the species co-occurrence, relative biomass and density over time,** according to a standardized methodological approach.

The proposed methodology includes standardised routines to identify and periodically monitor the structure of the main demersal species assemblages and to analyse the co-occurrence and relative abundances of the most important species of each assemblage.

The methodological approach is divided into two phases:

Phase 1 - Identification and monitoring of the main demersal species assemblages

Starting from survey data (e.g. MEDITS). Due to the substantial temporal and spatial stability of the species assemblage composition, we propose to monitor their composition **every three years** to detect possible changes.

Phase 2 – Analysis of the co-occurrence and relative abundances of the species characterizing each assemblage:

The proposal is to use simple indicators that could be easily applied to survey datasets for the evaluation of impacts of fisheries on the ecosystem. This analysis should be performed routinely every year.

- **Spearman's rho index** on the time series on the density and abundance indices over time of each species. R script to calculate the index is available;
- **Temporal evolution of the frequency of occurrence** (e.g. the number of positive hauls/total number of hauls per survey) at species/area level.

GSA 9. Spearman's rho results: rho values and significance levels (n.s. = not significant, * = p<0.05, ** = p<0.01, *** = p<0.001). Green cells identify the positive correlations, red cells the negative ones.

	Density		Biomass	
	ρ value	significance	ρ value	significance
E. cirrhosa	-0.516	*	-0.58	**
E. encrasicolus	0.383	n.s.	0.231	n.s.
E. spinax	0.410	*	0.405	n.s.
G. argenteus	-0.394	n.s.	-0.214	n.s.
G. melastomus	0.710	***	0.419	*
H. mediterraneus	0.802	***	0.832	***
H. italicus	0.313	n.s.	0.226	n.s.
I. coindetii	0.326	n.s.	0.330	n.s.
M. merluccius	-0.472	*	-0.528	**
M. barbatus	0.534	**	0.662	***
N. norvegicus	0.069	n.s.	0.021	n.s.
P. erythrinus	0.104	n.s.	0.150	n.s.
P. longirostris	0.874	***	0.882	***
P. blennoides	0.086	n.s.	0.044	n.s.
S. pilchardus	-0.267	n.s.	-0.407	*
S. flexuosa	-0.611	**	-0.590	**
T. eblanae	0.077	n.s.	-0.048	n.s.
T. mediterraneus	0.518	*	0.335	n.s.
T. trachurus	-0.282	n.s.	-0.147	n.s.
T. capelanus	-0.330	n.s.	-0.516	*

For small pelagics, it is also proposed the use of the Intersection-union tests (Trenkel and Rochet, 2009), which consists of fitting a nonlinear smoother to the whole indicator series to remove random sampling noise and, if the smoother has sufficient goodness-of-fit, calculating first and second derivatives from the smoothed time series and carrying out a series of tests formulated as an **intersection-union test**.

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Sub-Task 4.1.3 Data on incidental catch of non-target species, such as protected, endangered or threatened species (PET species)

In the light of the experience gained under the previous grant (MARE/2014/19 Med&BS), the work performed by GFCM in preparation of a manual for the monitoring of the by catch of vulnerable species, and the preliminary outcomes of the pilot studies on the monitoring of the by catch of vulnerable species run under some MSs National Programmes (e.g. Italy, Greece, etc.), a new proposal for implementing the monitoring of the by catch of vulnerable species in Mediterranean and Black Sea fisheries was developed under sub-Task 4.1.3.

The proposal of a new Regional Sampling Program for the monitoring of vulnerable species by catch is based on three case studies. This methodological approach can be generalized to other areas and fisheries.





Case study 1 - Demersal OTB fishery targeting European hake and deep-water rose shrimp in GSA07

It is recommended to cover at least the **10% of the fishing days** using the self-sampling approach. Spanish trawlers perform around 2500 fishing days per year in GSA07, while French trawl fleets perform around 11000 fishing days per year in GSA07 (these estimates are computed considering the period 2014-2016). Considering an average fishing days per vessel per year of 150, it is recommended to monitor by means of self-sampling (through log book) **4 Spanish trawlers and 10 French trawlers**. This sampling scheme would allow covering a considerable number of fishing days, higher than the expected target of 10%, thus compensating for possible low response or continuity in the compilation of data by some fishermen.

Costs allocation to Spain:
18 man/days technician staff*

Costs allocation to France:
35 man/days technician staff*
** Technician staff: training to fishermen, management and coordination of self-sampling, data entering.*

	FRA	SPA
Log-book (n. of vessels)	10	4

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Case study 2 - Demersal OTB fishery targeting European hake, red mullet and Norway lobster in GSAs 17 and 18

We recommend covering the **5% of fishing days** by means of self sampling (distribution of log books to the fishermen).
Average of 60000 fishing days per year performed in GSA17 and 50000 in GSA18 by Italian trawl fleets (2014-2016), taking into account an average of 120 fishing days per year per vessel, a total of 30 vessels should be monitored in the GSA17 through the distribution of logbooks, and 25 vessels in GSA18. In Croatia, considering an average of 35000 fishing days per year, the monitoring through self-sampling by means of logbooks should include 15 vessels to be monitored for the entire year. As concerns Slovenia, considering an average fishing activity by trawlers of 1500 fishing days, we recommend monitoring 2 vessels by means of self-sampling through logbooks over the entire year.

Costs allocation to Italy:
GSA 17: 80 man/days technician staff*
GSA 18: 70 man/days technician staff*

Costs allocation to Croatia:
45 man/days technician staff*

Costs allocation to Slovenia:
12 man/days technician staff*

		ITA	HRV	SVN
GSA 17	Log-book (n. of vessels)	30	15	2
GSA18	Log-book (n. of vessels)	25	-	-

** Technician staff: training to fishermen, management and coordination of self-sampling, data entering.*

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Case study 3 - Beam trawl fishery targeting Rapana whelk in GSA29

We propose to implement the monitoring of the by catch of the beam trawl fisheries targeting Rapana whelk (*Rapana venosa*) in the Black Sea. Taking into account that this fishery is performed during a limited fishing season (from May to mid-October) by a limited number of vessels, we believe it will be feasible reaching the target of **7% that is considered as the upper limit of the optimal range** in terms of coverage of fishing activities under the framework of the monitoring of the by catch of vulnerable species.

The proposed sampling scheme consists of 10 fishing days covered by fleet observers on Bulgarian vessels, and 15 fishing days on Romanian vessels. We propose to distribute the log-books (to be filled in by fishermen during each fishing day performed over the Rapana whelk fishing season) to 4 vessels in Bulgaria and 6 vessels in Romania.

Costs allocation to Romania:
30 man/days fleet observers*
22 man/days technician staff**

Costs allocation to Bulgaria:
20 man/days fleet observers*
18 man/days technician staff**

	ROM	BUL
Log-book (n. of vessels)	6	4
Observations on board (days)	15	10

** 2 man/days for each day at sea, considering trip planning, travelling, etc.*
*** Technician staff: training to fishermen, management and coordination of self-sampling, data entering.*

MARE/2016/22

Work-package 5: Small-scale fisheries and recreational fisheries

Chair: F. Grati (CNR); Co-chair: J. Dulcic (IOF)

WP5 performed an exploratory analysis aimed at identifying the available knowledge on Mediterranean and Black Sea small scale fisheries (SSFs) and recreational fisheries (RFs). This analysis was carried out taking into account four case studies areas: north-western Mediterranean Sea, Adriatic Sea, Aegean Sea, and Black Sea.

Furthermore, WP5 provided guidelines on the best practice methodologies for sampling, processing, analysing and managing catch, biological and spatio-temporal data of SSF and RF.



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Roadmap listing the steps that shall be taken by MSs to implement pilot studies on RFs in the new EU MAP. In doing this, we hypothesized the implementation of the new EU MAP for a 6 years time (2020-2025), before further revision

	Step	Aim and description	Responsible	Estimated duration	Timing
1.	Preparation o pilot study	Determine the recreational fishers population structure, effort and target species/catches to enable selection of the best methodology	MS National Focal Points	1 year	2020
2.	Execution of pilot study	Implementation of the selected methodology for monitoring RFs	MS National Focal Points	2 years	2021-2022
3.	Revision Workshop	Evaluate the efficiency and adequacy of the monitoring and implement adaptations if necessary	RCG/ MS National Focal Points	1 week	End of 2022
5.	Regional work plan on RFs	Implementation of a regional programme on RFs	RCG/ MS National Focal Points	3 years	2023-2025

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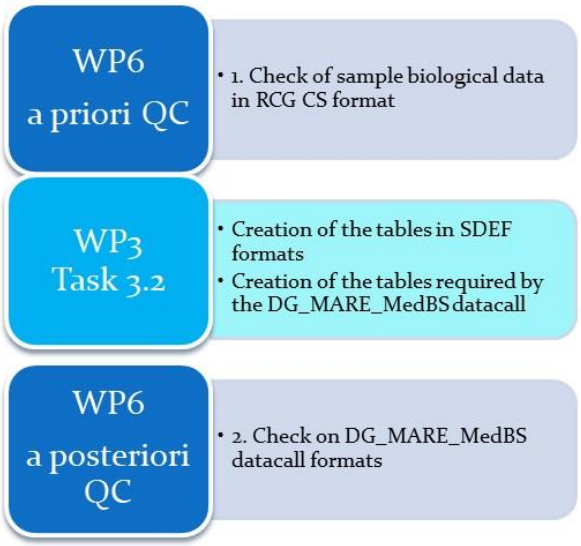
Work Package 6 - Procedures to assess the quality of biological data stored at regional level

Chair: G. Tserpes (HCMR); Co-chair: P. Carbonara (COISPA)

Task 6.1 Agree on a set of national data quality assessments

1. Checks to be performed on the commercial sampling data, **before** the raising procedure to the landing or to the discard (e.g. consistency of Length-frequency distributions (LFDs), maturity data, individual weight, age, etc.);

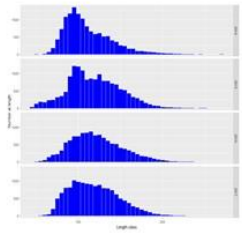
2. Checks to be carried out **after** the elaboration of the data and after the conversion in the format required by DGMARE_MedBS datacall.

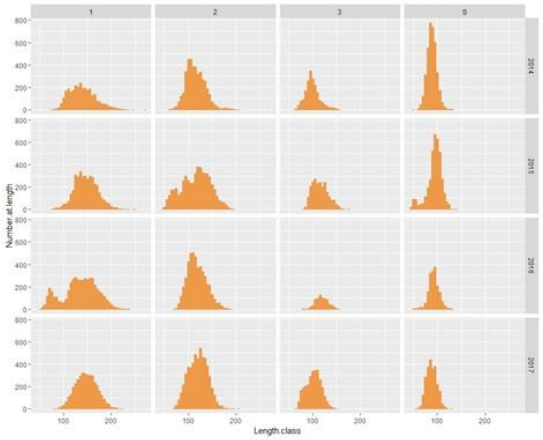


A priori QC on sample biological data in RCG_CS

R script aimed at producing an **automatic reports** containing the outcomes of several essential quality checks to enhance the identification of the most common errors in the sampling data (**before raising procedures**).

Consistency of LFD by year, and by year and commercial category;
Consistency with allowed ranges of length;
Consistency of length-weight relationship;
Consistency with allowed ranges of weight;
Consistency of age-length relationship;
Consistency with allowed range of age;
Consistency of sex and maturity stages.





Visual checks to easily detect outliers

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Detection of outliers

Year	Commercial_size_category	Min	Max
2014	1	75	270
2014	2	60	205
2014	3	65	155
2014	S	50	130
2015	1	75	250
2015	2	45	195
2015	3	80	175
2015	S	45	140
2016	1	50	235
2016	2	70	190
2016	3	80	155
2016	S	50	130
2017	1	80	225
2017	2	70	205
2017	3	65	150
2017	S	55	130

The report informs about possible **lengths outside** the allowed **range**, indicating the **trip code** where were detected the **outliers**

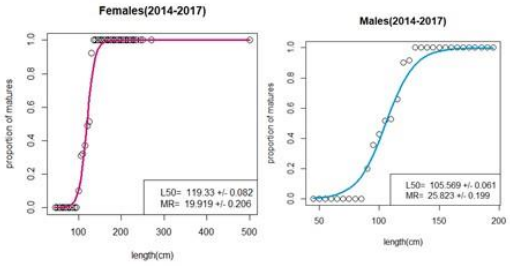
```
## [1] "The maximum length class in the data is: 50 cm"

## [1] "The minimum length class in the data is: 4.5 cm"
```

If any record resulted outside the allowed range, it is showed below.

```
## [1] Records with length outside the allowed range:
## [1] "01_18_2016"
```

Consistency of maturity data, size at first capture



The code carries out the **estimation of the maturity ogive curve by sex**, allowing the checking of the parameters.

A posteriori QC on DG MARE_Med&BS tables

Sampling data can be converted from the RCG_CS/COST to the DGMARE_Med&BS Data Call format using the conversion tools developed by Task 3.2 (also FDI and GFCM Data Calls).

The checks implemented on these tables concern the **temporal and spatial coverage** of the following tables:

Catch at age (landing and discard);
Landing by length;
Discard by length;
Maturity at length;
Maturity at age;
Sex ratio at length;
Sex ratio at age;
ALK;
Growth parameters.

On biological parameters tables, the coverage foresee **visual and tabular outcomes**.

ML

Checking the file ML_MUT18.csv

Maturity at length coverage.

COUNTRY	YEAR	START_YEAR	END_YEAR	SPECIES	SEX
ITA	SA 18	2014	2016	MUT	F
ITA	SA 18	2017	2017	MUT	F
ITA	SA 18	2014	2016	MUT	M

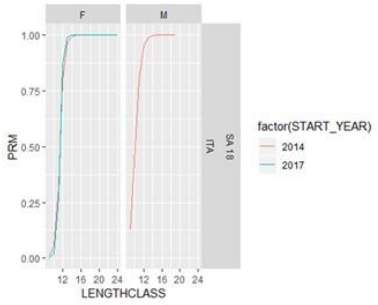
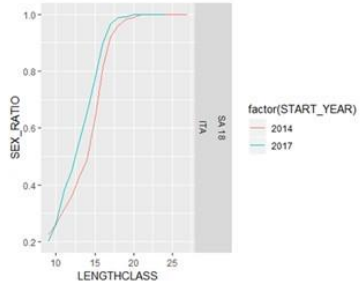


Table 5 -Sex ratio at length coverage.

COUNTRY	YEAR	START_YEAR	END_YEAR	SPECIES
ITA	SA 18	2014	2016	MUT
ITA	SA 18	2017	2017	MUT



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Sum of products

Sum of products

Below the records with a difference in the landing in the sum of products >= of the 5 % are reported.

```
##                              ID check_LANDING
## 1     ITA2016-1-1GNS16D20DEMFSA 18          6.59
## 2    ITA20161-1OTB50D100DEMSPSA 18          5.94
## 7    ITA20163-1OTB50D100DEMSPSA 18          8.16
## 9   ITA20164-1OTB50D100MDDWSPSA 18          5.74
## 11  ITA2014-1-1OTB50D100DEMSPSA 18           5.6
## 12 ITA2014-1-1OTB50D100MDDWSPSA 18          5.21
## 13  ITA2015-1-1OTB50D100DEMSPSA 18          6.27
## 14 ITA2015-1-1OTB50D100MDDWSPSA 18          5.27
## 15    ITA2014-1-1GNS16D20DEMFSA 18          5.46
## 16   ITA2014-1-1GTR16D20DEMSPSA 18          6.86
```

Below the records with a difference in the discard in the sum of products >= of the 5 % are reported.

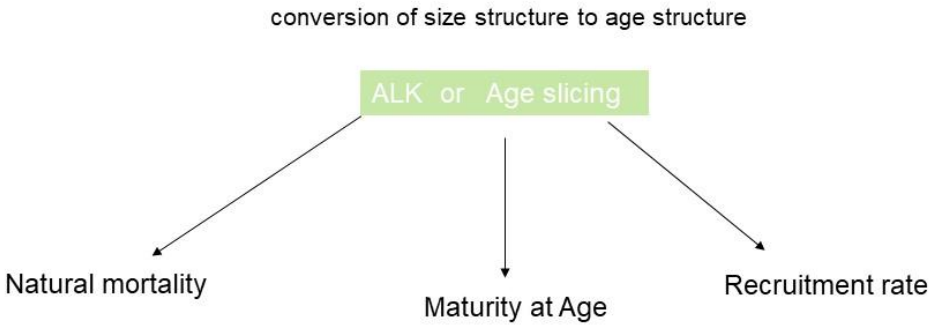
```
##                              ID check_DISCARD
## 2    ITA20161-1OTB50D100DEMSPSA 18          5.04
## 9   ITA20164-1OTB50D100MDDWSPSA 18           5.4
## 10   ITA20164-1OTB50D100DEMSPSA 18          9.46
## 11  ITA2014-1-1OTB50D100DEMSPSA 18          5.23
## 12 ITA2014-1-1OTB50D100MDDWSPSA 18          7.42
```

Specifically for catch at age table, the check concerning the consistency between the **sum of products** (nb of the individuals raised to the landing/discard* individual weight) and the landing/discard.

Task 6.2 Agree on a set of regional data quality assessments

Based on existing quality checks at the regional level and following consultations with Member States and end users, one of the relevant question is related to ageing procedures.

Most of the stock assessment models used, especially the analytical ones, such as Virtual Population Analysis (VPA) and Statistical Catch At Age (SCAA), require knowledge of the demographic structure of the stocks.



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Ageing Data of red mullet (2014-2016, and 2017):

- Total Length
- Age
- Sex
- Weight

Birth date (1° January; 1° July)
False rings considered before the first winter ring
Reader experience (Low: 2000 otoliths; Medium 2000-6000 otoliths; High 6000 otoliths)
Latitude&Longitude

Principal Component Analysis (PCA) was applied to identify the most informative variables influencing the differences in the ageing data of red mullet in the Mediterranean basin.



12 Research Groups from 16 GSAs sent the data according to the Data Call (and Data Sharing Agreement)

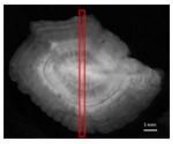
MARE/2016/22

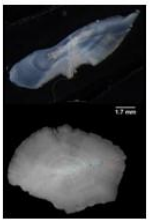
Workshop on Age Reading of Common Pandora (*Pagellus erythrinus*) CIBM Livorno, Italy 26-28 March 2019

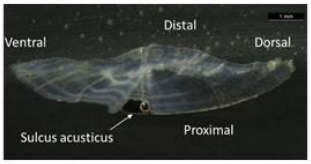


Surname, Name	Country, Affilation	e-mail	Reading procedure
Carbonara, Pierluigi (chair)	Italy, COISPA	carbonara@coispa.it	whole/slice
Casciaro, Loredana	Italy, COISPA	casciaro@coispa.eu	whole/slice
Palmisano, Michele	Italy, COISPA	palmisano@coispa.eu	whole/slice
Massaro, Andrea (chair)	Italy, APLYSIA	andrea.massaro@aplysia.it	whole/slice
Bellodi, Andrea	Italy, UNICA	abellodi@unica.it	whole
Pesci, Paola	Italy, UNICA	ppesci@unica.it	whole
Chatzispyrou, Archontia	Greece, HCMR	a.chatzispyrou@hcmr.gr	whole

Species	Areas	2016	2017	Total
P. erythrinus	South Adriatic Italy (1)	95	51	146
	Central-Southern Tyrrhenian Italy (2)	49		49
	Aegean (3)	137	7	144
Total		281	58	339







smartdots

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Conclusion

The analyses performed on red mullet allowed evaluating the most important drivers influencing the variability in the age analysis. These analyses can represent a first step towards the standardization of ageing protocols aimed at deriving unbiased Age-Length Keys (ALKs). It is recommended to extend this type of analysis to all the species for which age data are requested. Furthermore, it is recommended to perform the evaluation of the sampling intensity for age data using the BiomSim Tool developed by STREAM WP3.

During the workshop, a common protocol for otolith collection, conservation and thin section preparation was agreed. These aspects are considered fundamental to reduce the risk of bias in age determination. Furthermore, a reference collection of 66 common Pandora otolith images was agreed.

The work performed by Task 6.2 allowed establishing procedures (with particular reference to the use of the SmartDots tool) for the organization of exchange exercise and workshop on age reading. Those procedures can be applied and extended to other species. For priority species, the time scheduled for those exchanges and workshops can be designed according to the GFCM benchmark assessment plan, with the exchange and workshop on age determination to be performed 1 year before the benchmark assessment. Those activities can be performed under the umbrella of RCG, with the active involvement of the main end-users (GFCM and STECF) in order to streamline the communication and use of the results.

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Task 6.3 – Annual calendar for the data checks

The objective of Task 6.3 was to develop and propose a detailed calendar for national and regional checks.

The national quarterly checks realized within the sampling year refer to the a priori checks; the last a priori check is foreseen by February in order to allow more time for completing the data entry of the previous year, as well as minor overall checks and corrections. The following checks to be performed in the year X + 1 concern the a posteriori checks applied to the raised samples before submission. Checks at regional level can also be performed using similar procedure as the a posteriori checks.

	Year *X*												Year *X + 1*				
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
National checks																	
Regional checks																	

a priori
a posteriori
possible extension for *a posteriori* checks (see text)
regional checks (*a posteriori* checks)

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WP7 - Training of Member State experts

Chair: C. Charilaou (DFMR); Co-chair: M.T. Facchini (COISPA)

Partners involved: DFMR, COISPA, CIBM, CNR-ISMAR, NISEA, HCMR, FRI, IEO, IOF, IO-BAS, NIMRD, REVIVO

Duration: 11 months (months 4 – 14)

Objective: Ensure MSs experts are trained on the main outcomes resulting from the previous WPs (1-6) through the organization of relevant technical workshops.

Work Plan:

- Identify all relevant institutes involved in data collection activities in the region (review DCF websites, Annual Reports, National Programmes & Work Plans, circulate lists to NCs for confirmation/ possible updating)
- Collect information on available expertise in key aspects of the proposed regional sampling, as well as possible training needs (circulation of ad-hoc questionnaires)
- Organise relevant workshops for the experts in the region (the organization of two training workshops is expected).

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Analysis of ad-hoc questionnaires

Feedback received from 20 institutes from all MS in the Med&BS region

Member State	Institutes with response to the ad-hoc questionnaire	
	Name	**Abbreviation**
Bulgaria (BGR)	Institute of Fisheries and Aquaculture (IFA)	BGR_IFA
	Institute of Fishery Resources (IFR)	BGR_IFR
	Institute of Oceanology - Bulgarian Academy of Sciences (IO-BAS)	BGR_IO-BAS
Croatia (HRV)	Institute of Oceanography and Fisheries (IOF)	HRV_IOF
Cyprus (CYP)	Department of Fisheries and Marine Research (DFMR)	CYP_DFMR
France (FRA)	French Research Institute for the Exploitation of the Sea (IFREMER)	FRA_IFREMER
	French Research Institute for Sustainable Development (IRD)	FRA_IRD
Greece (GRC)	Fisheries Research Institute (FRI)	GRC_FRI
	Hellenic Centre for Marine Research (HCMR)	GRC_HCMR
Italy (ITA)	Consorzio per il Centro Interuniversitario di Biologia Marina ed Ecologia Applicata "G. Bacci" (CIBM)	ITA_CIBM
	National Research Council (CNR) - Institute for Coastal Marine Environment (IAMC), from 9/2018 Institute for Biological Resources and Marine Biotechnology - IRBIM)	ITA_CNR IRBIM (former IAMC)
	National Research Council (CNR) – Institute of Marine Sciences (ISMAR), from 9/2018 Institute for Biological Resources and Marine Biotechnology -IRBIM)	ITA_CNR IRBIM (former ISMAR)
	COISPA Tecnologia & Ricerca	ITA_COISPA
	UNIMAR società cooperativa	ITA_UNIMAR
	University of Cagliari - Department of Life Science and Environment (UniCa)	ITA_UniCa
Malta (MLT)	Department of Fisheries and Aquaculture (DFA - MESDC)	MLT_DFA-MESDC
Romania (ROU)	National Institute for Marine Research & Development (NIMRD)	ROU_NIMRD
Slovenia (SVN)	Fisheries Research Institute (FRI)	SVN_FRI
	REVIVO	SVN_REVIVO
Spain (ESP)	Spanish Institute of Oceanography (IEO)	ESP - IEO

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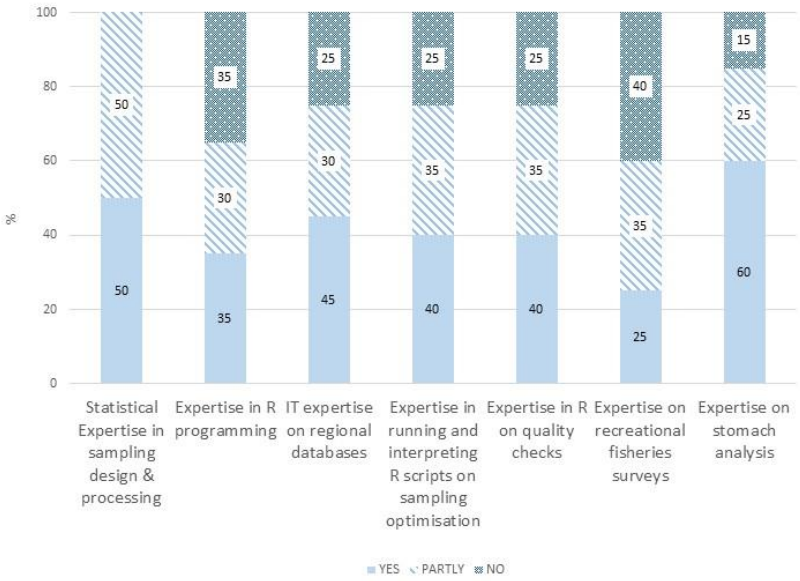
Analysis of ad-hoc questionnaires - MAPPING OF EXPERTISE

Information on available expertise within the institutes on the following data collection fields:

- Statistical expertise in sampling design, processing and raising of data
- Expertise in programming in R
- IT expertise for the development and management of regional data storage systems
- Expertise in running and interpreting scripts developed in R on sampling optimization
- Expertise in running quality checks on datasets and interpreting outputs in R
- Expertise in recreational fisheries surveys
- Expertise in stomach analysis
- Expertise on PETS identification, specifically for each category (Marine mammals, sea birds, sharks and rays, reptiles)
- Level of experience in age reading (in case the institute is involved in age reading)

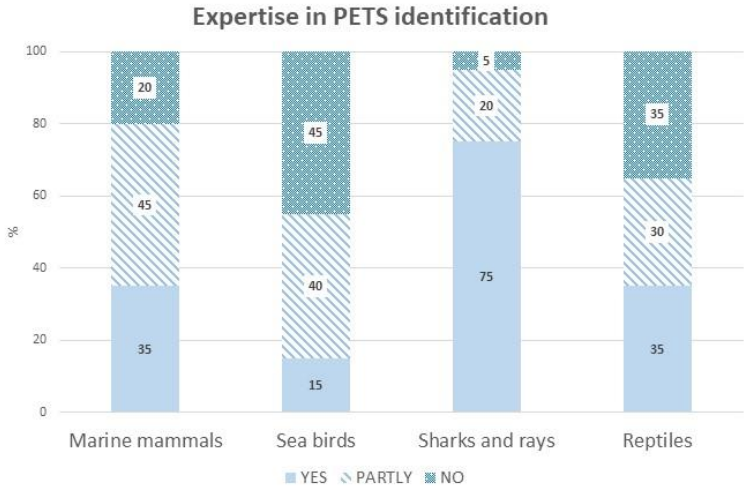
MARE/2016/22

MAPPING OF EXPERTISE
at institutional level in the Med&BS region



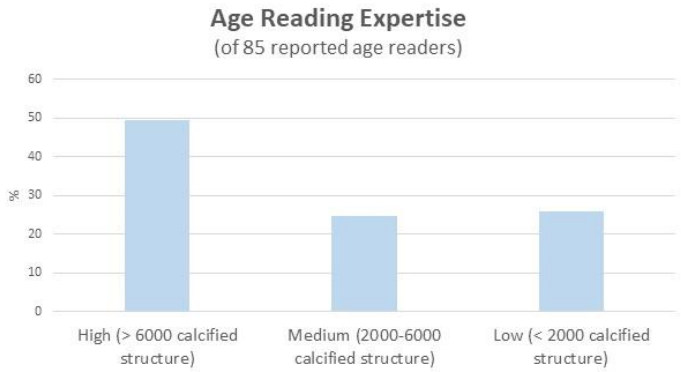
MARE/2016/22

MAPPING OF EXPERTISE
at institutional level in the Med&BS region



MARE/2016/22

MAPPING OF EXPERTISE
at institutional level in the Med&BS region



Note: Age readers from sclerochronology centre in IFREMER Boulogne sur Mer (with high-level of experience) not included in the 85 reported age readers.

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Availability of institutes for regional activities

Institutes with expertise on the different data collection fields were additionally requested to provide information on their availability in:

- participating in networks for developing regional work;
- providing training;
- participating in task sharing (namely receiving samples from other institutes).

Regional activity	No. of institutes available	Name of Institute	Experts available (included upon approval)	Comments
Availability of institutes with expertise statistical and/or R programming for participating in a **network to develop regional sampling design**	8	BGR_IO-BAS	Violin Raykov Marina Panayotova Maria Yankova	Additional institutes with partial expertise have stated their availability: SVN - REVIVO
		FRA_IFREMER Séte		
		FRA_IRD		
		GRC_HCMR	S. Kavadas G. Tserpes D. Damalas	
		ITA - CIBM	Alessandro Ligas Claudia Musumeci Mario Sbrana	
		ITA_CNR IRBIM	Michela Martinelli Alberto Santojanni Stefano Guicciardi	
		ITA_COISPA	Isabella Bitetto Maria Teresa Spedicato Walter Zupa Giovanni Romagnoni	
		MLT_DFA - MESDC	Reno Micallef Miriam Gambin	

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Regional activity	No. of institutes available	Name of Institute	Experts available (included upon approval)	Comments
Availability of institutes with IT expertise for participating in a **network to develop a regional data storage system**	7	FRA_IRD		Additional institutes with partial expertise have stated their availability: SVN-FRI, BGR – IFR
		GRC_HCMR	S. Kavadas	
		GRC_FRI	I. Mantzouni K. Touloumis	
		HRV_IOF	Damir Ivanković Dalibor Jelavić	
		ITA_CNR IRBIM	Rocco De Marco Paolo Scarpini Jacopo Pulcinella	
		ITA_COISPA	Maria Teresa Spedicato Isabella Bitetto Walter Zupa	
		ROU_NIMRD		

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Regional activity	No. of institutes available	Name of Institute	Experts available (included upon approval)	Comments
Availability of institutes with expertise on stomach analysis for providing **training on stomach analysis**	5	ESP_IEO		
		ITA_CIBM	Paolo Sartor Marina Sartini	
		ITA_CNR IRBIM	Elisa Punzo Angela Santelli Alessandra Spagnolo Monica Panfili	
		ITA_UniCa	Antonello Mulas Andrea Bellodi Maria Cristina Follesa	
		HRV_IOF	Damir Medvešek	HRV_IOF partly available
Availability of institutes with expertise on stomach analysis for participating in **task sharing (receiving samples) for stomach analysis**	7	BGR_IFR		Additional available institutes with partial expertise: ROU-NIMRD, SVN-REVIVO (Eva Horvat)
		BGR_IO-BAS	Vesselina Mihneva Kremena Stefanova Elitsa Stefanova Yoana Georgieva Stefania Klayn	
		FRA_IRD		
		HRV_IOF	Damir Medvešek	
		ITA_CIBM	Paolo Sartor Marina Sartini	
		ITA_CNR IRBM	Monica Panfili	
		ITA_UniCa	Antonello Mulas Andrea Bellodi	

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Regional activity	No. of institutes available	Name of Institute	Experts available (included upon approval)	Comments
Availability of institutes with expertise on age reading for **providing training on age reading**	6	FRA_IFREMER GRC_HCMR HRV_IOF ITA_CIBM ITA_CNR IRBIM ITA_COISPA	Information on available experts by species provided separately (upon their approval)	Level of experience of age readers in relevant institutes available in the report (Annex 3)
Availability of institutes with expertise on age reading for **task sharing (receiving calcified structures) for age reading**	10	BGR_IFR BGR_IO-BAS GRC_HCMR HRV_IOF ITA_CIBM ITA_CNR IRBIM ITA_COISPA ITA_UNIMAR ITA_UniCa SVN_REVIVO	Information on available experts by species provided separately (upon their approval)	Level of experience of age readers in relevant institutes available in the report (Annex 3)

	Regional activity Availability of institutes with expertise on age reading for providing training on age reading	Name of Institute	Name of Experts (included upon approval)
Species	Engraulis encrasicolus *Lophius* spp. *Merluccius merluccius* *Mullus barbatus* *Mullus surmuletus* *Sardina pilchardus* *Sparus aurata* *Sprattus sprattus*	FRA_IFREMER	
	Merluccius merluccius *Mullus barbatus* *Mullus surmuletus* *Xiphias gladius*	GRC_HCMR	E. Lefcaditou C. Mytilinaiou G. Tserpes
	Engraulis encrasicolus *Sardina pilchardus*	HRV - IOF	Barbara Zorica Vanja Ćikeš Keć
	Boops boops *Mullus barbatus* Mullus surmuletus other demersal species	ITA – CIBM	Andrea Massaro Andrea Massaro Andrea Massaro Andrea Massaro
	Boops boops *Lophius budegassa* *Merluccius merluccius* *Mullus barbatus* *Mullus surmuletus* *Mustelus mustelus* *Pagellus erythrinus* *Scyliorhinus canicula* *Trachurus trachurus*	ITA - CNR IRBIM (former IAMC)	

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	Regional activity Availability of institutes with expertise on age reading for **providing training on age reading**	Name of Institute	Name of Experts (included upon approval)
Species	*Solea solea*	ITA-CNR IRBIM (former ISMAR)	Fortunata Donato, Sabrina Colella
	Merluccius merluccius		Fortunata Donato, Sabrina Colella
	Mullus barbatus		Monica Panfili, Sabrina Colella, Fortunata Donato
	Engraulis encrasicolus		Monica Panfili, Sabrina Colella, Fortunata Donato
	Sardina pilchardus		Monica Panfili, Sabrina Colella, Fortunata Donato
	Engraulis encrasicolus	ITA – COISPA	Pierluigi Carbonara
	Salrdina pilchardus		Pierluigi Carbonara
	Solea solea		Pierluigi Carbonara
	Merluccius merluccius		Pierluigi Carbonara
	Mullus barbatus		Loredana Casciaro, Pierluigi Carbonara
	Sardinella aurita		Pierluigi Carbonara
	Pagellus erythrinus		Pierluigi Carbonara
	Trachurus trachurus		Loredana Casciaro, Pierluigi Carbonara
	Trachurus mediterraneus		Loredana Casciaro, Pierluigi Carbonara
	Boops boops		Loredana Casciaro, Pierluigi Carbonara
	Spicara smaris		Loredana Casciaro, Pierluigi Carbonara
	Mullus surmuletus		Pierluigi Carbonara
	Scomber spp.		Pierluigi Carbonara
	Trigla lucerna		Pierluigi Carbonara
	Lophius spp.		Pierluigi Carbonara

Regional activity		Name of Institute	Name of Experts (included upon approval)
Availability of institutes with expertise on age reading for **task sharing (receiving calcified structures) for age reading**			
Species	*Scophthalmus maximus* *Sprattus sprattus* shark	BGR - IFR	
	Engraulis encrasicolus *Mullus barbatus* *Sprattus sprattus* *Trachurus mediterraneus* *Scophtalmus maximus/Psetta maxima* *Merlangius merlangus*	BGR - IO-BAS	Yoana Georgieva Violin Raykov, Marina Panayotova, Radoslava Bekova Violin Raykov, Marina Panayotova, Radoslava Bekova Maria Yankova, Joana Georgieva Marina Panayotova, Violin Raykov Marina Panayotova, Radoslava Bekova, Violin Raykov
	Merluccius merluccius *Mullus barbatus* *Mullus surmuletus* *Xiphias gladius*	GRC_HCMR	E. Lefcaditou C. Mytilinaiou G. Tserpes
	Engraulis encrasicolus *Merluccius merluccius* *Mullus barbatus* *Sardina pilchardus*	HRV - IOF	Barbara Zorica Damir Medvešek Damir Medvešek Vanja Čikeš Keć
	wide range of demersal & small pelagics	ITA – CIBM	Andrea Massaro, Alessandro Ligas
	Boops boops *Lophius budegassa* *Merluccius merluccius* *Mullus barbatus* *Mullus surmuletus* *Mustelus mustelus* *Pagellus erythrinus* *Scyliorhinus canicula* *Trachurus trachurus*	ITA - CNR IRBIM (former IAMC)	

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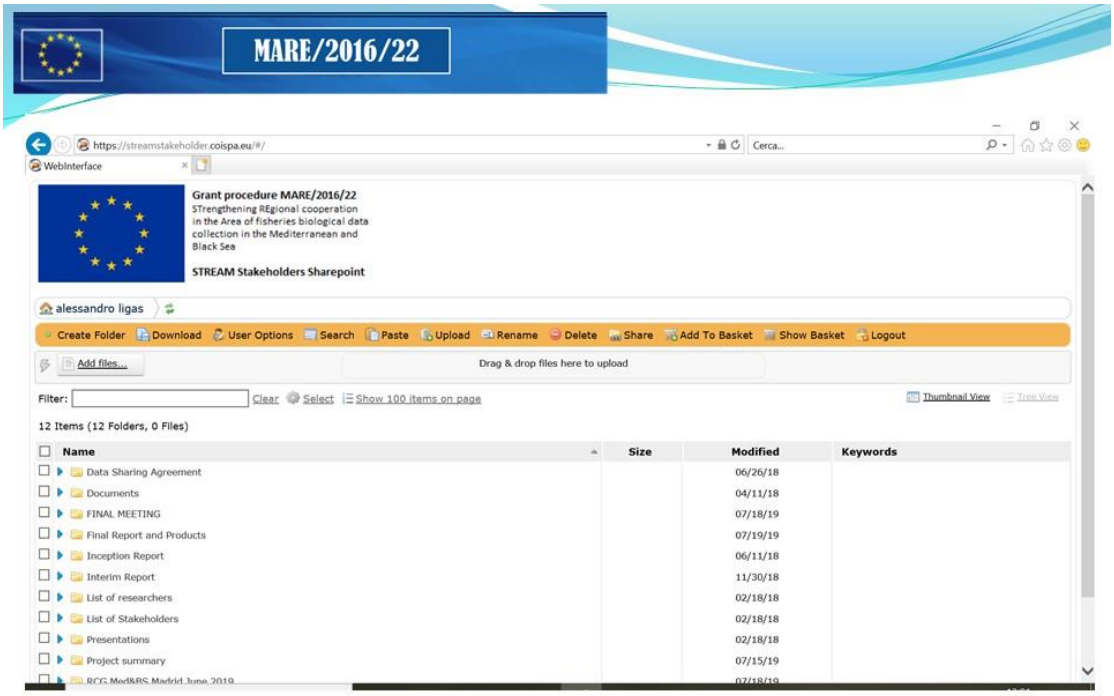
Species	**Regional activity** Availability of institutes with expertise on age reading for **providing training on age reading**	**Name of Institute**	**Name of Experts (included upon approval)**
	Merluccius merluccius *Mullus barbatus* *Solea solea* *Engraulis encrasicolus* *Sardina pichardus*	ITA - CNR IRBIM (former ISMAR)	Monica Panfili, Sabrina Colella, Fortunata Donato Monica Panfili, Sabrina Colella, Fortunata Donato Fortunata Donato, Sabrina Colella Monica Panfili, Sabrina Colella, Fortunata Donato Monica Panfili, Sabrina Colella, Fortunata Donato
	Thunnus thynnus *Xiphias gladius*	ITA - UNIMAR	Sergio Bizzarri Sergio Bizzarri
	Lophius spp *Merluccius merluccius* *Mullus barbatus* *Mullus surmuletus* *Pagellus* spp *Trachurus* spp	ITA - UniCa	Andrea Bellodi Andrea Bellodi Paola Pesci Maria Cristina Follesa Paola Pesci/Andrea Bellodi Antonello Mulas
	Engraulis encrasicolus *Sardina pilchardus*	SVN - REVIVO	Polona Pengal Polona Pengal

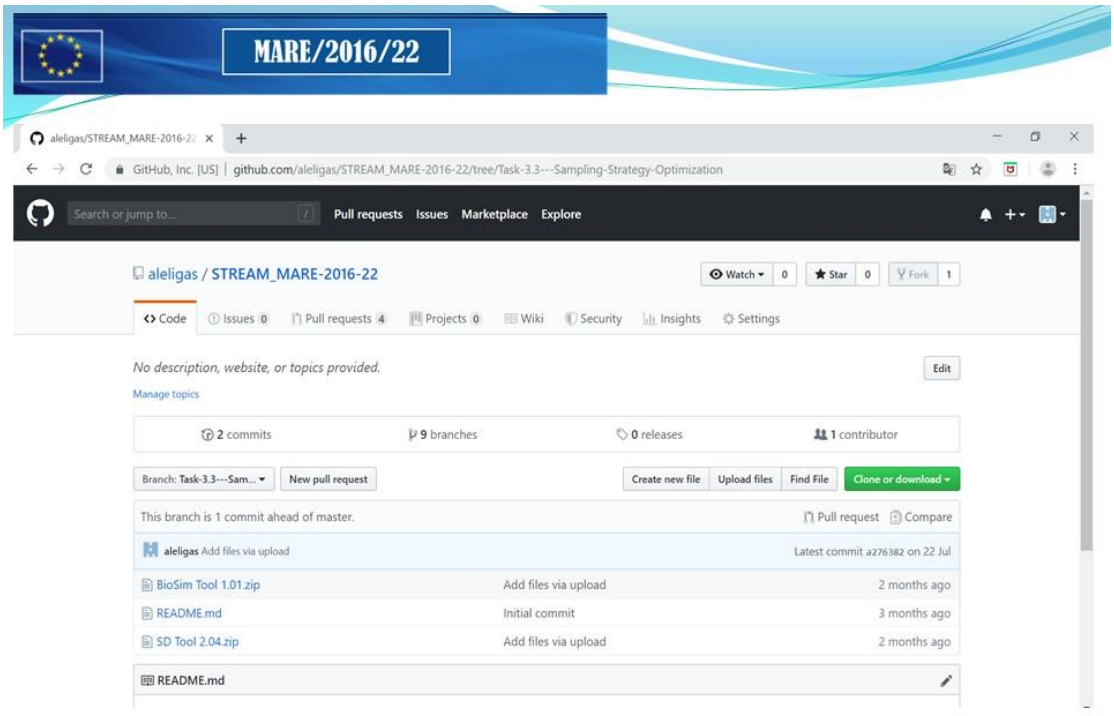
	Regional activity Availability of institutes with expertise on age reading for **providing training on age reading**	Name of Institute	Name of Experts (included upon approval)
Species	*Engraulis encrasicolus*		Loredana Casciaro, Pierluigi Carbonara, Michele Palmisano
	Salrdina pilchardus		Loredana Casciaro, Pierluigi Carbonara, Michele Palmisano
	Solea solea		Loredana Casciaro, Pierluigi Carbonara
	Merluccius merluccius		Loredana Casciaro, Pierluigi Carbonara
	Mullus barbatus		Loredana Casciaro, Pierluigi Carbonara, Michele Palmisano
	Sardinella aurita		Pierluigi Carbonara
	Pagellus erythrinus		Loredana Casciaro, Pierluigi Carbonara
	Trachurus trachurus	ITA - COISPA	Loredana Casciaro, Pierluigi Carbonara
	Trachurus mediterraneus		Loredana Casciaro, Pierluigi Carbonara
	Boops boops		Loredana Casciaro, Pierluigi Carbonara
	Spicara smaris		Loredana Casciaro, Pierluigi Carbonara
	Mullus surmuletus		Loredana Casciaro, Pierluigi Carbonara, Michele Palmisano
	Scomber spp.		Pierluigi Carbonara
	Trigla lucerna		Pierluigi Carbonara
	Lophius spp.		Pierluigi Carbonara

MARE/2016/22

Conclusions

- WP1, WP7 and WP8 have worked in synergy to provide a workplan in terms of workshops, training and actions needed that can streamline RCG Med&BS future initiatives;
- WP2 provided a methodological approach and drafted a list of possible candidate fisheries and stocks for regional sampling;
- WP3 developed R tools to optimize sampling strategies in the implementation of regional work programmes for the collection of biological data in commercial fisheries, estimating costs; it also updated codes and data formats (+ routines to convert data formats) and contributed to the discussion on RDB;
- WP6 provided methodological approaches for data quality checking, and the processing of biological data in line with the objectives of stock assessment;
- WP3 and WP6 cooperated to establish reference and code lists and check data quality and consistency;
- WP4 provided methodological approaches to design:
  - *a sampling program for the collection of data on by-catch of vulnerable species,*
  - *a sampling program to gather data on stomach content of fish,*
  - *and tools for the analysis of co-occurrence and relative abundance of species/stocks;*
- WP5 identified and proposed areas of regional cooperation for SSFs and RFs, and drafted a roadmap to implement data collection;
- WP3 and WP7 have worked in synergy to train MSs experts on the procedures and main outcomes developed in the project.


MARE/2016/22
https://streamstakeholder.coispa.eu/#/
WebInterface
Grant procedure MARE/2016/22
STrengthening REgional cooperation in the Area of fisheries biological data collection in the Mediterranean and Black Sea
STREAM Stakeholders Sharepoint
alessandro ligas
Create Folder
Download
User Options
Search
Paste
Upload
Rename
Delete
Share
Add To Basket
Show Basket
Logout
Add files...
Drag & drop files here to upload
Filter:
Clear
Select
Show 100 items on page
Thumbnail View
Tree View
12 Items (12 Folders, 0 Files)
Name
Size
Modified
Keywords
Data Sharing Agreement 06/26/18
Documents 04/11/18
FINAL MEETING 07/18/19
Final Report and Products 07/19/19
Inception Report 06/11/18
Interim Report 11/30/18
List of researchers 02/18/18
List of Stakeholders 02/18/18
Presentations 02/18/18
Project summary 07/15/19


MARE/2016/22
aleligas/STREAM_MARE-2016-22
GitHub, Inc. [US] | github.com/aleligas/STREAM_MARE-2016-22/tree/Task-3.3---Sampling-Strategy-Optimization
Search or jump to...
Pull requests
Issues
Marketplace
Explore
aleligas / STREAM_MARE-2016-22
Watch 0
Star 0
Fork 1
Code
Issues 0
Pull requests 4
Projects 0
Wiki
Security
Insights
Settings
No description, website, or topics provided.
Edit
Manage topics
2 commits
9 branches
0 releases
1 contributor
Branch: Task-3.3---Sam...
New pull request
Create new file
Upload files
Find File
Clone or download
This branch is 1 commit ahead of master.
Pull request
Compare
aleligas Add files via upload
Latest commit a276382 on 22 Jul
BioSim Tool 1.01.zip Add files via upload 2 months ago
README.md Initial commit 3 months ago
SD Tool 2.04.zip Add files via upload 2 months ago
README.md

TOR 4. Regional plans

Discussion on possibilities for the establishment of regional sampling plan for small pelagic fish in the Adriatic Sea

24 – 26 September, 2019 – Saint Paul's Bay, Malta

Co-funded by the European Union

Identification of fisheries

- STREAM regional grant (MARE/2016/22) identified the most commercially important stocks and fisheries (métiers), beneficial for regional sampling, for which Member States could share sampling tasks using agreed methodologies, ensuring coherent regional data sets with sufficient quality for the end user needs:
  - *Case study 3: sardine and anchovy, PS_SPF and PTB_SPF, GSA 17 and 18*
- Management needs in the area:
  - GFCM/37/2013/1 on a multiannual management plan for fisheries on small pelagic stocks in the GFCM-GSA 17 (Northern Adriatic Sea) and on transitional conservation measures for fisheries on small pelagic stocks in GSA 18 (Southern Adriatic Sea) etc.
  - New MAP from 2021

Objectives:

- Ensure level play in the area, coordinate activities with third countries and FAO AdriaMed and more closely follow management needs, harmonize data collection methodologies for fisheries dependent and fisheries independent information

Recommendations

- Establishement of **WG for the coordination of data collection for small pelagic fish in the Adriatic Sea** (RCG Med&BS WG SPF-AS)
- Establishment of **regional sampling plan for small pelagic fish in the Adriatic Sea** (RSP SPF-AS) from 2021
- Establishment of **regional work plan for small pelagic fish in the Adriatic Sea** (RWP SPF-AS) from 2022
  - RWP SPF-AS would replace or supplement the relevant parts of the national work plans of each of the Member States concerned
- **Participating MS**: Italy, Croatia, Slovenia

WG SPF-AS ToR – Phase 1

- Design and propose a **regional sampling plan for small pelagic fish in the Adriatic Sea for 2021 (RSP SPF-AS)**
- Establish regionally coordinated sampling strategy for small pelagic fish covering fisheries dependent data (commercial fisheries/stocks/métiers) taking advantage of the results of STREAM regional grant and fisheries independent data (MEDIAS) at the level of GSA 17 and 18
- Update on results of STREAM Case study 3 according to latest data
- Establish procedures, methods, quality assurance and quality control for collecting and processing data (utilization of tools developed in the STREAM regional grant)
- Coordinate with GFCM and FAO AdriaMed (Montenegro, Albania) and MEDIAS
- Coordinate data collection and data processing with third countries (Montenegro, Albania)

WG SPF-AS ToR – Phase 2

- Design and propose a draft **regional work plan for small pelagic fish in the Adriatic Sea for 2022 (RWP SPF-AS)** according to Article 9(8) Reg (EU) 2017/1004
- Identify possible solutions for data storage system, processing and analysis of the data at subregional level
- Develop possible cost-sharing arrangements for participation in research surveys at sea
- Carry out the Management Strategies Evaluation

Timeframe

WG SPF-AS:

- Appointment of coordinators by end of October 2019
- Date and place: 16-17 December 2019, IOF Split (Croatia)

RSP & RWP SPF-AS:

- Draft RSP SPF-AS by June 2020
- Draft RWP SPF-AS by June 2021

Regional Coordination Group
North Atlantic
North Sea & Eastern Artic

Regional Coordination Group
Baltic Sea Region

PAN REGIONAL SUBGROUP "DIADROMOUS FISH"

MARIE STOR PAULSON & JON ELSON

GHENT, 3-6TH JUNE 2019

KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

2019 tasks:

1. Develop regional sampling/work plans for diadromous fish and quality assurance of data
2. Make recommendations on i) how to address any fisheries and fishery-independent data transmission issues reported by the end-users and ii) the revision of the EU MAP based on end-user requirements

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KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

1.1 Identify what regional work/sampling plans are intended to contain and achieve, and how they can be beneficial to the Member States (MS) in terms of eels, salmon and sea trout (ToRs developed by Baltic RCG 2017)

- Completed: overviews fisheries, sampling programmes, data collection & data needs for ICES AWGs (see DSG report)
- Issue: data collection not shared between MS, difficult to agree details for regional plans. But coordination is possible and being implemented. QA is where we can possibly do the most useful work.
- In Baltic potential issues with cost sharing between countries with few, and countries with many rivers
- Conclusion: DSG keeps working on regional sampling plans, dependent on FishPi2 (and Med equivalent) outcomes

Regional Coordination Group Baltic Sea Region

Regional Coordination Group North Atlantic North Sea & Eastern Artic

KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

1.2 Make recommendations on fisheries and fishery-independent data needs for regional work/sampling plans, considering the tables of data needs drafted by RCGs 2018 and then updated by ICES expert working groups

- Some data requested in EU-MAP currently not used in ICES stock assessment and therefore not collected by some countries, other data is not requested by EU-MAP but is used in assessments (see DSG report):
  - *A future data collection programme, as flexible as possible where data collection can be included or omitted (depending on end user needs) following discussions/decisions in the DSG/RCG, would be desirable*
- Work plans should follow recommendations of the WKESDCF report 2012 and make use of index catchments and standardised sampling methods
- A pilot study is required to identify a standardised method for the collection of catch and biological data on recreational fishing for eel, both retained and released

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KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

1.3 Support the ICES WGs in determining the effect of fisheries and fishery-independent data quality issues on their assessments, and make recommendations for addressing issues via the regional work/sampling plans

- Data on recreational catches (in marine and freshwater) are typically uncertain and work to improve data collection and estimation procedures is needed.
- Levels of mis- and unreporting are to a large extent unknown, esp. in salmon and sea trout in the Baltic. Unclear how it affects assessment results and advice about fishing possibilities.

  Proposed: i) Reliable data on species composition in catches from the offshore and coastal fisheries where substantial misreporting is suspected to take place should be made available to the EGs, ii) a more comprehensive control program of the sea fishery
- Evaluate and potentially increase electrofishing programs in some rivers due to spatially expanding populations
- Collection of sea trout parr densities from typical trout streams all Baltic Sea riparian countries
- Standardisation of reporting eel stock indicators in future to limit potential variability
- Establishment of eel Data Quality Assurance System
- Establish methods to quantify effect of 'data quality' on the international eel and salmonid assessments

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KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

1.4 Work with the end-users and the RDBES steering group and developers to make best use of the RDBES for developing and implementing regional work/sampling plans.

- Commercial landings and effort for Baltic salmon and sea trout (currently in InterCatch) should be possible to upload to RDBES
- Biological sampling data from Baltic salmon and sea trout catches should be possible to upload to RDBES (currently in RDB FishFrame)
- Questions remain how recreational catch statistics should be included in RDBES.
- Not clear whether biological monitoring data from rivers and lagoons (electrofishing data, juvenile and adult counts, etc) will be possible to fit to RDBES structure in the future.
- Completing development of the specific Eel DB is a high priority and should be pursued within the next couple of WGEEL meetings, and WGNAS is examining salmon DB possibilities

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KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

1.5 Define the rivers to be monitored for eel and salmon at regional level.

- The seven selected Baltic Sea Index Rivers cover all salmon assessment units, and this selection is judged to be sufficient for the WGBAST to perform analyses and provide stock advice.
- Salmon abundance data (mainly parr densities derived from electrofishing, but also smolt counting in a few cases) from non index rivers are also necessary for ICES stock assessment and advice.
- Sea trout index rivers in the Baltic should be established to fulfil assessment requirements with respect to geographical coverage and data collection needs.
- Member States should provide their list of eel index rivers or habitats and describe their selection process.

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KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

2.1 Make recommendations on how to address any fisheries and fishery-independent data transmission issues reported by the end-users.

(Review reports from Working Groups, ICES Advice, European Commission, etc on data transmission issues, and make recommendations to address these)

- Data calls are new to diadromous fish and ICES is still developing information on transmission issues
- The content of different data calls relevant to eels and salmon must be checked for inconsistencies and a method developed to standardise and optimise data calls in the future, including the eel stock coordinator made aware of all data calls that feature eels

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KEY POINTS FROM DIADROMOUS FISH SUB GROUP (DSG)

2.2 Make recommendations for the revision of the EU MAP based on end-user requirements.

- DSG made recommendations at the subgroup EU MAP reform meeting in Ghent in May 2019
- What is the process for continuing to take part in the revision of EU MAP?

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Regional Coordination Group North Atlantic North Sea & Eastern Artic

OUTCOMES – IMPACT ON RCG IMPORTANT FOR RCG TO DISCUSS

- How to tackle the potential issues with cost sharing between countries with few and countries with many rivers in Baltic
- Consider diadromous fish for future FishPi-type projects
- Is it possible to make data available on species composition in catches from the offshore and coastal fisheries where substantial misreporting is suspected to take place in the Baltic?
- DSG would like to know what the formal process is for engaging end-users (i.e. ICES EGs) through ICES.
- DSG would like to know what the formal process is for engaging MS
- What is the decision making process for RCGs, NC, etc?
- Which rules and procedures does the DSG work to?

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IDENTIFY WHAT TO BE DECIDED IN NC MEETING

- How do we ask MS to define their Index river selection procedures
- Who sets the tasks for the DSG for 2020?

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SUGGESTIONS FOR NEXT STEP IN INTERSSIONAL WORK (TASKS)

1. DSG to keep working on regional sampling plans, dependent on FishPi2 outcomes
2. Work towards a pilot study to identify a standardised method for the collection of catch and biological data on recreational fishing for eel, both retained and released
3. Investigate (effects of) levels of mis- and unreporting of diadromous fish in fisheries
4. Work with end-users on issues such as evaluation of electrofishing programmes for salmon and establishment of Data Quality Assurance Systems for diadromous fish.
5. Work with the end-users and the RDBES steering group and developers to make best use of the RDBES
6. Continue work with end users on selection of index rivers for eel, and sea trout (Baltic)
7. Keep abreast of Data Calls for diadromous fish
8. Consider the collection of economic data of migratory species in freshwater

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Baltic Sea Region

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Report of 12th meeting for MEDiterranean International Acoustic Surveys (MEDIAS)

in the framework of European Data Collection Framework (DCF)
Athens, Greece, 9-11 April 2019
Steering Committee Report

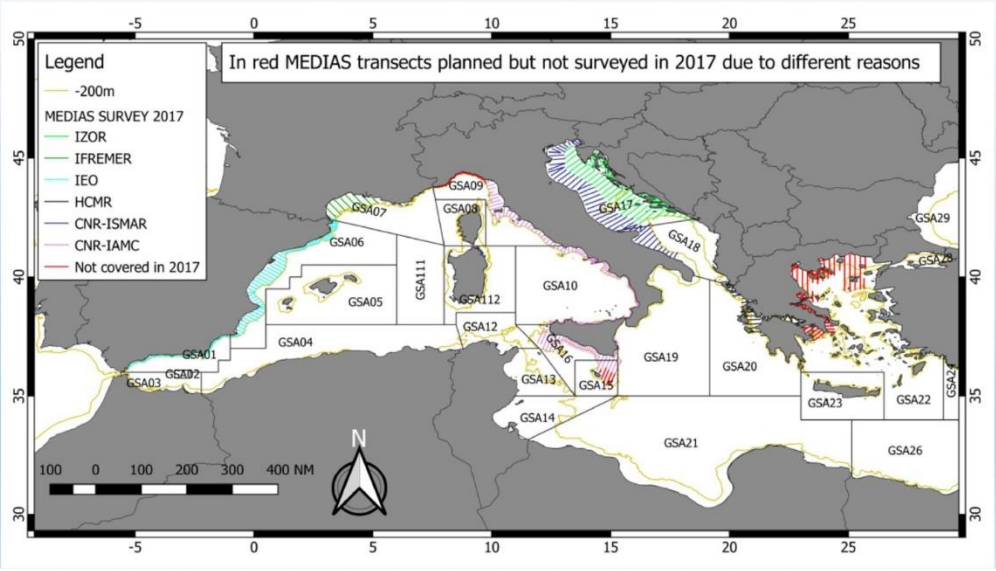
presented by: dr. Vjekoslav Tičina, (MEDIAS chair, contact: ticina@izor.hr)

RCG Med & BS 2019, Qawra, Malta (24-26 September 2019)

Introduction

- Principal aim of the MEDIAS Steering Committee (SC) is to harmonize, as much as possible, ongoing acoustic surveys in the Mediterranean: Gulf of Lion **(IFREMER)**, Iberian Coast (**IEO**), Sicilian Channel, Tyrrhenian Sea, Ligurian Sea (**CNR-IAS** and **MSDEC-DFA**), Adriatic Sea (**CNR-IRBIM**, **IOF** and **FRIS**), and Aegean and eastern Ionian Sea (**HCMR**)
- 12th MEDIAS Steering Committee meeting was in Athens, Greece (9-11 April 2019) hosted by HCMR and chaired by Andrea De Felice from CNR-IRBIM (via skype);
- Meeting participants were experts from the EU countries involved in acoustic and pelagic trawl surveys in the Mediterranean and Black Sea (Slovenia, Spain, Croatia, Italy, Greece, France, Romania and Bulgaria) and from non-EU countries (Turkey);
- In the Mediterranean Sea, acoustic surveys have been carried out in GSAs 1, 6, 7, 9, 10, 15, 16, 17, 18, 20 and 22, covering shelf areas (i.e. up to 200m depth)

Map of EU Mediterranean Acoustic Surveys in 2018 (year in the map to be corrected)



The main aims of the meeting were:

- to present the results from the MEDiterranean International Acoustic Surveys (MEDIAS) carried out in 2018;
- to coordinate the MEDIAS surveys to be performed in 2019;
- to improve and update the common Protocol for the MEDIAS that is incorporated in the new DCF (2017/1004) framework and reflected in the MEDIAS Handbook;
- to revise the ToRs from 2019 and to establish the ToRs for 2020.

In addition, Steering Committee discussed issues related to revision of EU Decision Support Tool (DST) tables eventually used in STECF EWG meeting on surveys evaluation, and progress on R scripts

Results obtained in 2018 were presented by:

- Spain: Iberian acoustic survey MEDIAS 2018 (GSA 1 & GSA 6)
- France: Gulf of Lion acoustic survey (GSA 7)
- Italy: Acoustic survey on small pelagics (GSA 9 and GSA 10)
- Italy: Acoustic survey in South of Sicily (GSA 16 and MLT waters in GSA 15*); * - *funded by ITA-MLT Interreg Programe*
- Italy: Acoustic survey in the Adriatic (western part of GSA 17 + SVN waters & West GSA 18)
- Croatia: Acoustic survey in the Eastern Adriatic (eastern part of GSA 17)
- Greece: Acoustic survey in the Eastern Ionian Sea (GSA 20)
- Bulgaria: Pelagic trawl surveys in Bulgarian marine area (GSA 29)
- Romania: Pelagic surveys at the Romanian Black Sea Coast (GSA 29)
- GFCM-Turkey: Acoustic surveys within framework of BlackSea4Fish Project

For details, see report available at:
https://drive.google.com/open?id=1VIlfy4bzLbzf_4fjy2TRBIVhCQBvBqto)

Discussion on issues related to EU Decision Support tools (DST) tables - International coordination by MEDIAS Steering Committee

- Survey designs based on common geostatistical analysis (made in the ambit of AcousMed project)
- Common target species in all acoustic surveys;
- Common TS equations for sardine (except in GSA 7); common TS for anchovy - work in progress;
- Common sampling time for acoustic data - day time only;
- Common agreement on oceanographic data collection (CTD);
- Common acoustic sampling frequency for the assessment (38kHz);
- Common survey season (June-September) agreed;
- Agreed standardized otolith reading criteria for age estimation of target species, based on ICES WKARA2 2016 outcomes;
- Agreed common maturity stage determination criteria, based on the ICES WKSPMAT 2009 report;
- Production of common studies and scientific papers at Mediterranean Sea level;
- Joint Session every two years with ICES WGACEGG in order to share survey's experience

Other issues disscused by MEDIAS SC

- Data accessibility
- Possible future improvements in MEDIAS surveys;
- MEDIAS expansion in GSA 11 and GSA 19;
- Biomass estimation and relative CV calculation with EchoR script;
- Joint session of ICES WGACEGG and MEDIAS;
- Contributions for the MEDIAS Special Issue 2020 on Mediterranean Marine Science journal;
- Intercalibration exercicse on anchovy otolith reading made by experts working in Mediterranean Sea and Atlantic ocean (ICES);
- Handbook updates (http://www.medias-project.eu/medias/website/handbooks-menu.html).

Remarks from 12th MEDIAS Steering Committee (SC) meeting:

- **The MEDIAS Steering Committee pointed out that conditions to carry out survey's activities are sometimes problematic in terms of:**

- Bureaucracy at MS level (e.g. authority response times, signed contracts, timely funding, etc.);
- In general, very limited resources are available (in particular the research vessels and skilled personnel); SC pointed out that MEDIAS can be carried out with a few adequately equipped vessels only. Such vessels currently are non available within the Mediterranean commercial vessel fleet, as it might be the case for MEDITS;

More specifically, Croatia has been repeatedly reporting different logistic constraints related to:

a) survey vessel *(i.e. very low financial resources available per vessel day*),
b) lack of formally nominated MS scientist responsible for MEDIAS in Croatia, since 2017,
c) and heavy workload *(see Report page 63: 13,578 nm^2 - the largest survey area to be covered in 30 days only!)* in relation to overall resources available (no. vessel days, skilled personnel, salaries)

- *My question: Research vessel's mobility among MS - administrative basis?*

These problems, if not resolved, are likely to prevent a satisfactory conduction of the survey's activities in some Member States (i.e. delays or working in bad conditions).

Conclusions and decisions of the MEDIAS Steering Committee (SC)

- SC acknowledged **results of the acoustic surveys** carried out in 2018 as presented by participants of all the countries working in the Mediterranean Sea: Spain, Greece, Italy, France, Slovenia and Croatia, as well as results from the surveys carried out by Romania, Bulgaria and Turkey in the Black Sea;
- **EchoR** - SC decided to continue efforts to translate workflows adopted by MEDIAS groups into the software developed by IFREMER;
- **CV estimation** - SC adopted the R script developed by Marco Barra for CV estimation based on geostatistics;
- **MEDIAS proposals** – SC agreed to continue submitting its proposals at RCG meetings, but also evaluate possibilities to proceed with these proposals as specific EU projects at various levels or under the umbrella of GFCM; Proposals are:

a) MEDIAS group is proposing the building of a **common database** through a specific project, based on the past decisions concerning the common format of the database;

b) **Intercalibration exercise** among the MEDIAS groups to be conducted at a unique location with all the research vessels and equipment in use during MEDIAS surveys;

c) MEDIAS group proposes also the introduction of a **plankton monitoring** activity synoptically with MEDIAS acoustic surveys to be added to the DCF to improve the knowledge useful for acoustic signals discrimination and to improve ecosystem knowledge.

- Scientific publications in **Special Issue of MMS** – experts to prepare the articles by January 2020;
- MEDIAS Website – SC decided to prepare **standardized maps** of fish spatial distributions, following examples from ICES WGACEGG;
- MEDIAS **Handbook** – to update (last version available in Annex IV of the 12th SC meeting Report)

Proposed ToRs for 2020

General issues:

- to join and harmonize the ongoing acoustic surveys in the Mediterranean Sea and Black Sea;
- to provide information for management decisions;
- to provide input for stock assessment purposes concerning the stocks which are managed internationally;
- to provide information for Good Environmental Status in the MSFD.

Specific issues:

- Update MEDIAS handbook;
- Update the MEDIAS Website;
- Update the common work on the Special Issue in Mediterranean Marine Science foreseen for 2020;
- Work on geostatistical scripts to produce standardized NASC maps at the Mediterranean scale;
- Work/Update on EchoR adaptation.

REGIONAL COORDINATION GROUP FOR THE MEDITERRANEAN & BLACK SEA

TOR 4. Regional plans

Discussion on possibilities for the establishment of regional sampling plan for small pelagic fish in the Adriatic Sea

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- Coordinate data collection and data processing with third countries (Montenegro, Albania)

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RSP & RWP SPF-AS:

- Draft RSP SPF-AS by June 2020
- Draft RWP SPF-AS by June 2021

