

**Report of the
Regional Co-ordination Group
for the North Atlantic
(RCG NA)
Annual Meeting**

2017

Marine Institute

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1 Introduction

1.1 General

The RCG NA was established on the 4th of September 2017 and held its first annual meeting at the Marine Institute in County Galway (Ireland) 04-08 September. Participants included experts and National Correspondents from Germany, Ireland, the Netherlands, Portugal, Spain and the United Kingdom as well as DG MARE (Commission) and ICES representatives. National correspondents from France and Belgium participated by remote access and correspondence.

The meeting was chaired by Leonie O'Dowd and Jon Elson. There were 4 main subgroups covering a) Regional sampling design, b) End user needs and Data quality, c) Research surveys and cost sharing, and the d) the Landing obligation. Jose Rodriguez, Estanis Mugerza, Alastair Pout, Mat Lundy and Helen McCormack led and reported on these subgroups. Another breakaway group was formed of the National Correspondents to finalise draft Rules on Procedures. Some sessional work was carried out by the whole group and all subgroup and breakaway work was presented and endorsed in plenary.

RCG NA thanks the Marine institute for hosting the meeting, the excellent facilities offered were much appreciated. RCG NA wishes to thank ICES for hosting and organizing the SharePoint and for their support and contribution at the meeting.

1.2 Background and legal requirements.

Since regulation 199/2008, the coordination of the data collection under the DCF has been carried out at a regional level and specific Regional Coordination Meetings (RCMs) were responsible for facilitating this with the aim of identify areas for standardisation, collaboration and task sharing between MS. RCMs were held annually and involved participants from each MS involved in the DCF.

Five RCMs were operative:

- the **Baltic Sea** (ICES areas III b_d),
- the **North Sea** (ICES areas IIIa, IV and VIId), the **Eastern Arctic** (ICES areas I and II), the ICES divisions Va, XII & XIV and the NAFO areas.
- the **North Atlantic** (ICES areas V-X, excluding Va and VIId),
- the **Mediterranean Sea** and Black Sea and Large Pelagic
- the **Long Distance Fisheries**: regions where fisheries are operated by Community vessels and managed by Regional Fisheries Management Organisation's (RFMO) to which the Community is contracting party or observer.

The regional split over 5 regions allowed for coordination while taking into account regional aspects and specific problems.

The "Ostende Declaration" penned at the RCM NSEA 2012 introduced the concept of expanding from a 4 day annual RCM to a more continuous process coordinated by a Regional Coordination Group - engaging with end users.

It was recognised then that RCMs had to progress from meeting annually and attempting to ...

- review what MS had done

- standardise processes
- assess the quality of what was done
- propose improvements and endorse recommendations

Since 2016 RCMs had been evolving into working Groups - advocating and progressing intersessional work looking at cost sharing of surveys, end users needs, data quality and the landing obligation.

The re-cast of Council Regulation (EC) No 199/2008 regulation formalised the process and the transition from Regional Coordination Meetings to Regional Coordination Groups.

Council Regulation (EC) No 2017/ 1004

(26) *In view of the objective of the Common Fisheries Policy to give more responsibility to Member States and to better involve end-users **of scientific data** in data collection, regional coordination should be **strengthened and expanded** from one single meeting into a continuous process coordinated by Regional Coordination Groups for each marine region **and should aim to cooperate with relevant stakeholders including third countries.***

RCGs are mentioned 21 times in the recast with the aims and tasks listed in paragraphs 15 – 27 and the “how” RCGs are to achieve these tasks is spelled out in in Article 9. End-users are considered the drivers for the data collection and are mentioned 27 times.

Article 9 Regional cooperation

RCGs...

- shall aim at developing and implementing procedures, methods, quality assurance and quality control for collecting and processing data
- shall aim at developing and implementing regional data bases
- shall consist of experts nominated by MS including NCs, and the Comm.
- shall draw up and agree on Rules on Procedures for their activities
- shall coordinate with each other and with the Commission
- shall invite end-users of scientific data, regional fisheries management organisations, Advisory Councils, and third countries as observers, where needed.
- may draft regional work plans
- shall submit any draft regional work plan to the Commission before 31 October.

The Commission...

- may adopt a work plan after evaluation by STECF using an implementing act.
- may adopt implementing acts
 - for rules on procedures
 - cost-sharing arrangements for the participation in research surveys at sea
 - the area of marine region
 - format and timetables for the submission and approval of regional work plans

A regional work plan...

- shall replace, or supplement the relevant parts of the national work plans of each of the Member State concerned

1.2.1 Summary aims of the RCGs

- to improve quality of the data that form the basis for advice

- to improve the effectiveness and efficiency of its collection through
 - the cooperation of Member states
 - through consultation with end users, stakeholders and third countries at a regional and supra regional level.
- to develop, draft, submit and implement Regional Work Plans

2 Executive Summary

The 1st Annual Meeting of the RCG North Atlantic (RCG NA) was held at the Marine Institute in County Galway (Ireland) 04-08 September 2017. With the recast of the Data Collection Framework published June/July 2017 this meeting marked the transition from an Annual Meeting to the establishment of a Regional Coordination Group from the North Atlantic. The role is still to coordinate the National Work Programmes (NWP) of the Member States with fisheries in the North Atlantic region but with further scope of developing, implementing and maintaining Regional Work Plans. Establishing a governance model and developing a road map to meet the aims of the RCG was started through reviewing the progress made over the year and planning the Regional and Supra regional work required for 2018. Agreeing rules on procedures for the RCG NA; progressing the development of regional sampling plans and establishing criteria to test designs; improving communication with end-users and experts and cost sharing agreements; and the tools required to ultimately satisfy end user needs all formed the core of the discussions. Some analysis of the data uploaded to RDB demonstrated the limits of the RDB data but also how it could be used to review achievements, the quality, coverage and impact of current sampling levels relative to commercial landings and effort with a focus on potential quality indicators. The impact of the landing obligation on scientific sampling schemes was also reviewed. The participation of National Correspondents and the Commission and ICES as an end-user made it possible to consider these aspects at all levels, but for practical reasons, two MS (France and Belgium) were only able to attend by Weblink.

Governance for Regional Coordination Groups (RCG): rules on procedures; developing regional sampling plans; communication; end user needs; task sharing agreements; and intersessional work.

The terms of reference were the same across all Regions so rather than work independently in 2017, RCMs actively shared their ideas in relation to the pan regional issues intersessionally. Following the recommendations from 2016, pan-regional groups were formed and through correspondence, skype meetings and (physical) intersessional meetings – Rules on Procedures (RoPs) were drafted and agreed; Survey Cost Sharing Models were agreed; and improved procedures for communications and data quality were agreed with ICES. A large Data Group was also established and an ICES sharepoint with limited access setup to allow the development and sharing of R-Tools for analysing and exploring the RDB data.

Intersessionally Rules on procedures had been circulated amongst a sub-group of representatives from the three Northern RCGs (Baltic, NSEA and NA, MED/BS and new RCG Large pelagic). The agreed draft was then circulated amongst NCs for comment and edits and general agreement on a final draft was sought. This final draft was presented to the RCG NA 2017 and reviewed in plenary but it stalled at the first paragraph. So to progress during the meeting, a subgroup of NCs was tasked with taking the key elements that could be more easily agreed and creating an RoP draft that could be agreed by

the close of the meeting. The pan regional intersessional subgroup on Research Surveys drafted a Cost Sharing Agreement for Blue whiting based on a model agreed intersessionally and considered how these agreements might form an obligation to MS. These cost sharing models could be considered alongside other task sharing or means of reallocating sampling effort which may be required based on design and analysis of regional commercial catch sampling plans. The RCG NA Regional Sampling Subgroup thoroughly reviewed intersessional and ongoing work looking at optimising sampling, cost benefit analysis and regional sampling design. The group identified a need to develop and agree on quantitative objectives before schemes are designed including the metrics required to measure the performance of different designs. Statistical tests need to be developed that can properly evaluate schemes using the limited data already available through the current data exchange agreements for the RDB. The RDB continues to be key for any progress in evaluating national sampling plans and implementing and monitoring any regional sampling plans. The RCG NA End-User and Data subgroup provided an example of the current R-tools developed to review the data. The sub group also demonstrated how the RDB might be used as a tool to help with the cycle of Annual reporting and STECF evaluation of National and ultimately Regional Catch Sampling Plans. The automation of some of the tables in the NWP was also considered in relation to the R code already developed to populate table 1A. A review of the AWP submissions and the R code results for table 1A revealed most of the issues relate to species and stock nomenclature and their not being a consistent reference list available. The development strategy for the RDB submitted by the SC-RDB was reviewed in plenary. Concerns were raised about the lack of communication and limited consultation about recent developments. To improve on this the RCG NA agreed to be more proactive in supporting and maintaining their representation on the steering committee.

Throughout 2017 the RCG Chairs across all regions kept up a dialogue through Web meetings and e-mails improving consistency and communication. Intersessional work included an enduser meeting with ICES to improve on procedures communicating data needs. The RCG End-User and Data subgroup included ICES as an End user and the group reviewed enduser interactions and considered encouraging the involvement of other bodies/RFMOs and EGs defined as endusers by the regulation.

The subgroup for Salmon and Eels met at the Baltic RCG which ran concurrently with the RCG NA. The chairs from both RCGs kept in touch during the meeting and the subgroup was able to present their progress to RCG NA plenary by Weblink. Their key task was to define their terms of reference and procedures for pan-regional coordination of data collection for these species.

The 2017 RCGs benefited from the intersessional effort carried out by representatives from MS and to maintain this progress RCG NA recommends the continuation of intersessional sub-groups particularly those addressing End-User and Data needs; the landing obligation and sub-groups on Regional Sampling and RDB Data analysis.

Landing obligation, Data calls, Upload logs and data analysis.

RCG NA continued with their annual review of the phased introduction of the landing obligation and the impact on sampling and data quality, reviewing any changes in sampling procedures and landing practices. A joint data call was launched in June by the chairs of the RCG NA, RCG Baltic and RCG NS&EA. MS were requested to upload data for 2016 in the regional database (RDB Fishframe) hosted by ICES. For the first time, all MS complied with this request for the landings and effort data. For the sample data all MS except France uploaded data for 2016. The RCG was unable to review the Upload

logs but it is accepted that based on previous analyses and the pace of development of the RDB that not all data collected is uploaded for technical reasons. The ICES evaluation of the data on the RDB revealed consistency for most MS in their annual number of species in landings; species in sample data and catch and effort data.

New co-chair and next meeting.

In 2014 RCM NA decided to run to a co-chairs system to account for the additional intersessional work expected under the recast framework regulation. With no candidate available to replace Jon Elson after a two year term, Jon agreed to stay on for one more year to co-chair with Leonie O'Dowd for 2018.

The 2018 meeting will be held in Vigo, Spain.

3 Main points of the meeting

The 1st RCG North Atlantic Annual Meeting was held at the Marine Institute in County Galway (Ireland) 04-08 September 2017. 29 participants from 8 member states, DG MARE (Commission) and ICES attended the meeting. MS participants included representatives from marine institutes and National Correspondents. The meeting was chaired by Jon Elson and Leonie O'Dowd and the list of participants and realised agenda are available in **Annex 1**.

Prior to the meeting the generic terms of reference were drafted jointly by all the Northern RCM chairs and although in preparation they were edited by the respective chairs they effectively remained the same across all the Northern RCMs. The RCGs continue to actively share their ideas in relation to the pan regional issues and in preparation for this round of meetings the Chairs agreed to form a pan regional sub group covering Catadromous and Anadromous species which would only meet at one RCGM and report remotely to the other RCGMs in plenary. For 2017 the sub group would meet at the Baltic RCGM and report to the North Atlantic RCGM which was running in parallel. This sub-group work is summarised in Section 3.2.5 of this report.

Following the Terms of Reference, the first part of the meeting consisted of presentations and discussions around all the progress since 2016 (see Section 3.1) and the second part of the meeting used these results and references to develop these ideas and plan for further work (Section 3.2.5).

3.1 Progress since 2016

Progress since 2016 was reviewed in plenary in relation to the recommendations of the 13th Liason Meeting of October 2016 (**Annex 2**). Presentations were made in plenary of the results of expert groups and workshops pertinent to the regional coordination of data collection. These included RCGCHAIRS, PGDATA, WGCATCH, WGBIOP and WKBIOPTIM. WKBIOPTIM presented first steps looking at methods and tools that might be used for optimising sampling. RCG NA supports the need to continue with these workshops and encourages WGCATCH and WGBIOP to propose a second WKBIOPTIM.

Executive summaries and relevant points have been reproduced in Annex 3. The work of WGRFS was also reviewed in a general presentation to the group on Monitoring recreational fisheries under the DCF and that is also summarised in **Annex 3**.

3.1.1 Feedback from the commission on DCF and STECF

Venetia Kostopolous from the Commission presented the status of EUMAP and the outcomes from STECF, this is summarised in **Annex 3**. The recast regulation 2017/1014 was published in May 2017 and it provides clear expectation of RCGs. The commission expects RoPs to be agreed by each RCG by the Liason meeting in October 2017 but is flexible on whether generic or regional specific RoPs are adopted. The results of the STECF evaluation of the 2016 Annual reports and a summary of the STECF evaluation of AWP plans for 2017 were also presented. The commission expects most MSs to resubmit their AWP plans in October 2017 based on those results. The STECF **EWG 17-04** on Quality Assurance for DCF data summarised relevant existing work and references, suggested improvements to the WP tables and acknowledged that there was a limit to what evaluation of Quality STECF could do within the format of the AWP alone. Two adhoc STECF EWGs scheduled for October were introduced. The aims of these were to draft templates for the Annual Reports based on the AWP and to consider what automation could be considered to help with the submission and evaluation process.

3.1.2 Intersessional sub-group work

Throughout 2017 RCM Chairs kept up a dialogue through Web meetings and e-mails improving consistency and communication between regions. Intersessional work is required to progress Regional coordination but with limited resources it makes sense that common issues are addressed in pan-regional intersessional sub-groups. Following recommendations from 2016 pan-regional groups were formed addressing Rules on procedures; Survey cost sharing; analysis of RDB Data, and dialogue with End-Users. Through correspondence, skype meetings and (physical) intersessional meetings, generic Rules on Procedures (RoPs) were drafted and agreed; a generic survey Cost Sharing Model was agreed and the implications on regional surveys explored. Improved procedures for communications and data quality were agreed with ICES. A pan regional Data Group was also established and an ICES sharepoint setup with limited access to allow the development and sharing of R-Tools for analysing and exploring the RDB data. Summaries, minutes and outputs of these specific groups are presented in Annex 6.

3.1.3 ICES as an enduser, Data calls , SC-RDB and Databases

ICES continues to be key in the regional development and coordination of regional sampling plans they support the Northern RCGs offering administrative support and play a key role in maintaining and developing the RCG databases. ICES is also the main enduser for the data collected under the DCF and there is an obvious benefit in helping coordinate regional sampling plans and maintaining and improving data collection and quality pan-regionally.

At the annual meeting of the RCG NA, ICES reported on the data transmission and success of the RCG data call (**Annex 4**). All MS uploaded catch and effort data for 2016. The overview provides insight into the consistency of the data since 2009 and indicates some technical issues with this years uploads.

ICES gave an overview of data needs for 2018. Developments in terms of the setting up of data calls and data transmission through the Stock Information Database (SID) facilitating a more streamlined process were presented. A presentation on the role of ICES ecosystem observation steering group (EOSG) was also presented. Both presentations invoked discussion and these are summarised in the sub-sections below.

3.1.3.1 *Data calls*

The RCG NA believes that MS knowledge of the data, their specificities and limitations would contribute to more efficient data calls; asking for data by stock and not by 'species and area' was challenged as the stock definition for some stocks were not straight forward (e.g. for anglerfish). The information on how the data is collected (including sampling unit etc.) was perceived as being important but missing from the data calls. It would inform on how the data may be raised to metiers for instance. Information on what data has been collected is readily extracted from the RDB as it stands and can provide suggestion as to how to harmonise outputs with the required resolution of the data needed by ICES (for further details please see Section 3.2.3). The RCG NA added that the following points could be useful improvements to the current data call:

- The text for some of the larger data calls appears to be somewhat ambiguous in terms of 'normal' data call and 'mixed fish' data call contents. It would be useful to re-evaluate the clarity of these two different needs in the text for the data call.
- Updates or changes to recurrent data calls need to be flagged in the associated letter to data providers, so they are better alerted to adjustments they need to make to meet the requirements of the end users.
- Deadlines for data calls that coincide with National holidays or Weekends should be avoided; this should be checked prior to issuing.
- In terms of submission of data to Accessions possible options for alerting relevant stock coordinators were discussed, and more importantly, the file-structure of the Accessions Share Point was pointed out as being unmanageable.

It was concluded that most of this feedback should be conveyed, together with more specific feedback to particular data calls, to ICES Secretariat. A meeting between stock coordinators and ICES Data Centre could potentially serve to unify the set-up of the submission part of the data calls.

3.1.3.2 *Stock Information Database (SID; previously known as the Stock List Database)*

Using SID as a repository for the data needs for each of the stocks was welcomed by the RCG NA; the prospects of a more automatized set-up of data needs as input to the coming data calls would facilitate updates making it easier to use than the cumbersome spreadsheets. This was seen as a good way forward to more efficient and streamlined data calls. The ability for data providers to access and download upcoming data needs immediately after the end of a working group or a benchmark workshop was appreciated. This will allow the data submitters to get advance access to what data will be required in the data call and also provide the possibility to flag issues e.g. like requesting data that is not collected due to no fishery or quota. In terms of data transmission failures and their reporting, this pre-screening by data providers will potentially greatly reduce the non-transmission failures, which currently are marked as failures. The current format of the SID is available through the following link, but is under development to include data requirements for assessment & advice: <http://stockdatabase.ices.dk/Default.aspx>

3.1.3.3 *ICES EOSG*

The ICES ecosystem observation steering group (EOSG) represents the WGs that, under the auspices of ICES, coordinate the data collection as part of the DCF. These groups serve as data providers and coordinators of sampling activity that feed into the science and advisory processes. Based on standardised methodology the provision of data has historically been largely a linear process. More recently, as technical, regional and ecological process considerations have attained a greater

significance in the monitoring process for advisory purposes, greater interconnectivity and dependence between the individual monitoring tasks have become apparent. Consequently, there is a need to identify and quantify these interrelationships. EOSG representing the overlap between monitoring and the advisory process is ideally placed to facilitate the transition and manage the effectiveness and efficiency of the monitoring program.

Discussions between chairs representing monitoring and analytical groups within the SG indicate that improved communication between data providers and data users is necessary and desired. The multiple demands on monitoring resources means that there is a need to quantitatively prioritise the objectives rather than simply providing a list of monitoring requirements. ICES aims to develop the necessary prioritisation through the interaction between the EOSG and the Integrated Ecosystem Assessment Steering Group (IEASG). To accelerate the process additional resources are needed to carry out the work at the international level. Given the redesign of the CFP and the DCF funding mechanism through the EMFF such resources are at best available at the member state level coordinated through the RCGs.

There is a need to consider mechanisms of how the evidence needs of the RCGs can be joined up at the international level to support the nationally contributed science skill and knowledge within ICES to provide the evidence and monitoring delivery in an effective way to contribute to the fisheries and emergent ecosystem advisory needs.

3.1.3.4 *Database strategy*

ICES presented the status of the RDB which still promises to be the key tool for any progress in developing, implementing and monitoring any regional sampling plans. The presentation also spelled out the potential if the usability and functionality improved, even progressing to the same status of intercatch as a source for the data for most of ICES analytical assessments. The presentation on that strategy is summarised in **Annex 5**. WebGR is another tool which has improved regional cooperation and data quality. Currently both these tools are being maintained with voluntary contributions from individual MS and are in vital need of further investment to even continue to maintain them.

3.1.3.4.1 *Steering Committee for the Regional Database (SCRDB)*

ICES presented the status of the RDBES work and the work of the SC-RDB. The Executive summary from the SC-RDB is available in **Annex 3**. The SC-RDB 2016 proposed two new Steering Groups in its place the RCG-DBSC and the ICES-DBSG. There was some concerns raised in plenary over the process and formation of this ICES-parallel steering group and ultimately the governance and ownership of the RDB.

A subgroup of the SC-RDB, the RDB Project Expert Group, has been formed by the SC to work specifically on the new estimation system for ICES and has representatives mainly from the RCG groups. This now appears to be the key focus of the development. Changes and developments still need to be endorsed by the RCGs via the SGs. There has been a breakdown in communication over the last few years mainly due to this RCG not maintaining close correspondence with and full representation on the SC.

It is important to the RCG NA that the data-warehouse function of the RDBES should be maintained and improved while adding the estimation parts to the data base. It was also underlined that the

responsibility for the initial raising of data should be kept as a National responsibility; the RDB should provide a uniform format for this, but the actual raising need to be a National task.

The minutes of the SC-RDB 2016 asked for RCG feedback on their proposals. These are addressed by the RCG NA in **Error! Reference source not found..**

In summary, the RCG NA is very pleased with the maintenance and support ICES continues to provide and is happy that ICES are improving, at their own expense, the functionality with the REstimation System. The RCG NA is happy with other RCGs participating on the SC and observers being involved in the development but is very concerned about loosing the governance/control over the development and ownership of the RDB with the proposed evolution of the SC.

It was concluded that the structural set-up for the development process of the RDBES will be discussed at the Liaison Meeting in October between all RCGs.

3.1.4 Other End-users

ICES, EC and STECF are seen in the Northern East Atlantic Region to be the main end-user for data collected under the regulation and RCGs maintain regular communication with ICES but that is partly driven by the ICES MOU with the EU and the continued support provided by ICES data managers and secretariat. RCGs have used the ICES system for promoting or setting up EGs and workshops directly related to data quality, cooperation, coordination and optimisation of catch sampling designs. This has mainly been a consequence of the relationship with the old planning group - PGCCDBS which evolved as a consequence of the original regulation and more recently the expert group WGCATCH.

There are end-users other than ICES for the RCGs and those should potentially be represented in the meetings as well to get a more balanced view about end-user needs. In order to facilitate a constructive feed-back cycle between the RCGs and other end-users, it was discussed as to how to 'educate' both ends and what kind of feed-back is useful. For instance in terms of end-user needs; the needs described in the request are the current needs for provision of advice on sampling opportunities; however, there may be many other needs, which are not addressed by the current feed-back cycle. Using ICES as an example, it would be beneficial in the preparation for data compilation workshops (part of the benchmark process) if the enduser was informed of what data already existed and what data collected can be provided through the data calls. By increasing the knowledge of data origin, data compilation workshops will be able to address data quality issues hitherto unknown/unrealised, which then again will be conveyed back to the RCGs in terms of sampling strategy ideas. Such input to data compilation workshops could happen through provision of a 'raw' data extraction from the RDB for the given stocks (species and area defined) followed up by a presentation during the data compilation workshop.

In terms of prioritizing which data to collect, ICES groups do some of prioritizing based on science and with off-set in what can cover Client needs in term of advice; under this a reflection is necessary in terms of where the sample effort should be; ecosystem data, MFSD indicators, VME/VMS data, stock assessment input data, etc.?

Other endusers could be Regional Sea Conventions (OSPAR), RFMOs and NGOs but RCGs have no established lines of communication with these potential end-users. Whether these lines are necessary will depend on the influence RCGs have on their areas of interest. NGOs may currently lobby National

Governments to improve the monitoring for their areas of interest but as Regional Plans affect where and what monitoring MS may be obliged to do the NGOs may turn their attention to the role of RCGs - particularly in relation to the monitoring of the impact of fishing on marine ecosystems and protected and vulnerable species.

3.2 RCG evolution, governance and road map

To focus further on the evolution to Regional Coordination Groups and plan further work the RCG NA at its annual meeting broke up into four scheduled subgroups – End users needs and data quality; Research surveys - coordination and task sharing; Roadmap to regional sampling plans; Landings obligation. A review in plenary of the draft Generic Rules on Procedures stalled at the first paragraph so to progress the meeting more swiftly an additional sub-group made up of the Chairs and NCs was formed to settle on RCG NA specific RoPs. The main points from these sub groups are presented below – discussions and notes in relation to the subgroup work are provided in the Annexes.

3.2.1 Sub group: Rules on procedures

Article 9 of EU regulation 2017/1004 states the obligation on Regional Coordination Groups to draw up and agree Rules on Procedures. Pre-empting the publication of this regulation and following 2016 RCM recommendations, a pan regional subgroup was set up by the RCMs NA, NS&EA and the Baltic to draft generic Rules on procedures (RoPs) for the RCGs intersessionally. Several iterations were drafted by correspondence and the version agreed by the subgroup was presented to National Correspondents at the *DCF expert group on data collection* (E02750) in June 2017 with feedback from member states. For minutes and related documents see:

<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=2750>

Following the incorporation of member states input at the above mentioned meeting a final draft of generic RoPs was produced for presentation at the RCGs 2017.

This final draft was presented to the RCG NA 2017 and reviewed in plenary but it stalled at the first paragraph. It was clear that this draft in its current form was unlikely to get consensus in plenary within the time of the meeting. RCG NA concluded, that simplification was required. The generic RCG RoPs were too complex and attempted to address every likely scenario and outcome. This requires pre-empting a process that is just in its initial stages and it is not possible to foresee every potential issue. The preference of the RCG NA was to assume a positive and collaborative approach by all member states willing to regionally coordinate their data collection activities, as the starting point and incorporate solutions to any problematic scenarios if they arise. A sub group was formed of those National correspondents present to draft a scaled down version and the proposed RCG NA Rules on procedures were simplified where possible. The proposed text was revisited in plenary later in the week - and each section flagged green where consensus was agreed in plenary. Consensus was reached for most of the text and it was agreed some sections needed more work. The reviewed draft is presented in **Annex 7**.

To finalise the RoP for the North Atlantic, it was agreed that the RCG Chairs would re-circulate the agreed text after the RCG and Liason Meeting and ask participants to highlight any issues that prevent

them from agreeing to this draft and return their views to the chairs via their National Correspondent. These would then be finalised and sent out for formal acceptance.

3.2.2 Sub group: Regional Sampling Plans

3.2.2.1 Review progress since last years report

The fishPi project and MARE/2014/19 Med & BS project are the most relevant projects relating to Regional Sampling Plans that have happened recently. Both projects were regionally based and ended in 2016 and the different results presented to the the respective RCMs in 2016. Nevertheless the results of those projects has had little impact at different expert groups and in work carried out since.

The fishPi project covered the North Sea, but the work carried out was still relevant to North Atlantic fisheries under the remit of this RCG NA. It consisted of a number of work packages addressing the overall aim of regional coordination of fisheries data collection. The first work package dealt with the processes involved in regional coordination, another specific work package dealt with the development of simulations for regional sampling designs and the analysis for the best scenarios; a third work package covered the sampling of small scale and recreational fisheries, stomach content and bycatch of Protected Endangered Threatened Species (PETS). Finally a work package considered quality aspects and related to conformity checks for commercial fisheries data.

Focusing on the processes needed for regional coordination, fishPi provided a summary of some relevant achievements in recent years amongst which included an increased understanding of the fishery and sampling activities on a regional scale, the common nomenclature for métiers, ports, species and areas that are agreed under the DCF/EUMAP and reference lists in the RDB, the implementation of the regional database, the trust building between MS, the increased awareness of the need for more statistically robust sampling schemes or the establishment of networks to improve quality assurance.

These achievements are summarised below:

- I. The need for more statistically robust sampling schemes was encouraged by presentations derived from fishPi project and presented at ICES Annual Science Conference (September 2016): *“Statistical analysis of the sampling design: fishPi case study on the biological sampling of the European hake fishery”* (CM2016/O:142); *“Data quality in fishery science”* (CM Code CM2016/O:521) and *“Strengthening regional cooperation in small scale and recreational fisheries data collection”* (CM Code: G:208). These showed progress in cooperation, following and the sharing of scientific criteria in the service of data collection requirements. Some scientific papers are expected to be published based on the work package dealing with the simulation of sampling design scenarios.
- II. *Workshop on Optimization of Biological Sampling at Sample Level* (WKBIOPTIM) and *Training Workshop on Sampling Intensity* organized by the RCG MED&BS-LP. Both workshops explored data quality issues based on a common RDB exchange format (CL, CE, CS) that is part of the regional sampling approach.
WKBIOPTIM (20-22 June, 2017) aimed to provide tools based on R software that can be used by national institutes to quantify the effects of different sampling intensities and sampling designs and hence optimise them. Two main lines were analysed, one to detect oversampling of individuals within a sampling event and the other to work on population level to perform

simulations of different scenarios of sampling strategies and assess on possible effects in final population length structures obtained.

During the *Training Workshop on Sampling Intensity* organized by the RCG MED&BS-LP (March 2017) the Sampling Design tool for optimization (MARE/2014/19 Final Report, Deliverable 2.5) was tested and used in different cases studies.

- III. *Workshop on Sampling Design and Estimation of Commercial Catches: Cod.27.21 and sol.27.4* (29 May, 2 June 2017). This workshop was the first step in a completely new approach to produce InterCatch estimates based on the RDB exchange format. Although not strictly related to sampling coordination, this objective is fundamental to ensure best practice in estimation process and for transparency, compared to a current system where this process remains mainly undocumented.
- IV. *STECF EWG 17-04 on quality assurance for DCF data (3-7 July, Copenhagen)*. *Ad-hoc group established this year* to create a roadmap with timeline for all steps of the procedure of sampling pertaining to quality: planning; implementation; reporting and evaluation. This meeting is commented in the Commission and STECF section of **Annex 3**
- V. EU Call for proposals No MARE/2016/22 - "Strengthening regional cooperation in the area of fisheries data collection". A project (Acronym: fishPi2) was submitted. The project is coordinated by the University of St Andrews with the consortium bringing together 14 institutes, from 10 Member States spanning the basins of the North Sea and Eastern Arctic and the North Atlantic. If funded, the project is expected to start in November 2017 and duration is 15 months. fishPi2 project seeks to build on the work achieved in the fishPi project and provide clear guidance on the implementation phase of regional sampling. Work packages will address the operation of putative RCGs; will set out scoping of regional fisheries; and propose regional sampling plans for commercial fisheries. Other work packages will address stomach and incidental bycatch sampling; small scale and recreational fisheries sampling; and national and regional data quality. The project outcomes will form the basis of a consultation and a specific work package will address training in project deliverables.

The subgroup remarks that all these processes are achievements in themselves and confirm:

- slow but continuous development;
- a body of knowledge is developing;
- much more international effort is occurring in areas previously not evaluated at a regional level.
- R-tools are being developed. These tools can be used at national institutes thus allowing more inputs for improvements and discussions relating the optimization of sampling and also for determining possible quality indicators for biological parameters that can be used to evaluate sampling levels of the existing sampling schemes.

3.2.2.2 *Further steps towards Regional Sampling Plans*

To progress from the current situation, the following steps were identified:

1. Need to agree on quantitative objectives and metrics to evaluate and choose sampling designs.

From the above evidence, the subgroup suggests the following task for future progression of the TORs towards a regional sampling plan.

- *Different metrics (“precision estimators” e.g. numbers, numbers-at-length, biomass, F or SSB in the assessment)) differentially gain by different stratification schemes in the fishPi project.*



There is a need to agree what metric or group of metrics should be chosen and how they can be derived from the RDB before trying to evaluate the optimal sampling design.

- *Although generally reducing the estimate of variance in fishPi simulations across species, the potential for improvements in precision from various stratification schemes differ between species.*



Therefore there is a need to be specific about species to consider based on their importance to the advisory process and the national policy requirements in order to agree regional strata.

- *Standard error estimates for the different strata based on the fishPi simulation frame work done suggest that variance as well as means differ between the strata.*



This suggests that focusing sampling effort on the strata with the highest variance (disproportionate stratified random sampling) will result in efficiency savings for a regional sampling plan compared to random or proportional sampling.

In order to identify ‘optimal’ designs in an environment of limited resources it is necessary to agree an objective metric and the species to consider when identifying preferred options from the potential sampling programs evaluated through simulations.

The cooperative frame work / constraints in which such optimal designs should be evaluated needs to be agreed (i.e. agree the degree of deviation from the optimal design that can be tolerated to account for national data needs or the maximum shift of sampling effort between countries that could be tolerated).

To maintain the objectivity of the decision-making process, ideally **metric**, **species** and **constraints** should be agreed before the simulation exercise begins. This should aid agreement of a regional sampling plan post evaluation.

In this field, based on the simulation work done, fishPi project already stated the importance of having clear established criteria to evaluate the sampling design scenarios and select the most adequate sampling plan. Metrics and considerations to incorporate to the process of selecting between different sampling designs should include:

- **Precision analyses:** selection of scenarios with highest precision. Precision may be evaluated as standard error (particularly useful with Gaussian distributions) and/or inter-quartile range (more adequate with skewed distributions).

- **Coverage by country:** regardless of the statistical robustness it is necessary to analyze the possible deviations that may occur with respect to the current coverage of the National sampling programs.
- **Coverage by domain:** regardless of the statistical robustness it is necessary to analyze the possible deviations that may occur with respect to the post-stratification currently used by the National institutes to provide commercial data to ICES: technical (métier), spatial (ICES Division), and time (quarter) disaggregation. Evidence from case studies results shows that higher coverage of some areas and métiers may be achieved by some scenarios that yielded slightly lower precision in estimates of total landings.
- **Indicators of efficiency:** consider indicators like mean and variance of *n_ssu_with_spp* and *ton_spp_in_sampled_ssu* per species, strata and post_strata) should be a part of outputs so we approximate better what we can expect from design.
- **Realism:** all scenarios should match real-life sampling design conditions. As an example, all days of the year should be included unless specific days are known not to have any landings; all fleets should be included unless specific fleets are known to have negligible landings with similar fish size/age structures.
- **Adequacy to end-user needs:** A regional sampling design should aim at estimating accurate length/age composition of the landings of the priority stocks for stock assessment purposes while at the same time providing accurate estimates for many other stocks and fisheries subject to assessment.

This 2017 RCG NA Subgroup on regional sampling plans advocates a phased approach:

- **Gradual approach:** national changes to accommodate regional sampling plans needs to be gradual. MS cannot adjust to radical changes from one year to the next for a number of reasons (contracts, etc). This could be more problematic when the MS is sampling below the levels that a regional sampling plan needs to establish. There may be a critical rate of change. The MS might only be able to reasonably reach the regional sampling plan level incrementally e.g 15% per year. This criteria has to be considered and developed.

The RCG NA recommends establishing a pan-regional subgroup on regional sampling with the initial remit of compiling a list of the different metrics and criteria that can be used to determine the best sampling scenarios for regional samplings plans. Such a list should detail the metrics and criteria and include the pluses and minuses of the different indicators. See Recommendation 3.2 Section 4.

2. Develop a statistical way to prepare and assess sampling designs based on RDB data.

Sampling design simulations (as done during fishPi) are currently based on logbook information. Lot of knowledge has been developed due to this procedure based on disaggregated data by trip. Those lessons are being incorporated into the sampling designs teams thus allowing a better understanding of the different aspects that play a role in the regional sampling design.

Nevertheless, RCG NA need the sampling simulations designs and the assessment of the sampling designs to be based on the RDB data. This is due to several reasons: successfulness of the RDB as regional storage system; improvements at a regional level due to a rise of collaborative work based on RDB exchange format (fishPi, COST quality developments, WKBIOPTIM, RCGs Data Subgroup, etc); problems to base that simulation exercises on trip information (confidentiality issues, compilation process and checks are hard, etc, it's not realistic to base the work in continuous extra data calls every

year); and need of the RCGs to convert the RDB in the real tool for RCG regional coordination purposes (which was, in fact, the original reason that moved RCGs to push for this RDB).

In order to allow these exercises based on RDB data, work must start to clarify the methodology for those simulations and work must be done to ensure RDB data exchange format contains the information needed (may be some extra fields could be needed).

This task is not expected to be fully accomplished within a one year time frame, but such methodology has to be ready as soon as possible to validate regional sampling plans.

The RCG NA strongly recommends that processes and methods are developed that can use the data currently available on the RDB in simulations and analysis to test regional sampling designs. See Recommendation 1.1 Section 4.

3.2.2.3 *Proposal and ToRs for Workshop for standardising trip assignment to métier.*

All catch, effort and sample data is uploaded to the RDB by métier and limited to a reference list of RCM agreed métiers defined by ICES area. Member States submit their data to ICES on Intercatch disaggregated by métier and the JRC for FDI datacalls and other RFMOs also request the data by métier without reference to the RCM agreed list of métiers.

Member States have independently developed their own code and processes for calculating species target assemblages and rules for merging métiers. This is initially based on the transversal data for a trip which may or may not cover more than one métier. These methods are not necessarily consistent between countries and even between agencies within countries and could be based on, for example, a foreshortened list of species assemblages; rules for particular gears; catch by weight and or value and relative ratios. The impact of the different methods is not known but as data is being compared more readily at a regional or international level, so as to improve on confidence in current assumptions simple rules and standards need to apply.

Since 2009 RCMNA has regularly recommended MS provide, maintain and update fleet descriptions for all sampled métiers to better define and compare similar fleets and the sampling of them between nations. This has been only moderately successful with no clear repository for them. ICES Expert Working Groups are now also requesting fishery and métier descriptions as part of their data calls. A repository and better strategy is required for collating and maintaining MS descriptions.

The RCG NA therefore recommends the holding of a data compilation workshop with the following objectives:

- Standardise the processes that use trip based transversal data to determine the métier;
- Consider criteria for aggregating data for different end-users (JRC, ICES and other RFMOs)(e.g consider if for the current and future needs a reduction in the number of metiers is needed in order to work with an “easy to drive” list of metiers)
- Investigate a framework for managing métier and fleet descriptions when needed.

RCG NA 2017 proposes that such a workshop should be a hands-on-workshop and can follow this structure:

- Workshop is announced by the RCGs to all its MS. The announcement should highlight that this opportunity is created by the MS aiming at regionally coordinated assignment of trips to métiers. This opportunity includes contributing with their own participants/data/methods.
- The participants from each MS should be people involved with the method that assigns data into métiers (people that developed the method, or that work with it and know it intricately).
- Participants should bring already prepared to the workshop: a flowchart of their method of assigning data into métiers; the means to apply their method (code);
- The workshop should begin by listing the different methods presented by the MS. Then analyse data simultaneously with different approaches/codes, comparing the results obtained.
- The outputs of the workshop will then be brought to the following annual RCG for discussion and for consideration/decision on methodological changes (if any) needed to national procedures of assigning trips to métiers.
- Input of main end-users currently working with metier data (ICES, JRC, etc.) will be needed.

The RCG NA recommends a data compilation workshop to:

1. Standardise the processes that use trip level (or lower) transversal data to determine the métier.
 2. Consider criteria for aggregating data for different end-users (JRC, ICES and other RFMOs).
 3. Investigate a framework for managing métier and fleet descriptions when needed.
- See Recommendation 3.4 Section 4.

3.2.3 Sub group: End-user needs and data quality

Because of the limited number of participants the two separate ToRs, but related work areas, were combined and covered within this one subgroup. In summary the key end-users for the data from North Atlantic Region are ICES and STECF who also offer a source for the experts and EWGs that can feedback on best practice for data collection, data quality checks and evaluation of sampling plans and the same experts are often present and working at the RCGs. The group discussed the involvement of end-users at the RCGs and the feedback mechanisms. The processes for data exchange and data calls were discussed and could be improved. The group focused on the processes within ICES as an end-user, the mechanisms and flow and potential for improvement. This touched on the issues of data quality and the different datasets which led to a review of the potential for the RDB as a one-stop shop for end-users for fishery dependant catch data. An example of the QA that might be considered using the current data on the RDB for anglerfish was developed by the sub-group and demonstrated.

The details of these reviews, discussions and conclusions are documented in **Annex 8**.

The RCG NA recommends establishing a data end user subgroup. To work closely and intersessionally with ICES to improve communication; establishing common references for standard processes and information and identifying effective processes for meeting end-user needs. See Recommendation 3.1 Section 4.

The group also addressed three specific tasks directed at the RCGs, one was to review a template WGCATCH were asking countries to complete to provide an overview of the sampling of foreign landings and the other two tasks reviewed the potential for the automatic completion and evaluation

of Annual Work Plans and Annual Reports focusing on 1) the completion of Table 1A and 2) their evaluation using RDB data. These are addressed in the

and **Response to Completion and evaluation of Annual work plans.** respectively.

The group are able to demonstrate in **Annex 8** section **Utilisation of RDB metadata for STECF evaluation of MS national plans** how a simple summary from the RDB could provide sufficient information to help with the evaluation of AWP and ARs and as a consequence...

The RCG NA recommends that metadata derived from the RDB can form a part of the MS annual report for evaluation by STECF of the MS national plans and advocates the investigation of methods for using RDB data and metadata and automated procedures for completing, screening and evaluating MS national work plans. This would be dependant on MS uploading data to RDB so as to be readily identifiable with the sampling commitments outlined in table 4A of national work plans. See Recommendation 1.3 Section 4.

Based on the concerns raised at the meeting in relation to the proposed SC-RDB changes to governance of RDB discussed in section 3.1.3.4.1 and the formal response in **Annex 8 Response to SCRDB proposals on RDB governance**, the **RCG NA recommends** re-establishing formal representation at the SCRDB and to improve feedback to RCG members. See Recommendation 3.3 Section 4.

3.2.4 Sub group: Research surveys and task sharing.

At the 2016 RCMs, a pan-regional subgroup on surveys was established, more specifically, this group was tasked to develop a cost-sharing model for research surveys at sea. The outcome of the work is published and can be accessed through the following link:

<https://datacollection.jrc.ec.europa.eu/docs/rcm/2017>

For RCG NA, the work of this group is considered to be finalised for now, hence, continuation of the subgroup is not considered relevant. The outcomes of the group are applied to the cost-sharing model being proposed for the cost-sharing of the Blue Whiting survey for 2018 and 2019.

3.2.4.1 Cost sharing agreements for 2018 & 2019

Currently, two surveys are subject to cost sharing; the International Ecosystem Survey in the Nordic and the Blue Whiting survey. At the 2016 RCM NS&EA basic agreement was reached to proceed with already established procedures for 2017 and to finalize the cost-sharing models in 2017 to be implemented in 2018.

Having reviewed the work by the pan-regional subgroup on cost-sharing and having acknowledged that a new cost-sharing agreement for the Blue Whiting survey is preferred, RCG NA recommends to set up a new cost-sharing agreement for the Blue Whiting survey. For the International Ecosystem Survey in the Nordic, a new cost-sharing agreement will be established through RCG NS&EA.

The cost-sharing agreement for the Blue Whiting survey can be found in **Annex 9**.

The RCG NA recommends continuing cost-sharing of the Blue Whiting survey in 2018 and 2019 through an updated agreement and to have this cost-sharing agreement as a part of the Regional Sampling plan for the North Atlantic. Following the DCF regulation and the Gothenburg-model for cost-sharing of surveys, the agreement applies to those MS having a EU-TAC share $\geq 3\%$ for blue whiting. See recommendation 2.1 Section 4

3.2.4.2 Evaluation and updating the list of mandatory surveys

RCG NA was tasked to provide input to the STECF EWG meeting on the evaluation of surveys. Apart from evaluating the status, impact and utility of a survey in DCF context, as these surveys are listed as mandatory in EU MAP (2016/1251/EU), table 10 of this regulation which lists the mandatory surveys will be revised on the basis of this evaluation. It was suggested that the RCGs would provide complete overviews of all existing surveys and to propose this list for evaluation. After consideration by the dedicated subgroup on surveys, RCG NA considered that the task of going through the table 10 list and suggesting updates was too onerous for this meeting due to several factors:

- lack complete overviews listing all surveys having the potential to be included in table 10

- Member States might have a preference not to nominate certain surveys as this might pose problem for future continuation
- Insufficient expertise and time to do an evaluation of the list of mandatory surveys as this requires specific expertise and at least uniform evaluation criteria across all regions.

As a first step, ICES provided a file with all listed surveys with their names, acronyms, Table 10 acronyms (not always the same as the ICES acronym), advice WG etc. The subgroup felt that this table would be useful for the evaluation process, although it was noted that some issues needs to be addressed prior to the evaluation. RCG NA however suggests to leave the decision whether or not to use this table at the discretion of the Expert Group (EG). The following, non-conclusive, list highlights some of the issues with this table.

There is duplication of surveys due to differing acronyms but also with differing WG for example:

1. ScoGFS-WIBTS–Q1 with Datras database and ref to WGWIDE, WGCSE, WGEF is also listed as UKSGFS-WIBTS-Q1 with Datras and SCOWCGFS databases and ref only to WGCSE.
2. DFS-Q3 in the ICES table indicates there is no Table 10 acronym but the acronym is DYFS.
3. UK (E+W)-YFS has been discontinued for a few years but is still in use by ICES' WGNSSK as a survey used for advice. Despite this, as the survey is discontinued, this survey is not to be listed in Table 10.

As input to the EWG, RCG NA decided it was preferable to set up intersessional work to be completed by MS in time for consideration by the EWG. RCG NA recommends sending each MS national correspondent a request to complete a newly devised spreadsheet (loosely based on information used by SGRN 10-03 to evaluate and approve surveys which are now in Table 10 but also requesting mandatory information from Table 1G of the Work Plans Oct 2016). This table was devised to allow MS to copy much of the detail from their Work Plan proposals. It is available on the RCG NA sharepoint:

[https://community.ices.dk/ExternalSites/datacollection/Regional coordination meetings 2017/Regional Coordination Group North Atlantic 2017/2017 Meeting docs/04. Working documents/Surveys/SurveyEvaluationTabRCGNA2017.xlsx](https://community.ices.dk/ExternalSites/datacollection/Regional%20coordination%20meetings%202017/Regional%20Coordination%20Group%20North%20Atlantic%202017/2017%20Meeting%20docs/04.%20Working%20documents/Surveys/SurveyEvaluationTabRCGNA2017.xlsx)

The collated information will then be made available to the EWG in 2018. The proposed table is too big to present in this report but the template consists of the fields listed in Figure 1.

USE ONE LINE PER SURVEY	
Variable	Guidance
MS	Same as workplan
Name of survey	Same as workplan
DCF Acronym	Same as workplan
Mandatory (Y/N)	Same as workplan
Threshold (Y/N)	Same as workplan
Agreed at RCG level	Same as workplan
MS participation	Same as workplan
Area(s) covered	Same as workplan
Period (Month)	Same as workplan
Frequency	Same as workplan
Days at sea planned	Same as workplan
MAIN Type of sampling activities	Similar to workplan but only give main type; one line only
Planned target	Same as workplan
Map	Same as workplan
International SURVEY planning group	Similar to workplan
International database	Same as workplan
Comments	Same as workplan
Other acronyms for this survey	List any other names that are used for this survey, e.g. by ICES, DATRAS or nationally
ICES Eco region	If the survey covers more than one eco region, disable cell validation and list eco regions, separated by semi-colon.
Target species	List target species, separated by semi-colon.
Target species by TAC area	List TAC stock codes, separated by semi-colon. See tab:TacStockCodes
Stocks used in the assessment	List ICES stock codes, separated by semi-colon. Only include stocks that are used in the assessment model. see tab:ICESStockCodes
International Assessment group	List assessment groups that use the data for this survey, separated by semi-colon
Main survey objective	E.g. to obtain a biomass o index of xxx, recruitment index, egg production index, acoustic index
Secondary objectives	List secondary objectives
MSFD descriptors addressed	List MSFD descriptors which are addressed using data from this survey; separated by semi-colon
Coordinated with other MS?	Yes/No
Comments on standardisation	Which aspects of the survey are standardised/harmonised with other MS, e.g. gear, spatial coverage, fishing protocol; sampling protocol
International survey manual	Name of agreed manual (if it exists)
First year of time series	When did the series commence?
Gaps in time series?	List any years/seasons when the survey did not take place (e.g. "the survey was not carried out in 2003 due to vessel problems")
Currently mandatory under DCF?	Is the survey currently in Table 10?
Evaluate for new list of mandatory surveys	Do you wish to have this survey evaluated for inclusion in the new list of mandatory surveys?

Figure 1 – Screen shot of guidance provided in template.

The RCG NA recommends a process for the Commission and STECF to collate relevant survey information from all MS to facilitate the evaluation of the surveys listed in Table 10, as well as to collect information for inclusion in the revised version of Table 10. See Recommendation 1.2 Section 4.

3.2.5 Sub group: Eels and Salmon

Given the geographical span as well as the regional need to organise and coordinate data collection of diadromous species, the Liaison Meeting of 2016 discussed the need for a pan-regional subgroup on these species (eel, salmon, sea trout) and wished to initiate a subgroup on this to prepare advise on what needs to be done for diadromous species in a Regional Workplan, including listing end user needs (variables required, frequency, intensity), including possible needs for regional agreements (e.g. setting index rivers) and time frame for implementation.

Eleven experts on diadromous species met during the RCG Baltic meeting September 2017, along with one representative of the Commission and one from ICES. The experts 'represented' 7 countries: Finland, Sweden, Poland, Germany, Latvia, Estonia, UK.

The RCG Baltic meeting was selected because (i) it was one of the first meetings of 2017 and so the outcomes could then be circulated to the later RCG meetings, and (ii) the Baltic is the region where most diadromous species are listed in the EU MAP: salmon, sea trout and eels (sea trout data collection not being a requirement of the EU MAP in other regions).

The diadromous experts considered the proposal for a pan-regional sub group on diadromous species, confirmed this proposal, and therefore initiated the Diadromous Sub Group (DSG). The first meeting of the DSG was chaired by Alan Walker (UK), but following the Rules on procedures, a chair will be elected during the first year of the DSG once the membership is fully established.

During the RCG Baltic, the DSG addressed its ToRs (drafted by AW and Uwe Krumme, the chair of the RCG Baltic). The key findings are summarised below, and detailed in **Annex 10** to this report.

As the RCG North Atlantic took place in the same week as the Baltic meeting, a telecom was held between the two groups to review developments on diadromous species coordination during the week.

As the DSG is pan-regional, the reporting format was discussed with the chairs of the RCGs Atlantic, (NA) and North Sea & Eastern Arctic (NS&EA) and agreed that the diadromous annex to the RCG Baltic report would also be included as an annex to these other RCG reports. The same process is proposed for the RCG Mediterranean & Black Sea (Med&BS), but has not been discussed with the chair of that RCG yet.

Summary of findings against the seven ToRs

1. The proposal for a pan-regional sub group for diadromous species was supported, and Aims and Objectives in the form of ToRs were drafted for consideration at the Liaison Meeting 2017.
2. The ICES Working Group on Baltic Salmon and Sea Trout (WGBAST) and the EIFAAC/ICES/GFCM Working Group on Eel (WGEEL) have recently reported on data collection programmes, management or assessment units, and the ICES Working Group on North Atlantic Salmon (WGNAS) through a workshop in 2012. These WGs will be asked to advise on data collection requirements and benefits of regional coordination through their roles as end users. WGEEL has initiated an official data call in 2017.
3. The DSG examined the recent STECF reports from 2016 and 2017 for recommendations to ease the reporting and evaluation of national work plans and technical reports. Time limits prevented further progress during the meeting.
4. Regional coordination in the Baltic is well established, though not fully implemented for all species and stocks. Outside the Baltic, regional coordination is less well established and the benefits less obvious, though some potential opportunities for eel were suggested. Advice on what regional coordination is required for diadromous species should be sought from the ICES assessment working groups as end users.
5. Following the intent of the EU MAP, end user feedback is required from which to agree on designated rivers and management units, and so questions are posed to the ICES assessment Working Groups. However, in support of this work the DSG drafted proposals for criteria to identify 'index' rivers, using eel in the Baltic Region as an example.
6. The RCG sub group on Quality compiled landings per harbour, including eels and salmon, as a way to check for data submission errors. However, the marine-focussed databases are not ideal for incorporating all the DCF Data for diadromous species because some data are unique, e.g. data from fresh waters instead of marine waters, and some biological data types. The WGEEL and ICES are developing eel-specific databases, and the ICES will continue to examine ways to adapt the Regional Database to suit diadromous species data. Data provision through databases should facilitate quality assurance processes.
7. This ToR was interpreted to refer to evaluation of national (and future regional) sampling programmes. To start, an overview of salmon, sea trout and eels data collected by Member States in the Baltic region was prepared, highlighting data collected within or outside the DCF, and those used in international, regional or national assessments. This will be expanded to all EU Member States in 2018.

3.2.5.1 *Recommendations from DSG to ICES Working Groups*

Recommendation and questions in relation to Salmon and Sea trout

Recommendations for WGBAST
WGBAST to consider and report any benefits to Atlantic salmon and sea trout assessment of regional coordination of data collection in the Baltic.
The Regional Database can be modified to better incorporate the data collected for salmon, sea trout and eels under the DCF. The WGBAST, WGNAS and WGEEL are asked to list the data types that should be incorporated in the RDB to achieve this.
WGBAST to work out the optimal approach for selecting the appropriate index rivers in the Baltic
Questions for WGNAS to address:
What are the data needs for the individual EU member states in order to conduct an annual assessment for Atlantic salmon?
Which are the appropriate management units for these assessments?
Which are the appropriate rivers where data should be collected, and what is the rationale for selecting these particular rivers?
Recommendation for WGNAS
WGNAS to consider and report any benefits to Atlantic salmon assessment of regional coordination of data collection in the North Sea & Eastern Arctic, and North Atlantic RCG regions.
The Regional Database can be modified to better incorporate the data collected for salmon, sea trout and eels under the DCF. The WGBAST, WGNAS and WGEEL are asked to list the data types that should be incorporated in the RDB to achieve this.

Recommendations in relation to Eel -

Recommendations for WGEEL, North Sea & Eastern Arctic & North Atlantic RCG
WGEEL to consider and report any benefits to eel assessment of regional coordination of data collection in the North Sea & Eastern Arctic, and North Atlantic RCG regions.
WGEEL to advise on data quality indicators, the quality of data supplied by MS, the effect of these qualities on the assessments, and therefore identify any significant improvements in data quality required.
Recommendations for WGEEL, Mediterranean & Black Sea RCG
Mediterranean & Black sea RCG to consider and report any benefits to eel assessment of regional coordination of data collection in the Mediterranean.
WGEEL to consider and report any benefits to eel assessment of regional coordination of data collection in the Mediterranean.
Recommendations for WGEEL
WGEEL to work out the optimal approach for selecting the appropriate index rivers in the Baltic
The Regional Database can be modified to better incorporate the data collected for salmon, sea trout and eels under the DCF. The WGBAST, WGNAS and WGEEL are asked to list the data types that should be incorporated in the RDB to achieve this.

3.2.6 Monitoring Recreational Fisheries

Marine recreational fishing (MRF) in Europe has been shown to be high participation, with significant social and economic benefits, but also has impacts on some fish stocks (Hyder et al. 2017a; 2017b). Since 2001, there has been a legal requirement from the European Commission to collect recreational catches and releases for selected species under the Data Collection Framework (EU 2001; 2008; 2010; 2016). Currently under the EU multiannual programme (EU MAP), estimates of catches and releases are required for Atlantic cod, European sea bass, European eel, Atlantic bluefin tuna, Atlantic salmon, pollack, and all elasmobranchs, with variation in species requirements across regions (EU, 2016). The WGRFS brings together scientists from across the globe working on MRF to share experience and help deliver robust MRF data. The overall aims of the group are: to collate and review quality of national estimates; assess new survey designs; advise on data, assessment, and future data collection; and review and assess regional data collection for RCGs (ICES 2010; 2012; 2013; 2014; 2015; 2017b).

At the RCG, a presentation was provided by the ICES Working Group on Recreational Fisheries Surveys ([WGRFS](#)) about marine recreational fishing (MRF). This highlighted the current status, the role of the RCGs in the improvement of MRF data, and the support the WGRFS could provide. A summary of the presentation is provided after the Executive summary for WGRFS 2017 in **Annex 3 WGRFS**. The main conclusion from the presentation was that WGRFS and RCGs should maintain clear communication channels to ensure sufficient understanding of the potential impact of Marine Recreational Fishing and monitoring issues – particularly the regional data gaps, data quality, and data access issues. This could be achieved by ensuring that each RCG includes a MRF expert from WGRFS, and provide the means to identify further ad hoc support for the RCG on MRF as required.

3.2.7 Landing obligation.

Prior to the meeting a template was circulated for all MS to complete. These templates are designed to capture the impacts of the landing obligation on sampling programmes and data and to reference to solutions to any perceived issues. At the time of the other subgroup work this subgroup focused on the landing obligation and the impact of that on catch estimates and national catch sampling programmes. This subgroup focused on those completed templates and the review is available in **Annex 11**. The subgroup were able to review the landings of the BMS fraction recorded in RDB data and from plenary discussions it was clear that this component of the catch might not have been reported or uploaded correctly to the database. The RCG chairs will be more specific in the data call for 2018 about how these data are to be uploaded.

RCG NA recommends intersessional subgroup work to maintain an overview and that MS continue to account for the additional catch fractions brought about as a consequence of the landing obligation. They need to account for them in their recording of transversal variables and biological data and adapt to the annual updates of the regional discard plans. MS should continue to review, monitor and advise on the impact of the implementation of the landing obligation on sampling catches for biological data, catch data and catch estimates. See recommendation 3.5 Section 4.

3.2.8 New co-chairs and next meeting.

RCG NA decided to run in 2014 to a co-chairs system to help with the expected increase in intersessional activities. After a two years term, there were no volunteers and Jon Elson agreed to continue his role as co chair of the RCG NA with Leonie O'Dowd for 2018.

The 2018 Annual Meeting meeting will be held on the 10th to the 14th September in Vigo, Spain.

Historic dates and venues

Dates	Venue	Chair(s)
16-20 September 2013	Sukarrieta, Spain	Kelle Moreau, Belgium
22-26 September 2014	Horta, Azores, Portugal	Kelle Moreau, Belgium Jose Rodriguez, Spain
14-18 September 2015	Hamburg, Germany	Jose Rodriguez, Spain Estanis Mugerza, Spain
12-16 September 2016	Lisbon, Portugal	Estanis Mugerza, Spain, Jon Elson, UK
04-08 September 2017	Galway, Ireland	Jon Elson, UK Leonie O'Dowd, Ireland

4 Recommendations

4.1 Recommendations from the RCG NA 2017 annual meeting:

Recommendations are grouped into the following three categories-

1. Recommendations to external parties – end-users, Commission/STECF
2. Recommendations to NC of MS participating at the RCG relating to agreements, ...
3. Internal recommendations covering intersessional work by subgroups (regional and pan-regional) includes recommendations to other RCGs.

4.1.1 Points for discussion:

The following points were raised in relation to RCG recommendations to be highlighted to the forthcoming liaison meeting:

- Legality – status and function of recommendations
- Can the ICES recommendation database be used to track all recommendations – offered at Liason 2016?
- Are recommendations for pan-regional sub-groups and intersessional work required? Is there a better process?
- To capture an ongoing concern expressed by MS about the resourcing of any intersessional work, do we submit a general, overall recommendation for MS and subgroup leads to monitor the resource requirements for the intersessional work? The intersessional work is the only way that the RCGs will be able to effectively progress and execute their function.

4.1.2 List of Recommendations per category:

1. Recommendations to external parties- endusers, Commission/STECF
 - 1.1. Using the current structure of the RDB in simulations to test regional sampling designs in WGCATCH/RCG
 - 1.2. Collate survey information from MS for evaluation of EU-MAP Table 10
 - 1.3. Utilisation of RDB for completion and evaluation of MS national Annual Work Plans and Annual report.
2. Recommendations to MS participating RCG - relating to agreements
 - 2.1. Cost sharing agreement
 - 2.2. Agreement of RCG NA Rules on procedures. Not formatted as a recommendation but views and agreement will be sought by correspondence post Liason meeting.
3. Internal recommendations covering intersessional work by subgroups (regional and pan-regional) including recommendations to other RCGs.
 - 3.1. Establish a RCG data end user subgroup.
 - 3.2. Pan regional sub group on Regional Sampling Plans
 - 3.3. RDB SC- Recommendations on the representation of RCG NA members on the RDB steering group
 - 3.4. Workshop for standardising Metier assignment (needs further details)
 - 3.5. Implication of the Landing obligation

1. Recommendations to external parties - end users, Commission/STECF

1.1. *Using the structure of RDB in simulations in WGCATCH/RCG*

RCG NA 1.1: Identifying means and processes for using the current structure and data uploaded to the RDB in simulations that can test regional sampling designs.	
RCG NA 2017 Recommendation	The RCG NA strongly recommends that: processes and methods are developed that can use the data currently available on the RDB in simulations and analysis to test regional sampling designs
Justification	The current structure of the RDB limits what simulations might be used to test sampling designs. The analysis carried out in the FishPi study was dependent on a separate data exchange and detailed disaggregated transversal data outside the limits of the RDB and the current data exchange agreement. This should not stop any further development of regional sampling plans and time and effort needs to be spent looking at developing alternative methods and simulations that can help optimise regional sampling but using the information, basic structure and data already supplied to the RDB. Work must be done to ensure RDB data exchange format contains the information needed. This may be limited by aggregated transversal data but additional fields or alternative aggregations might be more appropriate.
Follow-up actions needed	1. RCGs to identify or establish the subgroup to work on this. 2. Subgroup to determine terms of reference and deliverables 3. Subgroup to provide guidance to the SC-RDB on any additional data requirements within the structure of the RDB 4. WGCATCH to provide guidance references on what alternative analyses could be considered.
Responsible persons for follow-up actions	• Subgroup regional sampling plan • SC-RDB • WGCATCH
Time frame (Deadline)	2018

1.2. Collate survey information from MS for evaluation of EU-MAP Table 10

RCG NA 1.3: Collate survey information from MS for evaluation of EU-MAP Table 10	
RCG NA 2017 Recommendation	The RCG NA recommends that the Commission and STECF collate relevant survey information from all MS to facilitate the evaluation of the surveys listed in Table 10, as well as to collect information for inclusion in the revised version of Table 10.
Justification	During RCG NA in collaboration with ICES, it became apparent that more as well as detailed information was required to facilitate the evaluation of the mandatory surveys listed in Table 10. The purpose of this evaluation is twofold: • First and foremost, to revise and update the list of mandatory surveys in Table 10. Inclusion of new surveys and exclusion of currently listed surveys is to be done on pre-defined criteria. • Second, updating Table 10 allows for the inclusion of information facilitating future work of the RCG, e.g. in the light of cost-sharing. It is well known that Table 10 is out-dated, hence, updating Table 10 should be done on the most up-to-date information, only available to the MS involved. By collating the information through the MS, this up-to-date information on surveys can be gathered as well as additional information for future inclusion in Table 10.
Follow-up actions needed	1. Commission to consult with and take into account any response from ICES and other RCGs relating to this particular task 2. Commission to send out the designated spreadsheet to all MS giving sufficient time for MS to respond. 3. MS to respond to the request 4. Commission to collect and process all information prior to the EWG
Responsible persons for follow-up actions	Commission, NC
Time frame (Deadline)	31st November for the templates to be circulated. Deadline for a response 1 month prior to STECF EWG on Evaluation of surveys

1.3. Utilisation of RDB for completion and evaluation of MS national plans

RCG NA 1.3: Utilisation of RDB for completion and evaluation of MS national plans	
RCG NA 2017 Recommendation	RCG NA recommends the investigation of methods for using RDB data and metadata and automated procedures for completing, screening and evaluating MS national work plans. RCG NA recommends that MS upload data to RDB so as to be readily identifiable with the sampling commitments outlined in table 4A of national work plans. RCG NA recommends that metadata derived from the RDB can form a part of the MS annual report for evaluation by STECF of the MS national plans.
Justification	The RDB can be utilised to enable the generation of electronic metadata on the scope and quality of data collected under MS national work plans. A move to include automated meta data report(s) as part of a MS annual report would ease the workload of MS and has the potential to improve relevance of the data quality metrics used by STECF in the evaluation of MS national programmes.
Follow-up actions needed	1. MS (can chose) to upload their samples labelled with stratum ID code specified in table 4A of national work plans using the project field of the CS data. 2. RCG data subgroup to generate meta data reports that can be used to populate MS annual reports. 3. RCG data subgroup to circulate prototype for the format of a meta data template/report to NC for consideration and agreement at RCGM 2018needs to be generated and commonly agreed upon. are generated to form part of the MS annual report used by the 4. STECF to use the reports in evaluating the execution and quality of data collected by member states.
Responsible persons for follow-up actions	MS, RCG data group, STECF
Time frame (Deadline)	MS should be able to tag their data in the RDB data call (~July 2018) related to data collected in 2017 Meta data reports could form part of the STECF AR evaluation conducted in ~Jun 2019.

2. Recommendations to MS participating RCG - relating to agreements

2.1. Cost sharing agreement

Discussion in plenary concluded that in the first instance these cost sharing agreements should be incorporated into national work plans which will ultimately be submitted as part of a Regional Work Plan when one is agreed.

RCG NA 2.1: Cost-sharing agreement for the Blue Whiting Survey in 2018 and 2019	
RCG NA 2017 Recommendation	RCG NA 2017 recommends continuing cost-sharing of the Blue Whiting survey through an updated agreement and to have this cost-sharing agreement to incorporated into national work plans which will ultimately form part of the Regional Sampling plan for the North Atlantic. Following the DCF regulation and consensus on the Gothenburg-model for cost-sharing of surveys, the agreement applies to those MS having a EU-TAC share $\geq 3\%$ for blue whiting.
Justification	There is an end-user need for fishery independent survey data for carrying out stock assessment of the blue whiting stock. Based on the DCF regulation, MSs having a TAC share $\geq 3\%$ are expected to agree on cost-sharing of surveys.
Follow-up actions needed	1. RCG subgroup to finalise the draft agreement 2. MS involved (Denmark, France, Germany, Ireland, Spain, Sweden, The Netherlands, United Kingdom) to sign the agreement 3. MS to include this agreement in their national work plans 4. MS to include the agreement in their respective National Workplans. (5. RCG NA to include this agreement in the regional workplan.)
Responsible persons for follow-up actions	RCG subgroup (Leonie O'Dowd (Ireland), Sieto Verver (The Netherlands) to finalise the draft agreement), NC and MS.
Time frame (Deadline)	October 15, 2017 (in time for the resubmission of the National Workplans)

2.2. Rules on procedures

Final agreement to be achieved by correspondence in 2017.

3. Internal recommendations covering intersessional work by subgroups (regional and pan-regional) includes recommendations to other RCGs.

3.1. Establish an RCG data end user subgroup.

RCG NA 3.1: Establish and maintain a pan regional RCG data end user subgroup	
RCG NA 2017 Recommendation	RCG NA recommends establishing a data end user subgroup. To work closely and intersessionally with ICES to improve communication; establishing common references for standard processes and information and identifying effective processes for meeting end-user needs.
Justification	Setting up this subgroup will facilitate the role of the RCG to support end users. The subgroup will act as a point of contact for data end users, a framework for feedback and allow the RCG to prioritise its activity relating to future data collection, storage and transmission functions.
Follow-up actions needed	1. RCG chairs to establish end-users subgroup (Initial members RCG chairs). 2. RCG Chairs in consultation with endusers to draft ToRs and deliverables. 3. RCG subgroup to report regularly to members.
Responsible persons for follow-up actions	Chairs of RCGs, end-users (ICES, STECF, other RFMOs)
Time frame (Deadline)	Ongoing

3.2. *Pan regional sub group on Regional Sampling Plans.*

RCG NA 3.2: Pan regional sub group on Regional Sampling Plans	
RCG NA 2017 Recommendation	Establish a pan-regional subgroup on regional sampling plans with the initial remit of compiling a list of the different metrics and criteria that can be used to determine the best sampling scenarios for regional samplings plans. Such a list should detail the metrics and criteria and include the benefits and lost of the different indicators.
Justification	In order to allow an adequate selection between the multiple sampling scenarios presented as outputs from the simulations, RCGs need a clear and agreed list of metrics and criteria to inform any decision.
Follow-up actions needed	1. RCG NA to present the need to RCGNS and to establish a pan regional group to answer this recommendation. 2. This subgroup will be in charge of dealing with the sampling simulations and sampling aspects of a sampling plan. 3. This subgroup to work through the year to compile the list of metrics. In order not to duplicate the work, RCG NA sees that it would be easier for this subgroup to take advantage and support the developments of the FishPi2 project to provide these metrics (it's expected that that project will work on those metrics).
Responsible persons for follow-up actions	RCG chairs, RCGs subgroup regional sampling
Time frame (Deadline)	2018 annual meeting of the RCG NA

3.3. SC-RDB Recommendations on the representation of RCG NA members on the RDB steering group.

RCG NA 3.3: RCG to re-establish representation at the SC-RDB	
RCG NA 2017 Recommendation	RCG NA to re-establish formal representation at the SC-RDB and to improve feedback to RCG members
Justification	Changes in membership of the RCM and limited development of the RDB meant the numbers of participants on the SC-RDB which represent the concerns of the North Atlantic Regions. With the recent investment of resources and time in the development of the RDB and the subsequent decisions required the RCG has failed to keep up with communications and provide proper feedback to the process.
Follow-up actions needed	1. RCG NA to nominate additional representatives to participate on the SC-RDB 2. RCG NA chairs to consult with SC-RDB for clarity on the number participants required from RCG NA at SC-RDB and how the membership would work in the proposed RCG-DBSG 3. RCGs to ensure development of the RDB to meet RCG needs is maintained and that the functionality is not compromised by the RES development. 4. RCG NA Chairs to feedback to members. 5. RCG NA Chairs to nominate further participants if needed.
Responsible persons for follow-up actions	RCG NA Chairs, SC-RDB
Time frame (Deadline)	Ongoing

3.4. Workshop for standardising Métier assignment.

RCG NA 3.4: Workshop to standardise methods of determining métiers from transversal data.	
RCG NA 2017 Recommendation	The RCG NA strongly recommends a data compilation workshop to: 1. Standardise the processes that use trip based transversal data to determine the métier. 2. Consider criteria for aggregating data for different end-users (JRC, ICES and other RFMOs). 3. Investigate a framework for managing métier and fleet descriptions when needed.
Justification	All catch, effort and sample data is uploaded to the RDB by métier and limited to a reference list of RCM agreed métiers defined by ICES area. MS submit their data to ICES on Intercatch disaggregated by métier and the JRC for FDI data calls and other RFMOs also request the data by métier without reference to the RCM agreed list of métiers. MS have independently developed their own code and processes for calculating species assemblage and rules for merging métiers. This is initially based on the transversal data for a trip which may or may not cover more than one métier. These methods are not necessarily consistent between countries and even between agencies within countries and could be based on, for example, a foreshortened list of species assemblages; rules for particular gears; catch by weight and or value and relative ratios. The impact of the different methods is not known but as data is being compared more readily at a regional or international level, so as to improve on confidence in current assumptions simple rules and standards need to apply. Since 2009 RCMNA has regularly recommended MS provide, maintain and update fleet descriptions for all sampled métiers to better define and compare similar fleets and the sampling of them between nations. This has been only moderately successful with no clear repository for them. ICES Expert Working Groups are now also requesting fishery and métier descriptions as part of their data calls. A repository and better strategy is required for collating and maintaining MS descriptions.
Follow-up actions needed	RCGs to establish a pan regional cooperative team of RCG members and end users; to consult with end users and data providers; establish a workshop; to provide terms of reference and identify a venue. ToRs should include: 1. to review current algorithms and processes for allocating a trip to a métier based on catch data. 2. to provide standard guidelines for determining or allocating a trip to a métier or multiple métiers and how to aggregate the data. 3. to define a strategy for storing and maintaining national fishery descriptions relative to the defined métiers.
Responsible persons for follow-up actions	RCGs to establish the team NC, MS and end-users to provide contributors and to implement guidelines

Time frame (Deadline)	2018
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3.5. *Implication of the Landing obligation.*

RCG NA 3.5: <i>Implication of the Landing obligation</i>	
RCG NA 2017 Recommendation	RCM NA recommends that MS continue to account for the additional catch fractions brought about as a consequence of the landing obligation. They need to account for them in their recording of transversal variables and biological data and adapt to the annual updates of the regional discard plans. MS should continue to review, monitor and advise on the impact of the implementation of the landing obligation on sampling catches for biological data, catch data and catch estimates.
Justification	The landing obligation has introduced a new category of catch (Below Minimum Size, BMS) and this fraction of the catch will be reported, sampled and required in any catch estimation. This necessitates that national institutions and ICES through all stages of the recording, storage and estimation processes are able to accommodate this fraction. Apart from in the Baltic there is little data, to date, to be able to analyse the impact of the Landing obligation on the quality of catch estimates and the scale of the issue in other regions can only be perceived. Annual updates of discard plans may change the nature of the fisheries currently being sampled and the data collectors and end-users will need to be live to these changes. As the landing obligation beds in, catch data and other metrics will become more available to assess the impact of the discard plans on catch estimates.
Follow-up actions needed	1. All MS to complete draft monitoring template Annex 14 2. RCG Chairs to appoint pan regional contributors for intersessional work 3. RCG Chairs to submit an early data call in 2018 to allow intersessional analysis of RDB data. 4. Pan regional intersessional group to: a. review 2017 BMS CS and CL data on the RDB and source and review other available metrics (e.g. refusal rates) b. contribute to and review ToRs & outcomes of WGCATCH 2017
Responsible persons for follow-up actions	RCG Chairs, MS, Intersessional Group
Time frame (Deadline)	2018 annual meetings of RCGs

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6 Annexes

Annex 1 – Participants, ToRs and realised agenda of the 2017 RCG NA Annual Meeting

List of participants

Name	Country	email	Participation 2017
Jens Ulleweit	Germany	Jens.ulleweit@ti.bund.de	partial
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Terms of Reference

1. Brief review of progress since 2016 RCM's and 2016 Liaison meeting (11th report).

2. Agree on a governance model for the regional coordination group and develop a roadmap to handle tasks assigned to the RCG in the recast of DCF (2017/1004) and EU-MAP (2016/1251).

How do we prioritize? What resources do we need? We need to think at least 1-3 year ahead and compile a clear workplan to ensure that we get things done. Develop clear ToRs, work content and deadlines for the Intersessional working groups. Which intersessional groups do we need to establish? Which ones should be pan regional vs regional? Role of Liaison meeting.

2.1 Agree and if possible adopt Rules on Procedures for RCG

- Feedback from the intersessional groups and NC meeting. *Code of conduct and/or legal document?*

2.2 Develop processes for end-user Interactions and identification of end-user needs

- Feedback from meeting with ICES,
- Feedback of enduser needs from ICES; *how do we progress? What kind of procedures do we need to be able to address end-user needs in a transparent way?*
- Map current end-user needs
- Produce an overview from the RDB on; 1) regional fisheries and 2) sampling and quality
- Review of 2016 data calls and feedback from the RCGs to endusers

2.3 Roadmap towards regional sampling plan

Review progress since last year report. What can we learn from achievements/ non-achievements since last year, interaction with fishPi?, clear and realistic road-map

2.4 Data quality – what is the role of the RCG?

- Short feedback from ICES (PGDATA, WGCATCH, WGBIOP, WKBIOPTIM, WKSDECC), STECF (EWG 17-04, EWG 17-07) , FishPi1) *What is the role of the different bodies? How do we align the work to avoid duplication?*
- How can we utilize the RDB to improve assessment of quality? Feed back from RDB-SC on new format, Feedback from ICES, Upload logs. Gaps in the data. How can we make use of the RDB to answer data calls, AR, etc – develop output (R scripts)

2.5 Surveys

- Cost sharing models in surveys
Feed back from the intersessional group - How do we progress – recommendation to future cost sharing
- Evaluation and updating the list of mandatory surveys to be held end of year (STECF EWG 17-14): what input can RCGs provide for this EWG?

2.6 Diadromous species

Review progress since last year report. If possible agree on designated rivers and eel management units to be sampled. **NOTE. Experts on eel and salmon from NS&EA and NA to be present in RCG Baltic. Webex to be set up with other RCGs if necessary.**

Quality assurance framework. Evaluation of sampling.

3. Landing obligation

How does the landing obligation impact sampling of fisheries and quality of data (sampled data and transversal). Feed back from the intersessional work.

4. Standardisation and reference lists

- Compare the list in annex 10 with the surveys used in stock assessment from ICES and highlight the surveys in annex 10 from the DCF, but not (presently) used in any stock assessments.
- Prepare table 1A identify gaps and discrepancies (request from STECF EWG 17-04).
- Collate and review other reference lists (harbours, metiers)
- Store reference lists in a common place.
- Standard guidance.

5. Next venue and chairs

6. AOB

Realised Agenda

Monday 4th of September

13:00-18:00 with coffee break around 15.30h

1. Meeting Logistics and Adoption of Agenda

Welcome and logistics	Leonie
Introduction of participants	All
TOR's and Agenda, Subgroups, Plenaries, Report format, Rapporteurs for plenaries	Jon

2. Review of progress since 2016 RCM's and 2016 Liaison meeting (11th report)

Review agreements and recommendations from RCMS and Liaison meeting 2016	Jon
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3. RCG governance- Rules on Procedures

Outcome of intersessional subgroup on Rules on Procedures, Plenary discussion with possible adoption and/or amendments	Leonie Rapporteur TBD
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Tuesday 5th of September

9:00-13:00 with coffee break around 10.30h

14:00-18:00 with coffee break around 15.30h

4. RCG governance and roadmap to handle tasks assigned in the recast of DCF (2017/1004) and EU-MAP (2016/1251).

AM Plenary:

Outcome from relevant subgroups and relevant ICES groups	
ICES RCG chairs meeting	Leonie
ICES & STECF groups (PGDATA (AF), WGCATCH (JR), WGBIOP (LWC), WKBIOPTIM (AF))	
Enduser feedback (ICES)	Lotte
IEOMSG	Sven
~~Data Quality STECF – Thursday morning~~	~~Jon~~
RCG Survey group	Sieto
RCG Data analysis group	Alistair
SC-RDB & RDB status	Lotte

PM Plenary:

RCG Survey group	Sieto
SC-RDB & RDB status	Lotte

Subgroup work:

governance model and road map- see below for proposed subgroups and their tasks

Wednesday 6th of September

9:00-13:00 with coffee break around 10.30h

14:00-18:00 with coffee break around 15.30h

Social Event 19.00h ☺ Bus at 17.15h

4. RCG governance and roadmap cont.

AM Plenary:

Re-introduction
Preliminary outcome from the subgroups

Continuation of work in subgroups

3. RCG governance- Rules on Procedures

National Correspondents

PM Plenary: Times to be confirmed. Dial ins to be set up

5. Recreational Fisheries (30 mins) Scheduled time: 1400 Estanis
WebEx with Kieran Hyder on enduser needs, pilot studies, regional sampling and databases

Continuation of work in subgroups

Thursday 7th of September

9:00-13:00 with coffee break around 10.30h

14:00-18:00 with coffee break around 15.30h

6. EUMAP & National work plans next steps: Commission & all
AM Plenary discussion: Submission of workplans, reporting, annual report formats (outcome of STECF group) Rapporteur

Continuation of work in subgroups

AM Plenary: outcome from subgroups and subgroup work Proposed time 1100
(Summary/What is still to do/Future intersessional work/Recommendations)

7. Standardisation and reference lists

- Compare the list in annex 10 with the surveys used in stock assessment from ICES and highlight the surveys in annex 10 from the DCF, but not (presently) used in any stock assessments.
- Prepare table 1A identify gaps and discrepancies (request from STECF EWG 17-04).
- Collate and review other reference lists (harbours, metiers)
- Store reference lists in a common place.
- Standard guidance.

4. Landing obligation

Feedback from RCG subgroup

Helen

AM Plenary discussion: How does the landing obligation impact on sampling of fisheries and quality of data (sampled data and transversal). Rapporteur

3. RCG governance- Rules on Procedures

PM plenary session

8. Diadromous species (30 mins) Scheduled time: 1400 Alan
WebeX with Baltic: Review progress since last year report. If possible agree on designated rivers and eel management units to be sampled. NOTE. Experts on eel and salmon from NS&EA and NA to be present in RCG Baltic. Webex to be set up with other RCGs if necessary.
Quality assurance framework. Evaluation of sampling.

Continuation of work in subgroups - drafting text (*incl. ToRs for intersessional work and recommendations*)

7. Outcome from Subgroups, review agreements, review text (Rules on Procedures, Task sharing)

PM plenary session

8. Next venue and chairs

PM plenary session

9. AOB

PM plenary session

Friday 8th of September

9:00-13:00 with coffee break around 10.30h

10. Compile and review recommendations; review text

AM Plenary Session

Proposed Subgroups and their tasks:

Enduser needs: Following on from RCG chairs ICES meeting. Processes for end-user Interactions and identification of end-user needs, Map current end-user needs; Produce an overview from the RDB on; 1) regional fisheries and 2) sampling and quality/ Review of 2016 data calls and feedback from the RCGs to endusers); Standardisation and reference lists: Storage of reference lists in a common place; Standard guidance.

How do we progress? What kind of procedures do we need to be able to address end users needs? What tools do we need - forum. Programme for 2018.

Roadmap towards regional sampling plan: Review progress since last year report. What can we learn from achievements/ non-achievements since last year. Opportunity for interaction with Son of fishPi? Develop clear and realistic road-map. How do we progress this...

Data quality: What is the role of the different bodies and organisations, ICES PGDATA, WGCATCH, WGBIOP, WKBIOP, WKSDECC; STECF? How do we align the work to avoid duplication? How can we utilize the RDB to improve assessment of quality? Feedback from RDB-SC on new format, Feedback from ICES, collate and review Upload logs. Gaps in the data. How can we make use of the RDB to answer data calls, AR, etc – develop output (R scripts). Standardisation and reference lists: Prepare table 1A identify gaps and discrepancies (request from STECF EWG 17-04); Collate and review other reference lists (harbours, metiers). How do we progress this...

Surveys: *How do we progress with task sharing models in surveys/ draft or amend recommendation to future task sharing;* Evaluation and updating the list of mandatory surveys to be held end of year (STECF EWG 17-14): what input can RCGs provide for this EWG? Standardisation and reference lists: Compare the list in annex 10 with the surveys used in stock assessment from ICES and highlight the surveys in annex 10 from the DCF, but not (presently) used in any stock assessments.

Landings Obligation: How does the landing obligation impact sampling of fisheries and quality of data (sampled data and transversal); potential data analysis of BMLS by country from RDB entries.

Annex 2 – Review progress since 2016 RCM's and 2016 Liaison meeting (13th report).

Recommendations were sorted by subject type and only those highlighted in grey were addressed by the LM. Response by the RCG NA on progress is highlighted in red text.

1. RCMs transition to RCGs

LM 2. RCM Baltic 2016. Determine Generic and Regional Terms of Reference	
RCM Baltic 2016 Recommendation 2	The RCM Baltic recommends that the Commission approves a limited number of general and regional terms of reference.
Justification	The list of ToRs submitted by the COM to the RCMs is usually too long, unspecific and overloaded. MS feel that the meetings therefore are ineffective and that there is not enough time to discuss and decide on regional issues.
Follow-up actions needed	The Commission should provide a feasible number of general and regional terms of reference.
Responsible persons for follow-up actions	The Commission.
Time frame (Deadline)	Prior to the first RCM in 2017.
LM Comments	LM is of the opinion that the Chairs are to decide the ToRs and consider input from MS and the Commission but to prioritise
RCG NA 2017 Comments	RCG chairs agreed ToRs and distributed them to NC but no formal feedback mechanism. NCs did not necessarily know they could feedback. Not in Rules and Procedures draft.

LM 3. Establishing an EU-MAP web repository for RCGs	
RCM NS&EA 2016 Recommendation	RCM recommends that the Commission sets up a web-based repository for use by each RCG.
Justification	There is an urgent need for an EU-MAP web-based repository for RCGs to archive files documenting the process of collaboration with end users, decisions made and actions arising, in addition to documenting the wide range of other activities foreseen and other materials and resources needed for the RCGs to function. This is needed to ensure transparency as well as facilitating RCG work programmes. A JRC repository exists at https://datacollection.jrc.ec.europa.eu/docs-links but the RCM would prefer separate sites for individual RCGs to use.
Follow-up actions needed	RCM NS&EA to contact Commission.
Responsible persons for follow-up actions	RCM NS&EA and Commission
Time frame (Deadline)	Set up web links and access protocols in advance of establishment of RCGs in January 2017.
LM Comments	LM endorses this recommendation however JRC has not the resources to manage this. RCG Chairs should consider also other options available (e.g. CIRCA) as a forum.
RCG NA 2017 Comments	No progress There is a requirement for standard reference lists for public access. External European list rather than ICES RCG sharepoints. JRC data collection site is already available.

LM 4. RCM NA 3: Pan-regional intersessional work	
RCM NA 2016 Recommendation	The RCM NA strongly recommends the continuation of the pan regional intersessional work groups already proposed • Cost sharing of funding surveys • Impact of landing obligation • Reviewing the ICES list of data needs as input for designing regional sampling plans. • Review and follow-up on upload logs and adopt further intersessional work groups • Rules and procedures • RDB Data analysis subgroup • Regional Sampling
Justification	This intersessional work will facilitate the transition from RCMs to RCGs. Setting up these task groups will establish common working procedures between

	multiple RCGs, prepare ground for future cooperation on a supra regional level and develop the work that is needed to fulfil future coordination tasks in the broad sense. These groups will work on analysis and development and allow the core of the RCG meetings to review the work, plan and progress any regional coordination.
Follow-up actions needed	All RCM Chairs to consider ToRs, contributors and provide assistance where required. (RCM LDF, Baltic, NSEA, NA and MED)
Responsible persons for follow-up actions	RCM Chairs - RCM LDF, Baltic, NSEA, NA and MED
Time frame (Deadline)	December 2016
LM Comments	LM endorses this recommendation (also reflected in LM report – section 2.5)
RCG NA 2017 Comments	Ongoing some established most have started but governance ambiguous. Regional Sampling group has not progressed. DGMARE – tenders will help progress the regional sampling work. Liason may need to have a coordinating role for some of the pan regional work.

LM 5 RCM NA 9: RCG status	
RCM NA 2016 Recommendation	The RCM NA recommends the commission to clarify the status of the RCGs (and their subgroups), their obligation, decision making rules and procedures under the DCF recast.
Justification	The DCF recast will refer to RCGs role and function if not directly. The pan-regional or supra-regional intersessional groups will not be mentioned per se but the RCGs may need to devolve some of the decision making to them. The responsibility might remain with the RCGs but the status and responsibility of the appointed Intersessional Groups will need clarification. There is a particular need to clarify the applicability of the Commission Decision “establishing horizontal rules on the creation and operation of Commission expert groups” to regional groups and sub-groups (e.g. with respect to appointing chairs, decision making, etc.).
Follow-up actions needed	Commission to provide clarification
Responsible persons for follow-up actions	Commission
Time frame (Deadline)	RCMs 2017
LM Comments	This has been covered in a question to the commission in relation to Rules and Procedures (see section 6.1 of the LM Report)

RCG NA 2017 Comments	Further clarification required.... DCF expert group (NCs/MS reps)?
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2. Data calls

RCG NA 2017 Comments : None applicable

3. Databases and data strategy

RCM NA 6: Upload logs	
RCM NA 2016 Recommendation	The RCM NA strongly recommends that: 1. Upload Logs continue to form part of the data call for the RDB and require submission by all MS whether they are able to upload data or not. 2. An Intersessional Group is given sufficient time to review Upload Logs to qualify the data, report and distribute actions or advice to MS, RCMs and the RDB administrator to ensure the quality of data on the RDB is maintained and improved and end-users are aware of the limits to the data.
Justification	The development of the RDB is an ongoing process which has to be enhanced based on user's feedback. There are still inconsistencies and errors in the data on the RDB that have been caused by the IT system design itself, by non-restrictive reference lists or due to insufficient data checks by MS. Data gaps and limit the potential for data analysis and delays RDB use in the regional coordination process. The completion of an Upload log was included in the data calls for the RCM 2015 and 2016 and was to be completed so that users can assess the limitations of the data and therefore what interpretations or analysis can be done with it. The RDB will be developed to record the status of the data within it, but until this feature is available a standard log submitted at the time of each data call can provide RCGs and data users with a simple reference to what data is not on the system as well as what is. Intersessional work is required to review the issues listed in the upload logs, qualify them and identify actions and the responsible body (RCM, RDB administrator and SC-RDB, or MS) that can deal with them. This intersessional work is pan regional.
Follow-up actions needed	1. RCM Chairs to appoint pan regional contributors for intersessional work. 2. Intersessional group to report on 2016 upload logs a. Identify a clear communications strategy b. Identify actions and responsible bodies c. Communicate these actions d. Collate responses

	3. RCM chairs to include an updated upload log in data call 2017 and, when relevant ask MS to consider reload their data.
Responsible persons for follow-up actions	RCM Chairs, Intersessional group, MS, RDB administrator
Time frame (Deadline)	RCMs 2017
RCG NA 2017 Comments	See LM3. RCG NA 3: <i>Pan-regional intersessional work</i>. SC-RDB did review the upload logs so there should be some communication to RCGs about what they need to do...

RCM NA 8: <i>Data analysis subgroup</i>	
RCM NA 2016 Recommendation	RCM NA recommends that a data analysis subgroup is established to facilitate intersessional work of the RCMs
Justification	Increasingly the work of the RCM RCG can be and needs to be supported by work that utilises regional data. This can often be achieved very efficiently using open source software such as R, operating on common data formats as has been demonstrated in the COST project and the fishPi project.
Follow-up actions needed	RCG Chairs to identify a task leader. Task leader to establish mailing list of any and all interested individuals. RCG chairs to consider role, operation, remit, time commitments, if necessary funding, of the work of such a group, and to begin a dialogue with interested parties.
Responsible persons for follow-up actions	RCG Chairs, Task leader
Time frame (Deadline)	Intersessionally 2016-2017
RCG NA 2017 Comments	See LM 4 RCG NA 3: <i>Pan-regional intersessional work</i>

LM 12. RCM NA 10: Foreign Landings	
RCM NA 2016 Recommendation	RCM NA recommends that: 1. MS upload their samples of non-flag vessels (foreign landings) to the RDB. 2. The WKCATCH investigate suitable methods for estimating non Flag landing fractions.
Justification	27% of landed tonnages are by foreign vessels landing into countries other than their own flag country. Follow up work from previous recommendations on foreign landings have demonstrated that the RDB has the facility to hold non flag vessel sampling data. MS should therefore upload any and all foreign landings they collect.
Follow-up actions needed	RCG Chairs to put out a data call. MS to upload their samples of non-flag vessels (foreign landings) to the RDB. WKCATCH investigate suitable methods for estimating non Flag landing fractions.
Responsible persons for follow-up actions	RCG Chairs, MS and WGCATCH
Time frame (Deadline)	2017
LM Comments	LM endorses this recommendation and this needs to refer to ICES to be included in the ToRs
RCG NA 2017 Comments	Will review communications and template for WGCATCH to be circulated to MS before WGCATCH 2017.

4. Communications and end users needs

LM 14. RCM Baltic 2016. Request towards ICES to comment on data needs from RCM/RCGs	
RCM Baltic 2016 Recommendation 3	The RCM Baltic recommends that ICES as a data end user produces a request to the RCM/RCGs about the data and the analyses that ICES really needs, on a stockwise level.
Justification	The EU MAP annual work plan template requires that end users have defined variables that are to be collected. Presently, such a request from ICES as a major end user is still pending.
Follow-up actions needed	ICES to submit request to the member states.
Responsible persons for follow-up actions	The commission to approach ICES
Time frame (Deadline)	Prior to the first RCG in 2017.
LM Comments	LM endorses this recommendation and combines it with RCMNSEA recommendation about communicating with ICES (see below). This affects all RCGs. In the short term this is available in the ICES data calls and will be available from other RFMOs.
RCG NA 2017 Comments	RCG chairs meeting March 2017. Proposed feedback mechanism with ICES.

Collaboration with ICES on data needs	
RCM NS&EA 2016 Recommendation	RCM recommends an initial meeting with ICES to establish the process of collaboration and the roles and responsibilities for addressing ICES data needs as an end user of data collected through regional data collection schemes within remit of the RCM/RCG.
Justification	The EU-MAP is intended to have greater end-user input on aspects of data collection. ICES is a major end user of data collected through regional data collection schemes within the remit of the RCMs. There is currently no clear process for ICES and other end users to communicate and justify proposals for new data collections or amendment of existing data to meet their needs. There is an urgent need for ICES to collaborate with RCGs to establish a well-defined annual process for: (i) identifying and documenting data deficiencies and new data needs, (ii) exploring how data collection can be best modified where feasible, and (iii) identifying the actions needed to design, evaluate, implement and monitor the new or modified data collection schemes. An initial meeting is needed to scope out options for this.
Follow-up actions needed	RCM NS&EA to contact ICES secretariat to arrange initial meeting by webex / skype.
Responsible persons for follow-up actions	RCM NS&EA and ICES secretariat
Time frame (Deadline)	October 2016 to establish initial webex between RCG subgroup and ICES
LM Comments	This recommendations was combined for endorsement with the recommendation No 3 of the RCM Baltic (See above).

5. Task sharing agreements

LM 16. RCM NA 4: <i>Cost sharing</i>	
RCM NA 2016 Recommendation	RCM NA recommends that any future costs and/or task sharing agreements across RCGs should be agreed by all MS and have a strong legal basis, so that there is no ambiguity for implicated member states on whether the agreements are to be implemented. The scope for exemptions beyond the thresholds and the opportunity for trade-offs needs to be considered in these agreements to help manage any increased burden on individual member states.
Justification	Previous cost sharing agreements at RCM level have not been implemented by all member states involved as the legal basis was ambiguous. While there are clear legal obligations outlined in the DCF recast in relation to task and cost sharing, the agreed methods of how these are implemented, now also need to have a legal basis.
Follow-up actions needed	Commission to consider and provide support for this. Intersessional Group to investigate, promote and advise on this.
Responsible persons for follow-up actions	Intersessional group, Commission
Time frame (Deadline)	RCMs 2017
LM Comments	Recognizing the rationale behind this recommendation, the LM notes however, that expected outcome requires a firm legal basis and, as such, goes beyond the competence of the LM. This issue was however, addressed to the Commission at the meeting (see sections 2.5 and 6.1 of the LM Report)
RCG NA 2017 Comments	Intersessional Surveys subgroup considered this but still legal status needs to be clarified by the commission....

RCM NA 11: <i>Maintenance of existing bilateral agreements</i>	
RCM NA 2016 Recommendation	RCM NA recommends that, where required, formal bilateral agreements set up for the period from 2014-2016 are carried forward until regional sampling plans are agreed.
Justification	The investigation and implementation of new regional sampling plans may change what is expected of MS in terms of delivery to a regional programme. Costs sharing, the exchange of expertise and the sampling of foreign landings will all feed into the success of these plans and multi-lateral agreements will be needed. Current

	agreements meet the requirements of current national sampling schemes. To reduce the administrative burden on member states of setting up new bilateral agreements for 2017+ it is recommended that current bilateral agreements are maintained until new regional sampling plans are finalised and agreed.
Follow-up actions needed	Commission to agree MS to maintain current contributions to these agreements
Responsible persons for follow-up actions	Commission MS
Time frame (Deadline)	2017 on
RCG NA 2017 Comments	Until regional sampling plans are agreed MS have continued to maintain these agreements. Considered by the Regional Sampling subgroup – two distinct areas task sharing and bilateral agreements.

5. EU MAP revisions

LM 18. RCM NA 12: EUMAP Table 10 survey list revisions	
RCM NA 2016 Recommendation	<i>RCM NA recommends that the list of mandatory surveys on table 10 of EUMAP Decision 2016/1251 are reviewed at a dedicated STECF EWG based on updated and predefined criteria. This should also include a review of the target stock/species listed in table 10.</i>
Justification	The list of mandatory survey included in Table 10 of Implementing Decision 2016/1251 is based on the old DCF regulation. A review needs to take place prior to the application of cost sharing models to ensure that the list of mandatory surveys is current and includes the appropriate target stocks/species.
Follow-up actions needed	Commission to setup a dedicated EWG to respond before the resubmission of National Work Programmes for 2018
Responsible persons for follow-up actions	Commission, STECF
Time frame (Deadline)	September 2017
LM Comments	LM endorses this recommendation
RCG NA 2017 Comments	Ongoing. Still stands.

7. National Work Plan Template

RCM NA 1: Annual work plans

RCM NA 2016	<i>The RCM NA strongly recommends that:</i>
Recommendation	1. <i>The commission and STECF, in their evaluation of MS Annual Work Plans submitted in 2016, take into account the concerns, the proposed solutions, and suggested evaluation criteria detailed in the first draft of RCMNA 2016 report ANNEX XXX</i> 2. <i>MS should complete these tables fully as best they can and where they perceive there is ambiguity in what is required explain their choice in the comments or text box for that section.</i>
Justification	It was clear during a detailed review and discussions at RCMNA 2016 that the completion of the WP template in some instances is open to interpretation and further guidance is required. Where there was consensus between MS there should be some consistency in their completion but where there was not, it may make the job of evaluating the returns difficult. For example, completing section 4 will differ depending on the sampling schemes which could range from adhoc random quota based sampling to pure statistically sound sampling schemes. Any evaluation of compliance and science this year should take this into account. This year's evaluation process is an opportunity to catalogue best practice and improve on the guidance for next year's submission of the 2018 Work Programme and the evaluation in 2017.
Follow-up actions needed	MS to complete templates before the deadline. STECF to consider the RCM issues in their evaluation. STECF and the commission to provide clearer guidance and better examples for 2018 Work Programme and Technical reports
Responsible persons for follow-up actions	NC, Commission
Time frame (Deadline)	November 2016, WP evaluation
RCG NA 2017 Comments	Done. Commission was responsive and appear keen to improve tables and guidelines. However how these will affect the next round of submissions and there has been little correspondence since the last evaluation. Feedback from Venetia...

LM 19. RCM MED&BS – LP 2016 WP Recommendation N	<u>Table 1E: Anadromous and catadromous species data collection in fresh water</u> RCM Med&BS 2016 agrees with the decision reached during the GFCM meeting held during the Joint ICES\EIFAAC\GFCM Working Group on Eels (WGEEL); to have a pilot study including at least one or two representative EMUs with river basins. Furthermore, RCM Med&BS 2016 recognizes the difficulty of covering all
Justification	The main scope of this pilot project would be to study the recruitment of glass and yellow eel and devise the methodology to be adopted for data collection about these species. Consecutively, data collection will be extended to the rest of the EMUs.
Follow-up actions needed	MS are to perform a pilot study taking at least one or two EMUs into consideration during the first year of data collection (2017). Sampling is then to be extended to the rest of the EMUs, with the possibility of sub-sampling if
Responsible persons for follow-up actions	MS, LM
Time frame (Deadline)	End of December 2017
LM Comments	LM is concerned that this is not in line with EUMAP. Therefore, before setting a pilot study as recommended above, MS concerned shall clarify the legal aspect of this issue with the Commission.
RCG NA 2017 Comments	Feedback required from diadromous species subgroup

8. Landing obligation

RCM NA 5: Implication of the Landing obligation	
RCM NA 2016 Recommendation	RCM NA recommends that MS continue to account for the additional catch fractions brought about as a consequence of the landing obligation. They need to account for them in their recording of transversal variables and biological data and adapt to the annual updates of the regional discard plans. MS states should continue to review, monitor and advise on the impact of the implementation of the landing obligation on sampling catches for biological data, catch data and catch estimates.

Justification	The landing obligation has introduced a new category of catch (Below Minimum Size, BMS) and this fraction of the catch will be reported, sampled and required in any catch estimation. This necessitates that national institutions and ICES through all stages of the recording, storage and estimation processes are able to accommodate this fraction. Apart from in the Baltic there is little data, to date, to be able to analyse the impact of the obligation on the quality of catch estimates and the scale of the issue in other regions can only be perceived. Annual updates of discard plans may change the nature of the fisheries currently being sampled and the data collectors and end-users will need to be live to these changes. As the landing obligation beds in, catch data and other metrics will become more available to assess the impact of the discard plans on catch estimates.
Follow-up actions needed	1. All MS to complete draft monitoring template ANNEX XXX 2. RCM Chairs to appoint pan regional contributors for intersessional work 3. RCM Chairs to submit an early data call in 2017 to allow intersessional analysis of RDB data. 4. Pan regional intersessional group to: a. review 2016 BMS CS and CL data on the RDB and source and review other available metrics (e.g. refusal rates) b. contribute to and review ToRs & outcomes of WGCATCH 2016
Responsible persons for follow-up actions	RCM Chairs, MS, Intersessional Group
Time frame (Deadline)	RCMs 2017
RCG NA 2017 Comments	Referred to above LM3....

9. Workshops and pilot studies

LM 20. RCM NA 2: <i>Assigning trips to métier</i>	
RCM NA 2016	The RCM NA strongly recommends a data compilation workshop to:
Recommendation	1. Standardise the processes that use trip based transversal data to determine the métier. 2. Consider criteria for aggregating data for different end-users (JRC, ICES and other RFMOs). 3. Investigate a framework for managing métier and fleet descriptions when needed.
Justification	All catch, effort and sample data is uploaded to the RDB by métier and limited to a reference list of RCM agreed métiers defined by ICES area. MS submit their data to ICES on Intercatch disaggregated by métier and the JRC for FDI datacalls and other RFMOs also request the data by métier without reference to the RCM agreed list of métiers. MS have independently developed their own code and processes for calculating species assemblage and rules for merging métiers. This is initially based on the transversal data for a trip which may or may not cover more than one métier. These methods are not necessarily consistent between countries and even between agencies within countries and could be based on, for example, a foreshortened list of species assemblages; rules for particular gears; catch by weight and or value and relative ratios. The impact of the different methods is not known but as data is being compared more readily at a regional or international level, so as to improve on confidence in current assumptions simple rules and standards need to apply. Since 2009 RCMNA has regularly recommended MS provide, maintain and update fleet descriptions for all sampled métiers to better define and compare similar fleets and the sampling of them between nations. This has been only moderately successful with no clear repository for them. ICES Expert Working Groups are now also requesting fishery and métier descriptions as part of their data calls. A repository and better strategy is required for collating and maintaining MS descriptions.
Follow-up actions needed	JRC or ICES to setup a transversal data workshop: 1. to review current algorithms and processes for allocating a trip to a métier based on catch data. 2. to provide standard guidelines for determining or allocating a trip to a métier or multiple métiers and how to aggregate the data. 3. to define a strategy for storing and maintaining national fishery descriptions relative to the defined métiers.
Responsible persons for follow-up actions	ICES or JRC to set up workshop NC and MS to provide contributors and to implement guidelines
Time frame (Deadline)	3 years

LM Comments	Liason endorses this recommendation but the RCGs should consider how this is best progressed. RCGs should provide ToRs and a formal proposal for a joint JRC ICES series of workshops.
RCG NA 2017 Comments	Is the remapping work useful. A workshop could be proposed by the RCG if necessary. If we need to refer to métier there does need to be consistency between and within MS. To be looked at in Regional Sampling subgroup

Annex 3 – Review of pertinent points from expert groups related to regional coordination

The main points relating to regional cooperation from expert groups were presented to plenary, the executive summaries and or key points are reproduced below:

PGDATA

Executive summary

The Planning Group on Data Needs for Assessments and Advice (PGDATA), meeting was hosted in Nantes in France from the 7–10 of February 2017. Eighteen experts from eleven countries participated to the meeting chaired by Joel Vigneau, France, and Ma-rie Storr-Paulsen, Denmark.

The main output of the meeting was an evaluation of the 2017 ICES EG data call, where the PROXY data call on length data from data limited stocks was included. The audit included redefinition of some variables, mainly concerning the landing obligation and clarification of the proposed text. The process was thought to be very useful as the data provider had not earlier been involved in the process of committing on the data call but merely been trying to comply on their own with the data call text. It was however thought that the involvement of PGDATA earlier in the process could improve the process, as the data call deadline prevented the needed review thoroughness. Further, the meeting focused on finalizing the ToRs for the workshop on BIOPTIM and establish the work process and preparation for the workshop. The BIOPTIM aims to look at ways in which biological parameters obtained from sampling commercial catches can be op-timized so that the time and money spent on sampling can be effectively justified in terms of providing quality information to end-users. The aim is to develop an R tool-box which can be used by national labs to quantify the effects of different sampling intensities and sampling designs, and support discussions on the advantages and disadvantages of different sampling strategies in terms of time and cost savings. As part of the improvement of the data quality on biological parameters (mainly otoliths) PGDATA and WGBIOP developed a roadmap for implementing the SmartDots soft-ware developed by ILVO to replace WebGR as the regional/European system for oto-lith age reading and possible maturity classification. Further development in spring 2017 will make it possible for SmartDots to be integrated in a web platform provided by ICES. PGDATA 2017 also finalised the guidelines for the data compilation workshops taking into account the feedback from the 2016 benchmark data evaluation meeting for the Irish Sea (WKIRISH2) and Kattegat cod (WKBALT), and streamlining the benchmark process even further by updating the issue list template that are normally populated by the assessment working groups. In order to increase the data quality and communication between the expert groups and data providers, PGDATA suggested a further development and maintenance of the Data Quality Assurance Repository. The idea is to structure in the Repository all the work done, within the different technical workshops, on data quality and best practices, thereby avoid that scientist from national institutes, or from other working groups, having to read through all the reports in order to find the relevant guidelines.

WGCATCH

Executive Summary

The Working Group on Commercial Catches (WGCATCH), chaired by Hans Gerritsen, Ireland, and Nuno Prista, Sweden, met in Oostende, Belgium, 7–11 November 2016. The meeting was attended by 35 members from 21 institutes and 19 countries.

One of the main responsibilities of WGCATCH is to ensure the quality of commercial catch data, which underpins stock assessments and advice. In order to achieve this, the group documents sampling schemes, establishes best practice guidelines and provides advice on the uses of commercial fishery data. The group also evaluates how new data collection regulations, or management measures, may alter the way data needs to be collected and provides guidelines about biases and disruptions induced in time-series of commercial data.

This year the group addressed a broad range of subjects:

Commercial catch or landings per unit effort indices (CPUE/LPUE): The derivation of commercial CPUE/LPUE data series in the ICES community generally does not follow best practice. In many cases the data series are used as relative abundance indices to inform stock assessment and advice without standardisation to remove, as far as possible, temporal and spatial variation due to factors other than fish abundance. Additionally, procedures used to derive CPUE/LPUE indices are often poorly documented in ICES stock annexes and working documents. WGCATCH developed guidelines on what should be documented and considered when commercial fishery CPUE/LPUE indices are developed and used in stock assessment. A workshop on standardisation of CPUE/LPUE is proposed.

WGCATCH's documentation of national sampling designs: WGCATCH reviewed the new tables for completion by EU Member States to document their work programmes under the EU Multiannual Programme (EU-MAUP) for the collection, management and use of data in the fisheries and aquaculture sectors. The tables on sampling of commercial catches were reviewed to examine if they provide statistical indicators and descriptions that would allow WGCATCH to assess the statistical merits of the sampling programme and provide routine documentation of sampling schemes. WGCATCH found that while significant progress has been made towards documenting the sampling designs, some modifications will be necessary for them to be useful for routine documentation of sampling designs for WGCATCH purposes.

STECF FDI data call: The participation of the European Commission's Joint Research Centre (JRC) at the WGCATCH meeting provided an opportunity to communicate some concerns of the group over the use of the data held by JRC as a result of the 'Fishery Dependent Information' (FDI) data calls (formerly 'effort' data calls) issued by the Commission's Scientific, Technical and Economic Committee on Fisheries (STECF). The outcome of this discussion was a new data format for the data call which accounts for the limited resolution of sampling data.

Landing obligation: The group reviewed the impact of the landing obligation (LO) on sampling and on the quality of stock assessment data. The overall impression is that there is only partial compliance with the requirements. Data collection and estimation under the landing obligation could potentially be very problematic in terms of high refusals (biased estimates), observer effects on sampled trips and missing sampling some components of the landings (under MCRS). WGCATCH (2014) issued several recommendations of best practice in data logging and reporting under the landing obligation and proposed analyses to examine how the implementation of the LO is affecting the sampling programmes and data collection. MS are advised to adopt them so that losses in data quality provided for assessment during the transition period are minimised.

Participation in the ICES advisory process: WGCATCH does not provide advice for fishery management but has the goal of actively contributing to the ICES stock assessment benchmark process and ensuring that the quality of commercial catch data is more widely considered in the

assessment process. WGCATCH discussed the historical difficulties that expert groups dealing with catch sampling (WGCATCH and other related groups such as the Planning Group on Commercial Catches, Discards and Biological Sampling and the Planning Group on Data Needs for Assessments and Advice) have had when engaging with assessment EGs. WGCATCH concluded that preparing specific working documents on fishery data quality for assessment and/or benchmark meetings could be the most efficient way of increasing participation in the advisory process. A workshop to develop and test this approach is proposed by WGCATCH.

Small-Scale Fisheries data: WGCATCH drafted best practice guidelines for collection of transversal variables and biological data in small scale fleets. The usefulness of some new technologies such as remote electronic monitoring by CCTV and vessel position recording by AIS/GPS in monitoring SSF was also evaluated.

Protected Endangered and Threatened Species (PETS): WGCATCH concluded that there is need for joint work with the ICES Working Group on Bycatch of Protected Species (WGBYC) on the design of pilot studies to monitor incidental bycatch which are being planned under the EU MAUP and on estimation of incidental by-catches. Two joint WGCATCH/WGBYC workshops are proposed: one in 2018 on the design of dedicated sampling schemes on the monitoring of protected species and a second one in 2019 on the estimation of incidental bycatch rates and raising from sampled vessels to fleet level.

Regional Data Base (RDB): The ICES council has allocated 135.000 EUR on a two-year project to develop a new RDB which will hold national fishery sampling data and the information on sampling design and achievement needed to implement statistically-sound estimation methods. WGCATCH was requested to provide advice for this development by documenting and approving the estimation methods for incorporation in the RDB. WGCATCH decided on an intersessional workshop that will test the documentation of sampling designs and estimation methods and attempt to produce InterCatch-type estimates using the RDB format as a starting point.

Intersessional workshops for 2017: WGCATCH has identified intersessional WGs and training courses as the best means to ensure intersessional progress in areas of relevance for ACOM. The outcomes of these will be reviewed annually during the WGCATCH meeting. The following workshops and training courses are proposed for 2017: 1) Workshop on Sampling Design and Estimation of Commercial Catches (WKSDECC I), 2) Workshop on Optimization of Biological Sampling at Catch-Sample Level (WKBIOPTIM), 3) Workshop on methods for developing fishery-dependent indices of abundance for use in stock assessments (WKCPUE).

WGBIOP

Executive Summary

This was the third year for the multi-annual Terms of References (ToRs) for the Working Group on Biological Parameters (WGBIOP). The group met in Cagliari, Sardinia, Italy, 2–6 October 2017. The overall aim for WGBIOP this year was to review the status of current issues, achievements and developments that falls under the remit of WGBIOP, identify future needs in line with the ICES objectives and Science Plan and the wider marine environmental monitoring and management within Europe and propose a future/alternative work plan.

ToR a) continued in the task of identifying broad sets of new and existing biological parameters that are emerging as critical components of modern assessment. This work is based on a literature review, input from experts, and collaboration with other ICES Working Groups.

ToR b) further dealt with the issue lists for upcoming benchmark species from 2018 and beyond and formulated the Quality indicators for biological parameters. Guide-lines for qualitative evaluation of biological parameters and a flow scheme from data collection to stock assessment were also produced.

ToR c) was a generic ToR for the group handling the reviewing of calibration exercises on biological parameters, their outcomes and recommendations for such actions. All the tables containing detailed information about national experts' contacts, stocks handled and techniques used in age reading, were updated and greatly improved. In addition, the guidelines for age reading and maturity exchanges/workshops were updated following the learned experienced from occurred inter-calibration exercises. The WGBIOP Data Quality Assurance Repository (<http://ices.dk/community/Pages/PGCCDBS-doc-repository.aspx>) is an open source containing all this kind of information and related reports traced back in time.

Under Tor d) a web meeting was held between ICES Secretariat and WGBIOP in order to endorse the implementation of a new template for categorizing the nature of the recommendations and facilitate an operational recommendation-system. This template, integrated into the already existing fields of the ICES database, clarifies the structure of recommendations and the tasks of each participant in the recommendation system facilitating swift and effective replies.

The major focus within ToR e) was on SmartDots, a new software developed by ILVO (Belgium) and taken on board by ICES. A proof of concept of the SmartDots age reading platform was presented during the meeting and received with great enthusiasm. Following the presentations, demonstrations and hands-on time the group officially adopted the SmartDots platform as the tool for age reading exchanges and workshops from 2018 onwards. This tool will facilitate the carrying out and reporting of events related to age reading, making it an easier process with an improved management system for otoliths metadata.

Given that this is the third year of WGBIOP, future needs in line with the ICES objectives and Science plan were identified and a future/alternative work plan was proposed

WKBIOPTIM

Executive Summary

The Workshop on Optimization of Biological Sampling at Sample Level (WKBIOP-TIM), chaired by Ana Cláudia Fernandes (Portugal) and Julie Coad Davies (Denmark) was held in Lisbon, Portugal, 20–22 June 2017. Twenty-two participants from 12 countries within the ICES and Mediterranean communities were represented

The workshop focused on practical aspects of optimization of sampling. Prior to the workshop, two sets of R-scripts were developed that used the current exchange format of the Regional Database (RDB) as input. The first set of scripts is useful for cases where there is considerable a priori evidence of oversampling (e.g. several hundreds of measurements per sample over a relatively short size/age-class range). The script implements simulations of several types of sampling strategies (user defined) and produces a set of graphical and numerical outputs that allow the visualization of the consequences of measuring different number of individuals per sample. The second set of scripts can be used to determine the number of fish, hauls and trips that should be taken without significant loss of precision in the final estimates. In both cases scripts were prepared to use “lengths” as the biological parameter to be analysed but can be extended to other biological parameters, like age distribution or discards.

Participants brought their own case-studies and three subgroups were formed: one that tested the first script (sample level), one that tested the second script (multilevel analysis) and one that discussed quality indicators for length/age frequency data. Workshop time was spent introducing participants to the analyses carried out in the scripts, adapting data inputs to different formats (e.g. length frequency vs. length of individual specimens), debugging coding errors, and running simulations of the case-studies. The outputs of the case-studies were analysed during and after the workshop. In what concerns to quality indicators, some possible indicators that can be used for biological parameters were discussed.

WKBIOPTIM identified considerable margin to reduce the sampling effort in some of the case-studies presented without compromising the quality of the data to be used by the end-users. In what concerns both sample-level and multi-level optimization, the R scripts developed can be used to simulate and analyse a range of different sampling scenarios with the outputs being useful in discussions of improvements to national and regional sampling plans. Following the workshop, concrete reduction in the sample sizes collected for some species have been achieved after dialog with data end-users. Such reductions resulted in time savings and facilitated data collection in other stocks. In what concerns quality indicators for other biological parameters and additional quality indicators for length frequency data, a request for advice was sent to WGBIOP and WGCATCH with the aim of including a large array of indicators in future updates of the R-scripts and better adapt them to a wider array of end-users' needs.

The expansion of the application of the R-scripts to other biological parameters (weights, ages and maturity) is considered of high importance since biological data collection is inherently multivariate and multi-purpose frequently extending far beyond collection of length data. Future developments of the scripts are expected to happen as part of WKBIOPTIM2 which will aim to, among other, include additional biological parameters in the analyses, the integration of additional quality indicators (e.g. effective sample size) and a discussion of the most appropriate balance between them (based on end-users' needs). It is envisioned that a harmonized toolbox of R-scripts and R-vignettes, possibly encompassed in an R package, will ultimately be produced and aid national labs in the planning of their work.

SCRDB

Executive Summary

Until now the SCRDB has consisted of representatives from the RCM Baltic, RCM North Sea and Eastern Arctic, RCM North Atlantic and the ICES secretariat and meets once annually. Non-EU ICES members (Iceland, Norway, Canada, Russia and USA) and the European Commission were invited to participate in the SCRDB 2016 meeting. This SCRDB 2016 meeting was held at the ICES HQ in Copenhagen 29 November – 1 December 2016.

The RDB is the main prerequisite for development of regional sampling programmes, for standardisation of data, and the tool for ensuring transparency and quality assurance of input data for stock assessment, and for the management of the marine living resources by the EU and non-EU countries in the North Eastern Atlantic area.

The EU member states participating in the RCM Baltic, RCM NS&EA and RCM NA uploaded data in the Regional DataBase (RDB) as a response to a data call launched by the RCM chairs in June 2016. The data call covered landing, effort and sampling data for 2015. Upload of previous years' data (2009-

2014) were also requested if these data had changed substantially. The overall response of the data call was satisfactory, even though a few of the MS are still in progress with uploading their complete data sets.

The aim of the annual data calls is to facilitate development of analyses for regional sampling strategies, to solve previous problems related to the upload and also advance in the development of the RDB in order to build a tool for regional coordination where time series of regional 2009-2015 data would form the base for planning of future data collection.

Since 2012 the RDB has been hosted and maintained by ICES under agreement with the European Commission (MoU), in addition since 2014 ICES have provided funds for the further development of the RDB. Unfortunately, no funding for further development have until now been made available through the call for tenders procedures by the EU Commission. As the RDB is an essential tool for the ICES advisory work, ICES has therefore secured 1 Million DKK from ICES Council to run a 2 year development project for improving the RDB to a statistical sampling and raising platform, but also to ensure the different end users/uses are accounted for.

The SCRDB membership setup with RCM representatives, the EU Commission and the ICES secretariat has worked well, however there are now a number of changes that require that the membership is revisited. The funding of the RDB is split between the EU (via an MoU with DGMARE) and ICES own funding. ICES member countries include non EU-DCF countries that are relevant to the regional scientific stock assessments, and therefore to the development and support of the RDB as the main channel for making commercial fisheries data available for not only the RCM end use, but that of ICES in fisheries management advice. Therefore, it is suggested that non-EU countries should be actively involved with full membership of the SCRDB. In addition, the long distance and large pelagic RCM's have been recommended to use the RDB, and therefore should be included in the development process.

It has been agreed that a new RDB will be developed over the next 2 years by the ICES secretariat – this is an ambitious time-scale and is driven by the funding supplied by ICES Council. At the end of the 2 years the new RDB should be capable of both storing data and generating estimates using accepted statistical methods. It is likely that different countries/groups will still need to use InterCatch for a transitional period after the new RDB completion. The long term aim is for the new RDB to completely replace InterCatch. It should be highlighted that the development of the new RDB within such a tight timeframe requires a dedicated support group providing 'instant' support throughout the process. This core RDB development support group is established under the current steering committee and will reflect on suggestions and proposals crucial to the process of developing and building the new RDB.

The RDB Data Policy Document was reviewed at the SCRDB 2016 meeting. The SCRDB does at this point not what to change the present Data Policy. The SCRDB agreed that in the long run the data policy should be more open. The new invited non-EU countries will go through the Data Policy to see if they can support the Data Policy as it is or if additions are needed, in connection with them uploading data to the RDB.

WGRFS

Executive Summary

The ICES Working Group on Recreational Fisheries Surveys (WGRFS) role is to summarise and quality assure recreational fishery data collected in European countries, and provide advice for ICES on recreational fishing issues. In 2017, 31 scientists from 17 countries attended the WGRFS to: share and evaluate current national surveys; assess the validity of new survey designs; provide support on the use of survey data in stock assessment; review national and regional data plans; review novel survey methods; highlight new work on post-release mortality; assess the potential for research on human dimensions; and review the treatment of outliers. The terms of reference and agenda for the working group are provided in Section 1.

WGRFS compiled and assessed the quality of recreational harvest and release data collected within Europe for use in stock assessment (Section 2). These were summarised by country for four major sea areas (Baltic Sea, North Sea and Eastern Arctic, North Atlantic, and Mediterranean and Black Seas) and species (European sea bass, cod, pollack, elasmobranchs, salmon, eels, and tuna).

The design, quality and analysis of marine recreational fisheries surveys was investigated (Section 3). A summary of the experience of marine recreational fisheries surveys in New Zealand and Canada was provided (Section 3.1). The identification and treatment of outliers in the analyses of recreational fishing surveys was investigated, with several methodologies highlighted (e.g. hotdeck imputation, trimmed means) (Section 3.2). However, there was rarely evidence that datapoints are incorrect, so care was needed when deciding treatment of outliers. In general, where outlier or imputation procedures were used, the sensitivity of the results to the approach should be investigated. In addition, a more comprehensive assessment was needed of the methods and proposals for robust approaches, and should be done at a future WGRFS meeting. The quality of national recreational catch sampling schemes in Belgium, Norway, and Sweden were assessed using the WGRFS Quality Assessment Tool (QAT) (Section 3.3). It was only possible to assess the design of these surveys, as the analysis was not complete, with the designs considered appropriate in all cases.

The interactions between marine recreational fisheries surveys and data and the EUMAP and regional coordination were discussed (Section 4). Several WGRFS members were involved in the review of the National Work Plans (NWP), so feedback was provided to the STECF on the process. The main challenges were the mismatch between the evaluation criteria and template, lack of feedback to MSs on the evaluation, identification of experts, timely requests for expert input, and evaluation of national surveys during the WGRFS. The European Parliament study, EURecFish that builds on the WGRFS analysis, and estimated numbers, participation, effort and expenditure by recreational fishers in Europe, was discussed. The storage of recreational fisheries data was assessed and it was agreed that processed recreational fisheries data should be stored in regional databases, and that WGRFS should work with ICES to develop a plan and timescale for delivery of this solution.

The use of recreational fishing catches in stock assessment was reviewed for western Baltic cod, European sea bass, and Baltic salmon and sea trout (Section 5). For sea bass, all recreational data were delivered through a data call and the WGRFS assessed how to provide appropriate data for use in stock assessment. Recreational catches and postrelease mortality should be included in the assessment. The lack of survey data made removals after the introduction of management measures

difficult to estimate, but in the short term should be based on data from the UK and Netherlands alongside extrapolation for France, with new data from France and Belgium included as soon as available. It is very important that time-series are collected for sea bass and that new methods for reconstructing time-series of catches are developed to improve the accuracy of assessments of stocks with significant recreational components. There is an urgent need to include Danish and Swedish recreational catches of western Baltic cod in the assessment. This includes exploratory stock assessment runs to test the effect of including all recreational data on SSB and F, possibly by pooling total recreational catch. Regional cooperation and sharing of data (e.g. biological) across subdivisions should be further explored to fill data gaps. There is also a need to observe recreational fishing effort dynamics in response to the introduced management measures. Recreational catches of salmon and sea trout were included in the assessments, but marine recreational catches were not well defined. In the case of Baltic salmon, expert judgement was used to develop understanding of the trolling fishery that demonstrated the importance of this fishery. Coverage of marine catches of sea trout were poor, so better data were needed to reduce the uncertainty in the assessments. There was an urgent need for the collection of more robust catch, effort, post-release mortality, and socioeconomic data for recreational Baltic Sea trout and salmon fisheries.

To estimate fishery-specific mortality, WGRFS collected information on recreational fishing practices in different European marine recreational fisheries during two workshops conducted in 2015 and 2016. A practical implementation of this was shown and proposals made on how to proceed with post-release mortality (Section 6). It was agreed that recreational fishery characteristics for certain target species should be collected to enable extrapolation between stocks and fisheries, and sublethal impacts of catch and release investigated.

Novel approaches for data collection were reviewed including smartphone apps and webcams (Section 7). WGRFS assessed the information that needs to be collected from apps and the challenges with using app-derived data. The potential of smartphone apps was clear, but so were the challenges in using the data. The extent and direction of biases could be addressed through comparison of app data with onsite data, such as creel or access point surveys. Due to the broad range of apps available, data collection standards should be developed by a collaboration of app companies and end-users. Two examples of the use of webcams in New Zealand and Germany were presented and opportunities discussed.

The application opportunities of human dimension research in recreational fisheries were explored and several methods presented. Understanding anglers' reactions to recreational fisheries regulations help to predict changes in fishing effort dynamics and welfare. Further human dimension research will provide recommendations for allocation decisions between sectors and optimum co-management of commercial and recreational fisheries. To facilitate comparisons between different countries the experimental design (e.g. choice experiments) should be harmonized.

Summary of presentation Recreational Fisheries

Current status

Marine recreational fishing (MRF) in Europe has been shown to be high participation, with significant social and economic benefits, but also has impacts on some fish stocks (Hyder et al. 2017a; 2017b). Recent research has shown that in Europe there are around 8.7 million people engaged in MRF, fishing

for almost 78 million days, and spending about €5.9 billion each year (Hyder et al. 2017b). This creates a total economic impact of €10.5 billion and supports almost 100,000 jobs across Europe (Hyder et al. 2017a). Recreational removals (kept fish plus post release mortality) can be significant for some species representing between 2-72% of the total catch (Hyder et al. 2014, 2017a). As a result, recreational removals should be routinely included in stock assessments, but to date has been limited European sea bass (ICES 2016a), western Baltic cod (ICES 2016b), Baltic sea trout (ICES 2017) and Atlantic salmon in the Baltic (ICES 2017a). This mainly due to limited data available for MRF, specifically in terms of variation catches and releases over time and post-release mortality.

Since 2001, there has been a legal requirement from the European Commission to collect recreational catches and releases for selected species under the Data Collection Framework (EU 2001; 2008; 2010; 2016). Currently under the EU multiannual programme (EU MAP), estimates of catches and releases are required for Atlantic cod, European sea bass, European eel, Atlantic bluefin tuna, Atlantic salmon, pollack, and all elasmobranchs, with variation in species requirements across regions (EU, 2016). Multispecies pilot studies are also required for countries without MRF data within 2 years of the regulation coming into force. A second mechanism for collection of recreational fishery data in Europe is the Control Regulation (EU, 2009) that specifies recreational fisheries are conducted in a manner compatible with the CFP (EU, 2013) and that recreational catches of stocks subject to recovery plans must be monitored, but only for vessels registered in each country. There has been limited data collected on MRF despite these requirements, mainly due to the challenges of delivering robust surveys and the varied and dispersed nature of MRF. This has made inclusion of recreational fisheries in stock assessment challenging (Hyder *et al.* 2014, 2017a), but many new national studies are underway in 2017 that will generate MRF data.

The WGRFS brings together scientists from across the globe working on MRF to share experience and help deliver robust MRF data. The overall aims of the group are: to collate and review quality of national estimates; assess new survey designs; advise on data, assessment, and future data collection; and review and assess regional data collection for RCGs (ICES 2010; 2012; 2013; 2014; 2015; 2017b). The potential for a consistent approach for Europe wide MRF surveys was assessed and considered not to be efficient or effective due to national and cultural differences. Instead, bespoke national multispecies programmes were proposed that should be of adequate quality to allow synthesis of the data at a regional level. To achieve this, the quality of national survey schemes is reviewed regularly by WGRFS to ensure that data can be synthesised at a regional level.

After implementation of the EU MAP (EU 2016), several meetings were held by the Scientific, Technical and Economic Committee for Fisheries (STECF) that included discussions about MRF requirements. STECF (2016b) evaluated that National Work Programmes (NWP) for 2017-2019, that included a description of proposed MRF pilot studies and existing national programmes. It was clear that there were challenges in evaluation of MRF programmes and that the RCGs have a key role in future around definition of end user needs and evaluation of the MRF programmes. A second STECF meeting was held on data quality assurance for DCF that highlighted the importance of provision of national MRFs surveys to assess the impact of on the sustainability of fisheries (STECF 2017). However, to evaluate MRF surveys effectively, comprehensive documentation is needed and should follow WGRFS guidelines (see e.g. ICES 2017b). Again, the role of the RCGs was highlighted with respect to validation of protocols and ensuring that regional end user requirements are met, alongside review by relevant ICES expert groups. In addition, WGRFS provided feedback to the STECF about the evaluation process

that included the issues identified above and suggested that the WGRFS should be integrated into the review of NWP (ICES 2017b).

MRF data issues were also highlighted within a recent study for the European Parliament and recommended the need for regular multispecies surveys that include assessments of economic impact (Hyder et al. 2017b). The importance of MRF both biologically and economically was demonstrated, so should be included in stock assessment to ensure sustainability, and considered a sector for development alongside commercial fisheries and aquaculture under the Common Fisheries Policy (Hyder et al. 2017b).

The lack of a coherent central database for MRF data was identified and the need for a central repository highlighted (ICES 2017b). WGRFS proposed that MRF data should be stored in the regional databases and that WGRFS should work with ICES to develop a plan and timescale for delivery of this solution. However, due to the complexity of the methods, it was felt that raw data and raising procedures being implemented for fisheries survey data was not appropriate for MRF. Instead, population level MRF data should be captured in the RDBs including: stock, year, country, catch and release in numbers and weight, length frequencies, and a survey quality statement (ICES 2017b).

Interactions with the RCG

It is clear that the RCGs have an important role in MRF. From a data collection perspective, regional coordination is important for MRF surveys, but some baseline data is required for many countries before any derogation could be granted. This will be provided through pilot studies that will be done by countries without existing survey data between 2017-2019. This will allow a robust assessment of the potential impact of MRF in countries and regions, but only if multispecies surveys are done. This should be advocated by the RCGs as the cost of a multispecies data collection is not significantly higher than single species approaches (STECF 2016a). At a regional level, the precision required for MRF data needs to be considered, but a single survey instrument is not efficient or effective, with national MRF surveys of adequate quality conducted on regular (annual) basis preferable. However, the assessment of quality of DCF NWP is difficult, so clear scientific evaluation of quality of MRF surveys is needed. In addition, access to all recreational data needs to be seamless and should be provided by the regional databases, as this will ease data compilation, assessments, and management.

A strong link between the RCGs and the WGRFS is needed to generate the technical support. The WGRFS can provide a pool of experts to support RCG MRF needs and work with the RCG to define end-user needs. At the WGRFS, experts from countries working on particular stocks collaborate to ensure that MRF survey estimates can be synthesised across regions. As a result, the WGRF could provide input into RCG requirements for MRF including: additional species to consider based on end user need, quality assurance of programmes, and novel approaches that could be employed to improve MRF surveys. In addition, the proposal project fishPi2 (“Strengthening Regional cooperation in the area of fisheries data collection”) funded by the EC includes a work package on small-scale and recreational fisheries. This will highlight regional data gaps, data quality, and data access issues, and provide support for the RCG in dealing with MRF.

To support the RCG in understanding MRF, there is need to ensure clear communication channels between the RCG and WGRFS, alongside integration of the outcomes from fishPi2. This could easily

be achieved by ensuring that each RCG includes a MRF expert from WGRFS, and provide the means to identify further ad hoc support for the RCG on MRF as required.

Commission and STECF

COM participation: Venetia Kostopoulou, Unit C3, DG MARE

COM made a presentation to inform the RCG NA on (1) the latest state of play of the DCF, as well as on (2) the outcomes of STECF EWGs related to the DCF and to the new role of the RCGs, in particular.

- (1) Regarding the state of play of the DCF, COM presented (i) the role and tasks of the RCGs, as they are prescribed in the new legal framework¹, (ii) different compatibility options on the Rules on Procedures amongst RCGs, and (iii) informed the RCG that the forthcoming STECF EWG 17-14 on the revision of the list of research surveys, will be postponed to the first trimester of 2018.
- (2) Regarding the outcomes of relevant STECF EWGs, three EWGs were presented:
 - a. The STECF **EWG 16-16 on Evaluation of DCF National Work Plans 2017-2019** took place in Ispra, Italy, from 7-11 November 2016. The Work Plans of 27 Member States (23 coastal + 4 land-locked MS), submitted by 31 October 2016, were pre-screened the week before the EWG meeting by ad-hoc experts, using evaluation criteria agreed by STECF in the autumn plenary the week before the pre-screening. As the Commission had to adopt MS's Work Plans (WPs) by the end of 2016, the overall schedule was very tight. Nevertheless, STECF has carefully considered all WPs and provided a summarised evaluation based on the pre-screening and EWG work. The vast majority of WPs were fully or mostly compliant with the EU Multiannual Programme for Data Collection (EU-MAP, COM Impl. Dec. 2016/1251) and the WP template (COM Impl. Dec. 2016/1701), while only few were partly compliant. Moreover, the EWG suggested several improvements of the evaluation procedure and WP template. The EWG report, available on the [STECF website](#), is accompanied by the WP evaluation sheets by MS.
 - b. The STECF **EWG 17-07 on Evaluation of DCF 2016 Annual Reports & Data Transmission & preparation for new assessment of Annual Reports and Data Transmission** was held in Gavirate, Italy, 26-30 June 2017. Apart from evaluating Member States' Annual Reports (ARs) and Data Transmission (DT) issues by end-users, the EWG discussed improvements in the evaluation of ARs and DT failures. Overall, the level of achievement of the ARs 2016 shows an improvement compared with previous years, both in terms of compliance and reporting procedures. The ARs of 16 MS showed 'full' (>90%) overall compliance and 7 MSs' reports were 'mostly' (50-90%) compliant. As in previous years, a pre-screening of ARs and DT issues was conducted, which proved to be very useful for the EWG evaluation. The evaluation of 184 DT issues concluded that 102 issues were justified as satisfactory, 39 unsatisfactory and 43 'unknown' (The EWG was not able to make an assessment). Most DT issues originated from the data calls on Mediterranean & Black Sea assessment, fleet economics and fisheries-dependent information (FDI, formerly effort data call). From ICES, only 8 DT issues were reported for 2016 (while 170 issues were reported for 2015 and 512 issues for 2014!). From RCMs, 12 DT issues were reported. Regarding the DT issues identified by the Tuna RFMOs - IOTC, ICCAT and IATTC - in 2016 and in a total of 8 issues, the RCM Large Pelagics has supported the EWG in its assessment. This happened following a DG MARE request to the chair of the RCM LP and due to the potential lack of

¹ (Reg (EU) 2017/1004), COM Decision (EU) 2016/1251.

expertise at the EWG to correctly assess the data issues raised by these particular RFMOs. With regard to improvements in the AR evaluation, several suggestions have been made by the EWG. Amongst these, the following ones can be of key relevance to the RCGs: 1. an additional step that allows feedback by MS after the pre-screening before the EWG. As this will require more time within the overall process, the STECF proposed to set the legal AR submission deadline (none defined in the DCF Recast Reg. 2017/1004) to mid-May; 2. To organize the results of the evaluation, summarised currently through the 'traffic light table' (compliance level by module) on a MS basis, on a regional basis i.e. by fishing regions. The results shown in this way would allow the EWG and other expert groups such as the RCGs to identify issues in the ARs that are common to several MS in the same region, and in doing so, will promote cooperation and coordination at a regional level to solve common problems; and 3. In the future, to increase/improve the collaboration of the EWG with other expert groups, such as the RCGs, not only to ensure that the results of the assessments are properly conveyed to these groups, but also to receive inputs from RCGs that may inform the assessments. In conjunction with the EWG report, the detailed evaluation sheets for the ARs and DT issues are available on the STECF website.

- c. The STECF **EWG 17-04 on Quality Assurance for DCF data** (Copenhagen, Denmark, 3-7 July 2017) has taken up suggestions from EWG 16-16 regarding improvements in WP evaluation. The EWG discussed principles and criteria for evaluating data quality in WPs and Annual Reports (ARs), quality indicators for end-user needs, minimum requirements for DCF data quality, guidelines for MS to fill in WPs and ARs, and the role of various bodies in this process. The EWG summarised relevant existing work and references, suggested improvements in the WP tables, highlighted the importance of the Regional Database (RDB) for data quality assessment and clarified the roles of RCGs, end-users and STECF in this process. In the STECF view, *"RCGs have a central role to implement the standards to be followed and coordinate the national sampling programs within a region. This is where the deepest knowledge on data collection is found. RCGs are also the ones most legitimate to coordinate and formalise what is needed for common tools such as RDBs, R packages etc., and could be tasked with producing standard and automatized data quality reports at regional level."* The EWG recommended that the forthcoming RCGs consider modifications of Table 1A of the WP template (section 3.2.2.1 in the EWG report). The EWG report is available on the STECF website contains a summary of the most important points discussed and conclusions in its section 6.

COM discussed with the RCG NA a number of tasks, to be completed in the short/ medium-term, and the proposed next steps are listed below: 1) following a request from STECF, the RCG is requested to work on the R-script of Table 1A of the Work Plan, for stocks relevant to the North Atlantic region, 2) following a request from STECF, the RCG NA developed a questionnaire for MS to propose list of research surveys to be included in the EU MAP. COM committed to distribute this questionnaire to all NC, after the Liaison Meeting 2017, to serve as input for STECF EWG 17-14, 3) following STECF EWGs outcomes on the future role of RCGs, a meeting should be set up between STECF and RCGs to discuss ways of cooperation between the two bodies, 4) following STECF EWGs outcomes on the new procedures, a meeting should be set up with MS to agree on new procedures of reporting, particularly related to Annual Reports, 5) COM will inform NC on upcoming submission of Work Plans.

Annex 4 – RCG data call overview

Data upload overviews

Landings data

The overview of the number of species in the commercial landings uploaded to the RDB is shown below.

Vessel flag country (CL species)	2009	2010	2011	2012	2013	2014	2015	2016
Belgium	48	53	48	53	47	56	57	56
Channel Islands							39	39
Denmark	5	6	7	7	10	13	7	14
England		116	116	120	118	115	112	115
Estonia	11	14	11	14	15		12	13
France		122	121	97			228	241
Germany		9	17	17	22	13	16	19
Ireland	119	129	121	126	124	112	109	110
Lithuania	2	6	8	21		4	3	1
Netherlands	44	48	49	48	47	30	46	47
Northern Ireland		59	60	64	54		61	56
Portugal	197	203	196	328	315	335	329	
Scotland		110	102	108	98	93	90	97
Spain						103	102	107
Wales		79	76	69	61	65	64	71

All countries have uploaded landings data for 2016, except Portugal. The numbers of species compared with the previous year indicate that all data have been uploaded for all countries.

The overview of the number of data records in the commercial landings uploaded to the RDB is shown below.

Vessel flag country (CL records)	2009	2010	2011	2012	2013	2014	2015	2016
Belgium	17741	18754	20777	23233	21237	24063	22910	23489
Channel Islands							834	891
Denmark	52	74	67	81	125	179	101	195
England		33292	34668	34633	56945	53320	79248	82820
Estonia	131	158	153	112	236		247	221
France		321167	314575	240682			333865	492106
Germany		234	385	278	508	313	395	415
Ireland	16974	16944	16185	17545	28003	27193	26424	26965
Lithuania	6	12	33	108		71	12	10
Netherlands	709	1141	1242	1145	836	466	1124	902
Northern Ireland		3324	2728	2789	5216		8446	9911
Portugal	16155	18593	18711	120908	120171	138780	134976	
Scotland		9819	9100	9391	15125	14055	25696	27971
Spain						132407	130289	132896
Wales		2987	2950	2575	3455	3736	4593	4501

All countries have uploaded landings data for 2016, except Portugal. France have a large increase in the number of records uploaded for 2016. The numbers of data records compared with the previous year indicate that all data have been uploaded for all other countries.

6.1.1.1 *Effort data*

The overview of the number of metiers in the commercial effort uploaded to the RDB is shown below.

Vessel flag country (CE metiers)	2009	2010	2011	2012	2013	2014	2015	2016
Belgium	4	4	4	4	6	6	6	5
Channel Islands							8	7
Denmark	3	2	2	2	2	2	2	3
England		101	92	102	97	94	80	80
Estonia	2	2	2	2	2		1	1
France		51	52	53			171	134
Germany		6	6	5	5	4	7	6
Ireland	24	25	24	24	23	19	17	16
Lithuania	1	2	3	4		1	1	1
Netherlands	9	12	8	15	8	3	6	6
Northern Ireland		29	26	24	26		26	25
Portugal	19	20	18	18	19	17	17	
Scotland		67	58	63	55	53	46	46
Spain						37	35	35
Wales		32	36	37	31	28	29	29

All countries have uploaded effort data for 2016, except Portugal. The numbers of metiers compared with the previous year indicate that all data have been uploaded for all other countries.

6.1.1.2 *Length samples*

The overview of the number of species in the length samples uploaded to the RDB is shown below.

Sampling country (HL)	2009	2010	2011	2012	2013	2014	2015	2016
Belgium	10	24	10	10	14	14	14	13
Denmark		1	2	1	2	2	1	2
England	111	114	106	136	111	100	117	115
Estonia	1	1	1	7	15			6
France				1				
Germany	4	10	3	4	46	19	10	20
Ireland	113	116	126	125	106	108	124	104
Latvia			4					
Lithuania			10	6				
Netherlands	13	10	19	8	10	11	5	6
Northern Ireland								57
Portugal	213	214	235	224	233	228	140	221
Scotland		22	26	25	126	102	118	111
Spain						220	216	223
United Kingdom	54	65	58	70	60	60	57	
Wales								10

All countries have uploaded length data for 2016, except France. It is assumed that the sampling data from UK is now split in Northern Ireland and Wales. There is an increase in the Portuguese length data. All other countries length data seem to be uploaded compared with the previous year's number of species.

6.1.1.3 Age samples

The overview of the number of species which have been age measured and uploaded to the RDB is shown below.

Sampling country (CA)	2009	2010	2011	2012	2013	2014	2015	2016
Belgium	7	7	7	7	3	4	4	4
Denmark			2	1	1	2	1	1
England	13	14	16	20	17	16	14	16
Estonia								4
France				13				
Germany	2	3	3	2	7	2	4	1
Ireland	12	13	13	13	12	11	10	12
Netherlands	5	5	5	4	5	6	5	5
Northern Ireland								5
Portugal	7	6	7	7	7	5	4	6
Scotland		10	10	11	12	12	11	10
Spain						9	12	17
Wales								4

All countries have uploaded age data for 2016, except France. It is positive that Northern Ireland and Wales now have sample data in the age sampling data. All other countries' age data seem to be uploaded when compared to the previous year's number of species.

6.1.1.4 Conclusion of the data upload

- All countries have uploaded landing and effort data for 2016, except Portugal.
- All countries have uploaded sample data for 2016, except France.
- When compared with data from previous years it is assumed that all data for all other countries have been uploaded.
- A few countries have updated previous years' data.

Annex 5 – Regional Database Development

DataBase and Estimation System development

An update on the RDB development and the Estimation System was given by ICES:

It has been recognised for many years that there is a need to have a new version of the RDB, which is the Regional DataBase and Estimation System development, RDBES, which accommodate upload of statistical sampling information and statistical estimations. There are many benefit of the RDBES:

- Support the Regional Coordination Groups with relevant sampling data for coordination
- Higher data quality by using common quality checks across all countries' data
- Ensure only approved standardised statistical methods are used for estimating data
- Reduces the workload for the countries in estimating data because the RDBES should contain all needed methods
- Document data to detailed data level and a transparent use of estimation methods

- One data call for upload of data to the RDBES for the RCGs and the ICES stock assessment expert groups, because the estimated data will be used for the ICES stock assessment

It is important that the RDBES have only approved estimation methods and it is transparent regarding the processing and estimation of data. This is in the interest of the countries, ICES and the European Commission. The countries benefit from having one system where they can do the estimations. It is known that it is time consuming to do the complex estimations and there is risk of introducing errors, when estimating data for the ICES data call for the ICES stock assessment and advice. By using the RDBES, the RDBES will ensure high data quality and the user make sure the data is ready for estimation and select the right statistical estimation method. This will reduce the work load of the countries. The countries will also benefit from the common repository of all the countries' developed estimation methods, this should also reduce the work load of reinventing estimation methods in the countries in parallel. When the RDBES has been used for estimating data, ICES does not need to issue stock assessment data calls, because the ICES Expert Groups can get the estimated data from the RDBES, which is needed for the stock assessment. This will reduce the numbers of data calls, which will benefit the countries. The countries are also interested ensuring the estimated data for the ICES stock assessment is correct, that is done by the RDBES only are using approved estimation methods which cannot be instantly manipulated. All the processes will be logged and the processes will be transparent.

It is in everybody's interest to have one system with high quality control and common approved statistical estimation methods (and other methods if needed). This is not only in the organisation ICES interest, it is also in the European Commission's interest, also in interest of the countries providing the data, and the expert for the ICES stock assessment expert groups. It is in the countries' interest because, they want the data to be used for the assessment and they want the data to be correctly estimated. It is fundamental to directly use the data in the RDBES and use the RDBES for estimating data for the stock assessment. If that is not happening, then there will not be a transparent and documented path between the data used for the stock assessment and the data collected at detail level. This will mean there is no standardised documentation of the data processing and estimation and an increased risk of errors, and the potential of the RDBES is not utilised. It is one big black hole for the assessment groups what is going on in all the countries from the detailed data in the RDB and until the raised/estimated data is uploaded in InterCatch for the assessment groups. It has been shown that there is a discrepancy between the data uploaded at detail level in the RDB and in InterCatch, which is used for the stock assessment, and there should not be a discrepancy.

Every single year since 2012 the RCM BS, NA and NS & EA have put forward a request to European Commission to fund the development of the RDB, but without luck.

The strategy for the RDBES

WGCATCH, WKRDB and the fishPi project recommend to collect and estimate data using statistical methods. The RDBES will therefore accommodate design based statistical data and statistical estimation methods. The raising/estimation of data should be based on approved statistical methods. Approved statistical methods are available in R, these methods will be encapsulated into the RDBES using version control. The encapsulation of the methods into the RDBES is important, because this will ensure the methods are approved and it is not possible to modify the encapsulated methods written

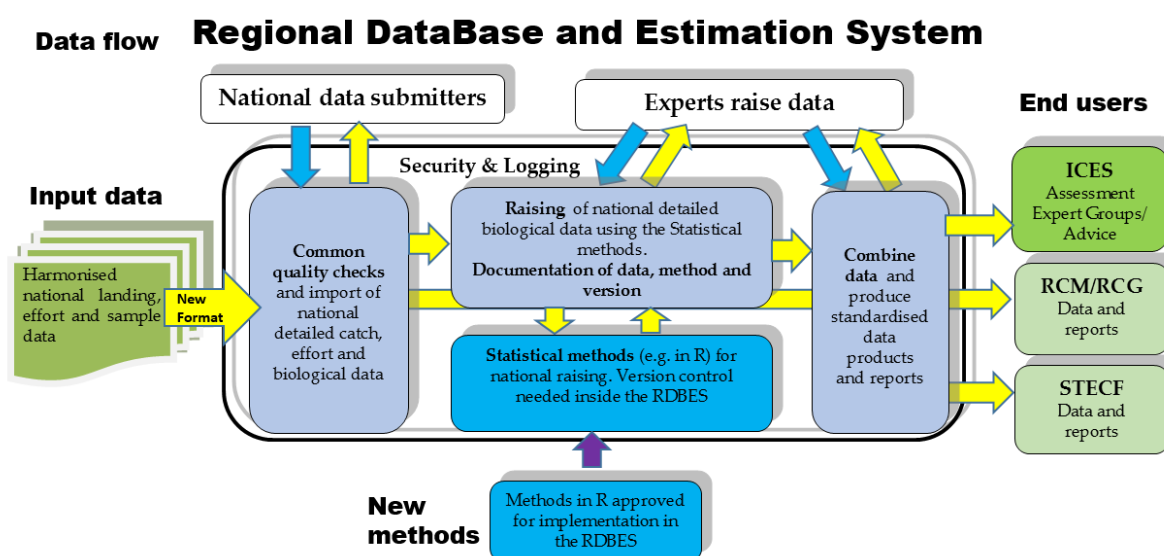
in R inside the RDBES. Having the raising methods defined in R would make the raising more transparent and easier for the experts to update, if needed. It should be possible to download both the data and the methods from the RDB, so the experts easily can reproduce the estimations in the RDBES and further develop the methods.

When a group of experts have developed a new statistical raising method or updated an existing method, the group should approach the WGCATCH or a group of statistical raising experts, which have the task to test and approve raising methods. When the method has been approved, the method will be encapsulated into the RDB, using the RDB's version control of methods. The method can now be used to raise uploaded data, but the method cannot be manipulated/edited, and the raised data will be transparent and fully documented, regarding the data, the method and the version that was used.

It is important that all the persons working towards a statistical raising of sampled data continue the good work and take an active part in the transition process to ensure the RDBES fulfils their needs for uploading their design based sampling data and estimating data using statistical methods.

To be able to document both the uploaded and the estimated data, the RDBES should log all processes regarding the data. According to the Regional DataBase Data Policy the data are restricted, that is taken care of by the security in the RDBES, where all users have to be known and given access to data and processing.

The figure below gives an overview of the flow of data in the RDBES from data uploads and the interaction with the national experts to the two main end users RCGs and ICES, but data could also be downloaded for other relevant end users e.g. STECF.

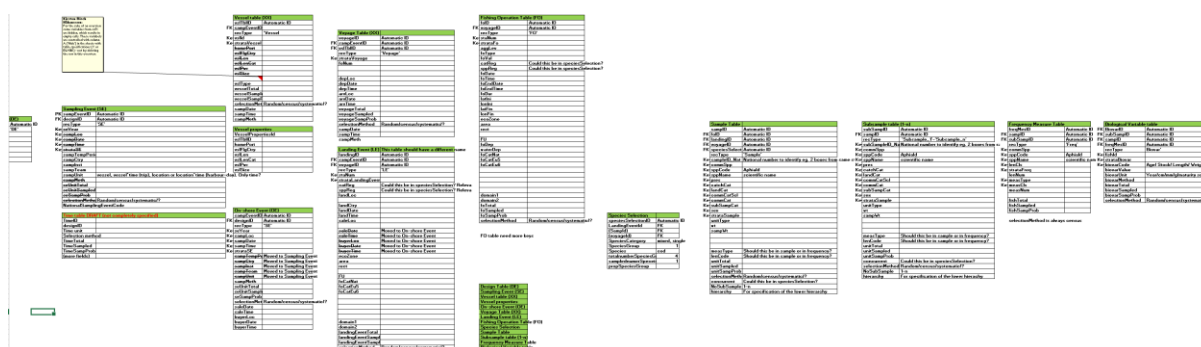


The RDBES system structure

The development of the RDBES

The Steering Committee of the Regional DataBase, SCRDB, established in Dec. 2016 a RDB Project Expert Group, to specify the RDBES. So far it is only the core group of persons that have worked with ICES Secretariat to develop the data model. It was originally the aim to have the specification of the

RDBES ready in mid-March 2017. But because of the complexity of the designed sampling and due to time constraints in the countries it is very difficult to specify the data model for the RDBES. The issue is that the RDBES potentially should be able to handle all the sampling in all countries for all fish species. There have been 7 internet meetings since March and a 2-day workshop in April and another 2-day workshop will be in October, where the data model will be frozen for use for development. Currently the data model is shown below, where the instead of the existing 5 data types in a 2 string hierarchy for the sampling data there so far will be 14 data types with the possibility of a lot more hierarchies.



It is also difficult to specify the data model because the countries are in the process of shifting into a new way of conducting the sampling and collecting the sample information. This is also adding to the difficulties of the specifying the data model. Which again is affecting the development of RDBES, because ICES Secretariat has not been given the specifications for the RDBES including the data model, new checks, new roles etc. When developing the RDBES it would only make sense to develop it using the most up-to-date technology, to make sure the solution is secure and not outdated in the short term. But the development of the RDBES has started and is developed using the latest Microsoft ASP.NET core framework. The RDBES has so far a basic interface to create and maintain users and rights (technically called claims). The roles and rights still have to be specified.

A new generic module for the data upload have been created. As a part of this module the critical and difficult internal conversion of data from the uploaded file to a XML data file has been developed. The new converter should be able to be adapted to the new data model, so work has been done even though the data model have not been specified. To prepare for the new data checks some of the existing checks have been written into LINQ to XML, but the specifications of the new checks for the new data model is needed.

Automated unit testing is used therefore checks are written for the units so the application should have less error especially when code is changed, which the code will be, because of the situation. This will make it possible for the users to specify a dataset and the output, which then will be tested automatically in the system, so the user does not have to perform so many tests. Hereby the system would be less error prone.

Annex 6 – Intersessional sub-group work

Pan regional Rules on Procedures

Article 9 of EU regulation 2017/1004 states the obligation on Regional Coordination Groups to draw up and agree Rules on Procedures. Pre-empting the publication of this regulation and following 2016 RCM recommendations, a pan regional subgroup was set up by the RCMs NA, NS&EA and the Baltic and chaired by Heikki Lehtinen to draft generic Rules on Procedures (RoPs) for the RCGs intersessionally. Several iterations were drafted by correspondence and the version agreed by the subgroup was presented to National correspondents at the *DCF expert group on data collection* ((E02750) in June 2017 with feedback from member states. See:

<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=2750>

for minutes and related documents. Following the incorporation of member states input at the above mentioned meeting a final draft of generic RoPs was produced for presentation at the RCGs 2017.

The generic Rules on Procedures are presented below.

Rules on Procedures for Regional Coordination Groups

1. Scope

1.1. These Rules on Procedure are valid for the Regional Coordination Group (RCG) for the North Atlantic in the framework of the Regulation (EU) 2017/1004 of the European Parliament and of the Council on the establishment of a Union framework for the collection, a management and use of data in fisheries sector and support for scientific advice regarding the Common Fisheries Policy and repealing Council regulation (EC) No 199/2008 (recast).

1.2. These Rules on Procedure are established based on the Article 9(5) of the above mentioned Regulation.

1.3. These Rules on Procedure are established XX by the following EU Member States coordinating their data collection activities in the XX: XX

2. Working language

2.1. The working language of the RCG is English.

3. Meetings of the RCG

3.1. To perform its duties, the RCG shall hold at least once a year an annual meeting unless agreed otherwise by the RCG. An annual meeting shall consist of plenary sessions and may include work in groups.

3.2. The RCG may hold additional meetings to the annual meeting. The duration, form, meeting venue, terms of reference and other relevant elements for such an additional meeting may be agreed at the RCG annual meeting or in a written procedure initiated by the

RCG Chairperson. The venue of the RCG annual meeting rotates between Member States coordinating their data collection activities in the same marine region unless otherwise agreed by the RCG. The order of the rotation is based on the alphabetical order in English language of the Member States.

3.3. Based on a written invitation from a third country, the RCG may agree to hold its annual or additional meeting in a venue provided by the third country.

3.4. No later than one month before the annual or additional meeting, the Member State or a third country organizing the annual or additional meeting shall be responsible for providing details of accommodation, travel and other organizational information relevant for the meeting.

3.5. Each Member State coordinating the data collection activities in the same marine region and the European Commission shall nominate their participants to a RCG meeting and may choose the number of their participants to a RCG meetings with due regard of the items on the agenda at the relevant RCG meeting.

3.6. Member States not listed in point 1.3., may nominate a national correspondent or an expert to participate a RCG meeting.

3.7. Nominated person(s) intending to participate in a RCG meeting shall inform the contact point of the hosting country indicated by that hosting country within the set deadline for that meeting.

3.8. The RCG shall be responsible for providing a necessary platform for documents and other information related to the meeting and to its term of reference. The RCG may be assisted in this task by ICES or an institution or body with e.g. the necessary resources and technical capabilities.

3.9. Only nominated persons may participate to the RCG meetings.

4. RCG groups

4.1. To carry out its duties as set out in the Article 9 of the Regulation 2017/1004, the RCG may agree to establish permanent or temporary bodies, groups, subgroups or other arrangements (hereafter called *groups*). The RCG may provide terms of references for these groups and appoint the chairperson(s), coordinator(s), rapporteur(s), secretary, or any other role(s) or working practices necessary for these groups. The RCG may mandate these group(s) to appoint the chairperson(s), coordinator(s), rapporteur(s), secretary, or any other necessary role(s) and the terms of reference for such group(s).

4.2. These groups may carry out their duties during and between the RCG meetings, as appropriate. The form, duration, participants, participating bodies and other relevant elements of such work may be agreed by the RCG. The chairperson or a person named by the

chairperson of such group shall keep the RCG informed on the progress of such work at appropriate intervals.

4.3. When a group is mandated to prepare a draft regional work plan in the sense of Article 9 of Regulation 2017/1004, relevant Member States shall send expert(s) with the necessary expertise related to that draft regional work plan to participate in the group's work. National correspondents, European Commission and ICES may participate the group's work at all stages.

5. RCG recommendations for further work, work plans and preparation of a draft regional work plan in accordance with the Article 9 of the Regulation 2017/1004

5.1. The RCG may give recommendations for further work to be carried out by the Member States on all issues related to the scope of the Regulation 2017/1004. The recommendations should provide, but are not limited to, clear and understandable stand-alone guidance on the recommended work to be carried out, its justification, a foreseen time frame for fulfillment and to the extent possible, person(s) or institution(s) responsible for the follow up of such recommendation.

5.2. RCG may agree internal work plans or any other type of plans to orientate its internal work.

5.3. When a RCG group has been mandated to prepare a draft regional work plan, the chairperson of that group or a person mandated by that group, shall keep the RCG and may keep scientific institutions referred to Article 26 in Regulation 1380/2013 informed of the progress of such work at intervals agreed by the RCG. Such procedures may include e.g. requests or any other type of action, including timeframes for such action, to the national correspondents and/or scientific institutions referred above, relevant to the drafting of the draft work plan.

5.4. The chairperson of the group may request a draft regional work plan to be put on the agenda of a RCG meeting for a discussion and/or for a decision making.

5.5. If the group mandated to prepare a draft regional work plan has not reached unanimity in preparing the draft regional work plan, Member States' experts or national correspondents participating in the group's work, may indicate their difference of opinions with appropriate justification in the group's report to the RCG meeting where the draft work plan is to be discussed and/or decided upon. European Commission may indicate in the group's report its concerns.

6. Decision making on a draft regional work plan

6.1. Member States referred to in para 1.3. shall make a decision on a draft regional work plan by consensus at the RCG annual meeting. Member States shall take all necessary steps to

ensure that they are represented with a person mandated to take a decision on the draft regional work plan.

6.2. A national correspondent may give a mandate to agree on its own behalf on a draft regional work plan to another national correspondent from a different Member State present at the annual meeting where the decision on the draft regional work plan is to be taken. This shall be done by the national correspondent giving a written confirmation outlining the details of the mandate transferred. The confirmation needs to be done in advance of the RCG annual meeting and it shall be provided to the chairperson of the RCG.

6.3. The chairperson of the RCG may request, if necessary, observers at the annual meeting to be absent during the discussion intimately linked to the decision on a draft regional work plan.

6.4. A decision on a draft regional work plan may be taken at exceptional cases by a written procedure. The chairperson of the RCG may initiate such a written procedure after a mandate with the necessary details to organize and proceed with a written procedure has been given to the chairperson at the RCG annual meeting.

The chairperson of the RCG shall notify the RCG on the results of the written procedure within two weeks after the written procedure has ended.

6.5. The chairperson of the RCG may initiate an additional RCG meeting by using a written procedure.

6.6. The RCG shall make every effort to reach consensus on a draft regional work plan. If after serious and numerous attempts by the RCG, consensus cannot be reached and no decision on a draft regional work plan by the Member States can be taken, Member State(s) not in a position to support the draft regional work plan, shall provide a written justification to the RCG reasoning its divergent view within one month after the end of the RCG annual meeting where the divergent view was expressed. The written justification for a divergent view shall contain a detailed description of an alternative and comparable plan to the draft regional work plan, including science based justification for such an alternative action to be taken by that Member State(s) to achieve the same deliverables and effect as the draft regional work plan in question.

6.7. Member States, who were in a position to support the draft regional work plan, may take into account in their national work plans to content of the draft regional work plan as appropriate.

7. Cooperation between RCGs and the European Commission and other relevant bodies

7.1. The chairperson of the RCG and/or other person(s) mandated by the RCG annual meeting may participate and represent the RCG in coordination referred to in Article 9(6) of Regulation 2017/1004.

7.2. The chairperson of the RCG and/or other person(s) mandated by the RCG annual meeting may participate and represent RCG in other relevant regional bodies, arrangements or meetings.

8. Observer participation to the RCG meetings in accordance with Article 9(7) of Regulation 2017/1004

8.1. In accordance with the Article 9(7) of the Regulation 2017/1004, RCG shall invite as observers relevant end users of scientific data, including appropriate scientific bodies as referred to in Article 26 of Regulation (EU) No 1380/2013, regional fisheries management organizations, Advisory Councils and third countries, when necessary. The RCG shall evaluate the necessity to invite observers based on the justification send by the potential observers and with due regard to the items on the agenda of the RCG meeting.

The justification send by the potential observer shall contain the following information:

- Indicate the relevance of their participation from the Common Fisheries Policy and/or fisheries management point of view and
- Indicate their data interest as accurately as possible relevant to that RCG and
- Indicate the scientific bodies/groups in their relevant institution or country conducting the scientific analyses based on the relevant data and
- Indicate the management body with a legal mandate for fisheries management within the CFP for which the scientific analysis based on the RCG data is conducted for and
- Indicate how, to whom and where the results of the scientific analysis referred above are intended to made available and
- Organizational details and details of the representative to be nominated to participate
- Commitment to comply with the rules and conditions set by the RCG and any other information considered relevant by the potential observer

8.2. The RCG annual meeting shall consider the information provided and may request additional information.

8.3. The RCG shall decide by consensus of the Member States present at the annual meeting which observers shall be invited to the RCG meetings.

8.4 With the exception to what is said above, the International Council for the Exploration of the Sea (*ICES*) has a permanent possibility to participate all RCG meetings.

8.5. After a written confirmation from the RCG chairperson, observers have the possibility to participate to the RCG meetings. The conditions set for the participation may include, but are not limited to, limitations on participation to RCG meetings or group work, limits on access to

data or to be present when data is presented or available, possibility to provide written contributions or to give presentations, name of the person(s) and organizations

8.6. Observers are bound with the conditions referred above. If there are justified reasons to consider , that one or more of the conditions set by the RCG in the written confirmation or otherwise, are violated repeatedly or seriously by the observer, the necessity of the observer to participate or the conditions for the participation may be re-evaluated. The observer shall be informed of this, including the results of the re-evaluation, by a letter from the RCG chairperson after consulting and in consent with the national correspondents of the RCG responding to the chairperson's consultation.

8.7. If considered useful by the RCG, observers may be asked by the RCG chairperson to provide written contributions or presentations directly linked to the agenda points of the specified RCG meeting they are entitled to participate with the view to facilitate the discussions and contribute to the fulfillment of the RCG tasks.

9. Terms of Reference for the RCG

9.1. The RCG may agree the Terms of Reference for the RCG taking into account necessary contributions and information deemed relevant by the RCG. This may include consultation with appropriate bodies or institutions prior or during the decision making to approve the Terms of Reference for the RCG.

10. Agenda and submission of documents

10.1. A draft agenda for the annual RCG meeting shall be made available no later than two months in advance to the meeting. A draft agenda shall be approved at the beginning of the meeting. The approved agenda may be supplemented during the meeting.

10.2. A draft regional work plan, where a decision is expected to be taken in accordance with the draft agenda of the RCG annual meeting, shall be made available to the national correspondents two months in advance to the meeting where the decision is expected to be taken. A draft regional work plan for a decision in the RCG annual meeting made available later than two months before the RCG annual meeting, may be considered and decided upon at that meeting in case of consent of all the national correspondents present at the RCG meeting.

10.3. When it is evident from the draft agenda of the RCG annual meeting that the draft regional work plan is not to be decided upon at that RCG annual meeting, the draft regional work plan can be made available to the national correspondents no later than one month in advance to the RCG annual meeting. Draft regional work plans made available later than one month in advance to the meeting may be decided upon at that meeting in case of consent of all the national correspondents present at the RCG meeting.

10.4. Other documents than the draft regional work plans for the RCG meetings shall be made available no later than 15 days in advance to the RCG meetings. Documents made available later than 15 days in advance to the RCG meetings, may be dealt at the meeting in case of consent of all the national correspondents present at the RCG meeting.

11. Election of the RCG chairperson(s)

11.1. The Chairperson may be elected or agreed upon without a vote by the RCG. A national correspondent, an expert from a Member State or European Commission may act as a chairperson of the RCG. National correspondents or European Commission may suggest nominees for a chairperson. Unless agreed without a vote by the RCG, the election of a nominated chairperson(s) shall take place by voting in a form suggested by the resigning chairperson after consulting the national correspondents and European Commission present at the RCG annual meeting. National correspondents present and European Commission representative present has the right to vote and each has one vote. The vote is decided by a simple majority.

11.2. One term for a chairperson covers the period of two years. A chairperson may serve a two consecutive terms without limiting the total number of terms for the same person to act as a chairperson of the RCG.

11.3. RCG may decide to have co-chairperson(s). The same procedures and conditions as to the chairperson(s) elections apply.

12. The chairperson(s) responsibilities and agenda

12.1. The chairperson(s) of the RCG shall promote effective and productive work and working methods of the RCG. The chairperson(s), an institution or a person indicated by the chairperson shall be responsible for making the documents and information available in time and shall take all necessary action to that effect.

12.2. The chairperson(s) is responsible for preparing agendas for the RCG meetings after consulting the national correspondents of that RCG and other institutions/bodies, as appropriate.

13. Reporting from a RCG meeting

13.1. The chairperson of the RCG or a person appointed by the chairperson shall be responsible for drawing up a report from a RCG annual meeting. The report shall contain, but is not limited to, recommendations of the RCG, the decisions taken by vote and the voting results, a summary of the RCG intersessional progress and of the RCG discussions, future work directions, the intended work to be carried out before the next meeting, the list of foreseeable RCG meetings and list of participants, their contact information, role and institution.

13.2. The report shall be made available to the participants of the meeting and publicly, as appropriate, within two months after the RCG annual meeting has ended. Reports from other RCG meetings shall be distributed within one month after the meeting has ended unless otherwise decided by the RCG.

14. Amending Rules on Procedure

14.1. These Rules on Procedure may be amended at the RCG annual meeting by consensus of the national correspondents present at the annual meeting.

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Cost sharing model workshop Gothenburg

Following RCM recommendations a pan-regional subgroup of representatives from each Northern RCG and additional National Correspondents met in Gothenburg in December 2016 to finalise a draft cost sharing agreement for blue whiting. The minutes of the meeting are available on the JRC website <https://datacollection.jrc.ec.europa.eu/docs/rcm/2017>

Data enduser meeting chairs & ICES

A short meeting was arranged for early March 2017 Copenhagen between the RCG chairs and ICES secretariat to formalise a framework for communications between ICES and RCGs. The minutes were drafted and are available below. Communications about data calls and data exchanges, the RDB and Surveys were discussed and actions agreed.

Report on the meeting between RCGChairs Baltic, North Atlantic and North Sea Arctic and ICES

ICES, Copenhagen
9th of March 2017

1. Introduction

Background to the meeting

In the legal text of DCF recast and EUMAP there are multiple references to “end user needs” on a regional basis. Data collection is required to be coordinated at a regional level

Data collection methods and quality shall be appropriate for the intended purposes defined in Article 25 of Regulation (EU) No 1380/2013 and shall follow the best practices and relevant methodologies advised by the relevant scientific bodies. To this end, the methods and the result of the application of the methods shall be examined at regular intervals by independent scientific bodies in order to verify their appropriateness with respect to the management of the common fisheries policy.

This all implies a process of collaboration with end-users as well as advisory bodies at a regional level. The Chairs of the Northern RCGs (BALTIC, NSEA and NA) are keen to work on devising a framework as soon as possible to ensure any data collection under the regulation meets end-users needs and as ICES is the main end-user in this supra region a meeting was organised with the ICES secretariat in Copenhagen.

Objectives

The objective of the meeting between the RCG chairs and ICES was to:

- start formalising a framework of communication between data providers (RCGs) and data endusers (ICES);
- see how best to improve on current interactions and communications with RCGs and ICES including using established mechanisms;
- use the above to draft ToRs and intersessional work for the RCGs.

RCG chairs met on the 7th March 2017, to finalise the terms of reference and agenda for the meeting with ICES on the 8th and to carry out some preliminary work in preparation for that meeting.

Participants

Name	Email address	Affiliation
Katja Ringdahl (SLU, Sweden)	Katja.Ringdahl@slu.se	RCG North Sea and Eastern Arctic (RCGNSEA) co-chair
Marie Storr-Paulsen (DTAQUA, Denmark)	msp@dtu.aqua.dk	RCG NSEA co-chair
Uwe Krumme (Thünen Institute, Germany),	uwe.krumme@thuenen.de	RCG Baltic chair
Jon Elson (Cefas),	jon.elson@cefas.co.uk	RCG North Atlantic (RCG NA) co-chair
Leonie O’Dowd (Marine Institute, Eire)	leonie.odowd@marine.ie	RCG NA co-chair
Christoph Stransky Thünen Institute, Germany)	christoph.stransky@thuenen.de	STECF rep
Lotte Worsøe Clausen	Lotte.worsoe.clausen@ices.dk	ICES secretariat
Neil Holdsworth, ICES	NeilH@ices.dk	ICES enduser

2. Agenda of the Meeting

1. *Drafting a framework for end-user input and interaction between ICES and the RCGs*

ICES is the main end user of regional data falling within the remit of the Northern RCGs so any framework established could form the model for interactions with other end users.

Under the regulation 2017/1004 and EUMAP 2016/1251, ICES and the RCGs have a responsibility to establish a feedback mechanism or framework to ensure effective data collection that is responsive to enduser needs.

There are limited resources for data collection and RCGs have the responsibility for managing or influencing their allocation.

Discussion points:

How should ICES express and communicate needs?

How should RCGs respond?

On what cycle?

2. *Regional Coordination Meetings, the RDB and the 2017 RCG datacall*

The AGENDA/ToRs were submitted to ICES/Lotte on the morning of the 7th and the RCG chairs met with ICES Lotte and Neil on the morning of the 8th.

3. Meeting outcome, recommendations, action points

Drafting a framework for end-user input and interaction between ICES and the RCGs

The group discussed how the following mechanisms can be used in establishing this framework: ICES Benchmark process; DCF Data calls and ICES expert groups on DCF related issues.

The benchmark processes

RCGs should review the issue list from the EGs relevant to the benchmarked stock.

- Issue list to be compiled, maintained and distributed to the relevant RCGs by ICES.
- RCG to comment and return to ICES
- ICES are reviewing the benchmark cycle with reference to the number of stocks, potential bottle necks. For RCGs it would be useful to have a link to the different RCG region. RCGs to be included after the 'evaluation' cycle.
- RCG to provide an inventory of relevant data collected under DCF to data compilation workshops (DCW). Template to be designed by RCGs (draft at RCGs 2017; collate regional drafts intersessionally Oct/Nov 2017). Need to consider also RF data, DIA, BYC species.
- ICES to provide coding for inventories from DATRAS (and other survey DBs) and RDB with ref to DCF AWP.
- RCGs to compare Annual Work plan survey names with DATRAS names - WGCHAIRS. STECF review group of surveys December 2017 – ToRs still to be finalized but preparation is required. ICES working Document to be reviewed by RCG Surveys subgroup.
- WHEN? Template designed 2017

Data Inventory pre datacall

- Benchmark/Data compilation workshop groups to provide feedback on what is presently sampled and **used**, **collected, needed but not currently used** and **not needed** and **not collected yet (useful in**

the future). RCG to design the template (not forgetting RF data and DIA). Colours only for illustration – codes required for advise.

	... basis of the assessment	definition
1	Used	...
2	collected, needed but not currently used	...
3	not used	...
4	not collected yet	...

Examples **Numbers at age in Age based assessment**
New survey data, data presently not meeting quality threshold
Age data for length based assessed stocks, catch data for survey assessed stocks.
Predation rates, stock identity (genetics), survival rates

Need some input on the quality.

- RCGs to consider balance across all colours and whether there is an opportunity to improve the data for this stock.

Beyond the benchmark:

- ICES to provide advice or feed into guidelines on how to prioritise and what RCGs should consider in any trade offs (WGBIOP, PGDATA, ACCOM).
- ICES to provide advice on what is crucial or recommendation on data priorities and RCGs to take this up.
- RCGs to consider these recommendations.
- Need to consider an evaluation of all stocks at a regional level.
- EELS and SALMON to be included with WGRF in the data call spreadsheets for comparisons.

Data call

- RCG/ICES to compare Fisheries assessment data call (Excel sheet) to ICES stock list database and the NWP's Table 1ABC, DATRAS+, RDB (and National DBs...). Draft template needs to be compiled and circulated.
- These can be flagged as **required and used**, **used but under threshold**, (**available but not used** and **superfluos**).
- ICES requires, under the MOU, to provide advice based on Surveys but commercial catch data might not be available because of thresholds.
- Feedback to ICES for information on potential gaps, help form a process of prioritising data needs and manage expectations. Influence ToRs for EGs below.
- It needs to be considered how EELS and SALMON fit into this process. They are not included in the current ICES assessment data call above but there will be a data call in September. This should and can still be compared with the AWP and need to be considered within this process.
- At the very least, Eels and Salmon expert should present to the RCGs what data they need and require and at what level for their assessments, in reference to the regulation.
- Data Enduser Needs group to have an evaluation meeting with ICES to review these summaries and benchmark feedback – October 2017. If LM continues then perhaps after/ TBD.

WGCATCH, WGBIOP, PGDATA + survey groups WGISDAA, WGRFS

- Influence ToRs for EGs based on the parameters needed and issues apparent from the communications above to develop processes and best practice towards optimisation of data collection regionally and nationally.
- RCGs to discuss role of ISDA and ISUR in reviewing efficiencies of data collection of surveys. RCG to draft ToRs for PGs to review survey design of International Surveys. Cost efficiencies are not currently a consideration but should be – internationally, irrespective of national considerations.
- PGDATA to manage and maintain a repository for collation of best practice and quality assurance processes for data collection.
- ICES SICOM and ACCOM to oversee these EGs? SSGIOM/PGDATA to provide the lead? ISDAA and ISUR as well. Lot of parallel movement of groups rather than collaboration. Data collection quality standards/guidelines require a central repository. Need an umbrella group to act on recommendations from the data collection EGs. ICES to review to provide feedback.
- Survey groups less coordinated at a regional level.

RCG meetings and intersessional work

RCGs need to identify contributors, define clear objectives/ToRs with clear deliverables for the intersessional work:

Data Needs group to cover the evaluation - can provide terms of reference for other sub groups. RCG chairs to start with.

Sub groups need to provide feedback and recommendations to RCGs. Each sub groups should, where possible, also provide a clear reference to End user benefits.

Rules and Procedures - progressing and on the ball

Data group (Forum)

- Data quality
- RDB development
- Regional sampling design
- Upload Logs

Surveys - progressing. Need to consider actions above including drafting ToRs for ISDAA.

Landing obligation - contact NCs to complete questionnaires. Summary issues and resolution. Compliance and science. Last haul project – where is the data? De-minimus and exemptions. Comparisons should be possible this year between Science data and Compliance data.

EGs

- ToRs for EGs need to be drafted in dialogue with the chair and be available ASAP to the Secretariat before November at the latest.
 - Issue list from Assessment WG should be sent to RCGs when finalized.

RCG 2017 data call

- Old format. Any new changes?
 - Upload logs
 - Standard reports?
 - Check with ICES (Kjemms)
 - Deadline – 31st May and any changes since last year.
 - Include Upload Logs
 - All data including otoliths/scales without ages
 - Any absent data MUST be highlighted in the Upload Logs
 - Compiled 2015/2016 Upload logs to be sent to Lotte.
-

RCG Data Group

The RCG data group is a loose grouping of individuals with skills in the statistical computing language R (R Core Team, 2015) which was assembled following initiatives in the RCMs in 2016. The aim of this grouping was to facilitating intersessional and pan regional work with regional data in the data formats used by the RDB (CS CL and CE data formats). Members of the group have been involved in RCM data work, the fishPi project and data uploads to the RDB, but not all are regular attendees of the RCM's. Such a group broadens the pool of skilled people able to develop the RDB and the provision key statistical advice.

The SCRDB at its December 2016 meeting agreed to the establishment of a secure pan-regional section of the RCM share point site for holding RDB data sets as R objects with a user membership limited to those in the data group. Use of the data is in accordance to the data policy document.

In December 2016 the csPi data structure refined during the fishPi project was circulated to data group members with the request that if possible members of the group or relevant individuals in their respective institutions test the format as a possible basis for a revised data model for the RDB. This request was taken up further by PGDATA in February 2017.

As in previous years an extraction of RDB data was made prior to the 2017 RCGs this was read into R, converted into COST objects, and the relevant data subset by area, was uploaded to the RCG share points prior to the NA, NSEA and Baltic RCG meetings.

R Core Team (2015). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <http://www.R-project.org/>.

The composition of the group as of December 2016 is as follows:

Maciej Adamowicz	madamowicz@mir.gdynia.pl	MIR	POL
Mathieu Lundy	mathieu.lundy@afbini.gov.uk ;	AFBINI	NIR
Laurent Dubroca	laurent.dubroca@ifremer.fr	IFREMER	FRA
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Josefine Egekvist	jse@aquas.dtu.dk ;	DT AQUA	DNK
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Alastair Pout	a.pout@marlab.ac.uk	MSS	SCT

Annex 7 – Annual Meeting Sub group Outcome: Rules on procedures

Background to generic RCG Rules on Procedures and the adaptation for the North Atlantic RCG:

A pan regional subgroup was set up by the RCMs NA, NSEA and the Baltic to intersessionally draft Rules on Procedures for the RCGs following 2016 RCM recommendations. Several iterations were carried out by correspondence and a version agreed by the subgroup was presented to the **DCF expert group in data collection** in June 2017 with feedback from member states. A final draft of generic RoP was produced for presentation at the RCG Annual Meetings 2017.

The RCG NA reviewed the generic draft and concluded, that simplification was required. The generic RCG RoP were too complex and attempted to address every likely scenario and outcome. This meant pre-empting a process that is just in its initial stages and it is not possible to foresee every potential issue. The preference of the RCG NA was to first assume a positive and collaborative approach by all member states willing to regionally coordinate their data collection activities and incorporate solutions to any problematic scenarios if they arise. As a result the proposed NA RCG Rules on Procedures were simplified where possible. The RoPs will be reviewed on an annual basis in the first instance. The document below was reviewed in plenary and where consensus was agreed these were flagged green. Some of the sections requiring more consideration were highlighted in yellow. It was not possible before the close of the meeting to get overall consensus on all points.

Comments were gathered and further dialogue exchanges and edits have been made since to a live draft currently in circulation. The chairs will seek full consensus by correspondence after the Liaison Meeting.

Rules on Procedure for the North Atlantic Regional Coordination Group

1. Scope

1.1. These Rules on Procedure are valid for the Regional Coordination Group (RCG) for the North Atlantic in the framework of the Regulation (EU) 2017/1004 of the European Parliament and of the Council on the establishment of a Union framework for the collection, a management and use of data in fisheries sector and support for scientific advice regarding the Common Fisheries Policy and repealing Council regulation (EC) No 199/2008 (recast).

1.2. These Rules on Procedure are established based on the Article 9(5) of the above mentioned Regulation.

1.3. These Rules on Procedure are established XXth September 2017 by the Member States of the Regional Coordination Group coordinating their data collection activities in the North Atlantic for 2017/18: Belgium, France, Germany, Ireland, the Netherlands, Portugal, Spain and the United Kingdom.

2. Working language

2.1. The working language of the RCG is English.

3. Terms of Reference for the RCG

9.1. The RCG may agree the Terms of Reference for the RCG taking into account necessary contributions and information.



4. Meetings of the RCG

3.1. To perform its duties, the RCG shall hold one meeting annually unless agreed otherwise by the RCG. An annual meeting shall consist of plenary sessions and may include work in subgroups.



4.2. The RCG may hold additional meetings to the annual meeting. The duration, form, meeting venue, terms of reference and other relevant elements for such an additional meeting may be agreed at the RCG annual meeting, the Liason meeting or by correspondence initiated by the RCG Chairperson(s). The venue of the RCG annual meeting will rotate between Member States coordinating their data collection activities in the same marine region unless otherwise agreed by the RCG.



3.4. No later than two months before the annual or additional meeting, the Member State organizing the annual or additional meeting shall be responsible for providing details of accommodation, travel and other organizational information relevant for the meeting.



3.5. In accordance with Article 7.2(c) of reg 2017/1004, the National Correspondent for each Member State coordinating the data collection activities in the same marine region and the European Commission shall coordinate the participation in a RCG meeting and shall inform the RCG chairs who will then inform the hosting country within an agreed deadline.



The European Commission shall participate at all Annual Meetings and may attend any other meetings

5. The chairperson(s) responsibilities

12.1. The chairperson(s) of the RCG shall promote effective and productive work and working methods of the RCG. The chairperson(s), an institution or a person indicated by the chairperson shall be responsible for making the documents and information available in time and shall take all necessary action to that effect.



12.2. The **chairperson**(s) is responsible for preparing agendas for the RCG meetings.



3.8. The **RCG chairperson**(s) shall be responsible for uploading to a shared platform and disseminating all documents and other information related to the meeting. The RCG is currently assisted in this task by ICES.



6. Agenda and submission of documents

10.1. A draft agenda for the annual RCG meeting shall be made available no later than one month in advance of the meeting. A draft agenda shall be approved at the beginning of the meeting. The approved agenda may be supplemented during the meeting.



10.2 All related documents to help inform on any extra-ordinary decision making process expected at the annual meeting should be made available no later than **two months** before the meeting.



7. RCG subgroups

4.1. To carry out its duties as set out in the Article 9 of the Regulation 2017/1004, the RCG may agree to establish permanent or temporary bodies, task groups, subgroups or other arrangements (hereafter called *subgroups*). The RCG will appoint the lead(s) and any other role(s) or working practices necessary and provide terms of references. The RCG may give this mandate to the subgroup(s).



4.2. These subgroups will carry out their duties during and between the RCG meetings, as appropriate and as agreed by the RCG. The subgroup lead or a person nominated by the lead shall keep the RCG informed of the progress of such work and any issues arising at intervals agreed at the RCG.



8. Draft regional work plans and RCG endorsement

5.1. Member States coordinating their data collection activities in the region will endeavour to agree on a draft regional work plan **under Article 9 of Regulation 2017/1004**, by consensus at the RCG annual meeting.



5.2. All relevant Member States shall ensure the participation of appropriate expert(s) in preparing draft regional work plans. The European Commission may participate at all stages.



5.3. Member States shall take all necessary steps to ensure that they are represented by a person mandated to take a decision on the draft regional work plan.

When the RCG NA endorses the draft regional plan by consensus, it will be submitted to the Commission for approval.



10.2. A draft regional work plan, where a decision is expected to be made in accordance with the draft agenda of the RCG annual meeting, shall be circulated to the national correspondents two months in advance of the meeting.



6.4. A decision on a draft regional work plan may, if necessary, be made by written procedure. The chairperson of the RCG will coordinate the written procedure through National Correspondents. The procedure should be completed within an agreed timeframe.



6.5 The chairperson of the RCG shall notify the RCG of the decision within two weeks after the written procedure has ended.



9. Procedure for recommendations

5.1. The RCG shall define and document a procedure for making recommendations and agreements to be included in the Rules and Procedure.

The recommendations should provide, but are not limited to, clear and understandable stand-alone guidance on the recommended work to be carried out, its justification, a foreseen time frame for fulfilment and to the extent possible, person(s) or institution(s) responsible for the follow up of such recommendation.



10. Cooperation between RCGs and the European Commission and other relevant bodies

4.X RCGs and subgroup chairs shall endeavour to cross reference the ToRs of other relevant groups and subgroups from other Regions and Expert Groups.



7.1. The chairperson of the RCG and/or other person(s) mandated by the RCG may participate and represent the RCG in any coordination with other RCGs and the commission under Article 9(6) of Regulation 2017/1004 and will keep the RCG informed within an agreed time frame.



7.2. The chairperson of the RCG and/or other person(s) mandated by the RCG annual meeting may participate and represent RCG in other relevant regional bodies, arrangements or meetings and will keep the RCG informed within an agreed time frame.



11. Observers

8.1. In accordance with the Article 9(7) of the Regulation 2017/1004, RCG shall invite as observers relevant end users of scientific data, including appropriate scientific bodies as referred to in Article 26 of Regulation (EU) No 1380/2013, regional fisheries management organizations, Advisory Councils and third countries, when necessary.



If an independent organisation or individual seeks to attend an RCG meeting as an observer they must make a formal request to the RCG Chairperson(s) in sufficient time, with justification. The RCG Chairperson(s) will consult members for a final decision.



8.3. The RCG shall decide by consensus prior to the annual meeting which observers shall be invited to attend RCG and subgroup meetings.



8.4. International Council for the Exploration of the Sea (*ICES*) has a standing invitation to participate in all annual RCG NA meetings and may be invited to participate in RCG subgroup work.



8.5. After a written confirmation from the RCG chairperson(s), observers may attend the meeting. The attendance may be subject to conditions, for example – exclusion from particular discussions and presentations.



8.7. Observers may be invited to provide written contributions or presentations.



12. Election of the RCG chairperson(s)

11.2. One term for a chairperson covers the period of two years. A chairperson may serve no more than two consecutive terms. The role will rotate between Member States coordinating their data collection activities in the same marine region unless otherwise agreed by the RCG



11.1. The Chairperson may be agreed by the MS present at the RCG annual meeting or elected by a simple majority.



11.3. RCG may decide to have co-chairperson(s). The same procedures and conditions as to the chairperson(s) elections apply.



13. Reporting from a RCG meeting

13.1. The chairperson(s) of the RCG or a person appointed by the chairperson(s) shall be responsible for drawing up a report from a RCG meeting. The report shall contain, but is not limited to, recommendations from the RCG, the decisions taken, a summary of the RCG intersessional progress and RCG discussions, future work directions, the intended work to be carried out before the next meeting, the list of foreseeable RCG meetings and list of participants, their contact information, role and institution.



13.2. The draft report shall be uploaded to the shared platform for dissemination to all participants within two months of the RCG annual meeting. The final report will be published on the JRC website as appropriate.



14. Amending Rules on Procedure

14.1. These Rules on Procedure may be reviewed and amended at the RCG annual meeting by consensus of all member states present and endorsed by all National Correspondents of the RCG.



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Annex 8 – Annual Meeting Sub group Outcome: Enduser Needs and Data Quality

For consideration...

Enduser needs:

- Processes for end-user Interactions and identification of end-user needs, Map current end-user needs;
- What is the role of the different bodies and organisations, ICES PGDATA, WGCATCH, WGBIOP, WKBIOP, WKSDECC; STECF? How do we align the work to avoid duplication?
- How can we make use of the RDB to answer data calls, AR, etc – develop output (R scripts).
- See above- template for benchmark process.
- Gaps in the data.
- Review of 2016 data calls and feedback from the RCGs to endusers);

For consideration...

Data quality:

- How do we align the work to avoid duplication? How can we utilize the RDB to improve assessment of quality?
- Design template of data inventory from the RDB for benchmark process together with data quality group.
- Produce an overview from the RDB on; 1) regional fisheries and 2) sampling and quality
- Feedback from RDB-SC on new format,
- Feedback from ICES
- Upload logs.
- Standardisation and reference lists: Prepare table 1A identify gaps and discrepancies (request from STECF EWG 17-04); Collate and review other reference lists (harbours, metiers).
- Standardisation and reference lists: Storage of reference lists in a common place; Standard guidance.

Data end-users (Data Quality)

RCG NA discussed the processes in place for the RCG to facilitate data end users, the use of the data currently retained in the Regional Database and made suggestion to improve the current data flow between the MS and end users, utilising the coordination of the RCG.

The RCG has a remit to coordinate the activity of MS with regard to aspects relating to data collection of commercial catches and fisheries independent surveys. The membership of the RCG includes experts on sampling design/optimization/data quality, biological variables, as well as expertise to address the socio-economic aspects defined in the EUMAP. At present the membership of the RCG is MS, EC and end-users.

The link between end-users and data collected is incorporated in the recast (EC 2017/1004) reflecting the necessity of end-users involvement “... in the design and implementation of the DCF to ensure closer alignment between data needed and data collected.” but also reflecting the role of end-users as members of RCG to make inputs on changes in the current data collection.

Within the NA ICES and STECF are identified as current primary data end users. Within ICES activities are organised and undertaken through a range of expert working groups. These groups are not the 'classic' end-users of the data held in the RDB, however, at times their work could be tested/exemplified using the resource which the RDB is, providing catch data at the lowest possible aggregation level. The groups currently make the underlying scientific work that is necessary to make statistically sound sampling of data from fisheries. The groups feed-back to the RCGs through recommendations on best practices of data quality checks, data collection methods – which then again provide an informed background for the RCGs to evaluate and decide on sampling plans.

End-user involvement in RCG

The current DCF defines end-users as bodies with a research or management interest in the scientific analysis of data in the fisheries sector. At present end-user refers to, but are not restricted to ICES, STECF, OSPAR, NASCO and HELCOM as well as National Administrations. Within the NA ICES and STECF are identified as current primary data end users. The RCG discussed the necessity to recognise that there are data end users at national levels which utilise data collected under the direction of annual work plans to inform management.

End-user feedback

The RCG NA identified the need to encourage constructive feedback and develop effective lines of communication with data endusers. While the most frequent communicated end-user needs are the current needs for provision of advice on fishing opportunities by ICES there may be many other needs, which are not addressed by the current feed-back cycle. The meeting between the RCG chairs and ICES in March 2017 can be viewed as one way of securing a close link between the RCGs and this end-user. During such meetings, initiatives on both sides can be discussed in terms of usefulness for securing an optimal data collection as basis for governance of the natural aquatic resources. On a more operational level, it is suggested that the RCG chairs participate in the annual WGCHAIRS in ICES (usually in January) in order to establish a closer link between the expert group chairs and the RCGs. This would also be an occasion to facilitate the involvement of RCG members with expertise in the RDB and its features in the benchmark process, specifically the data compilation workshops.

Data flow – 'data calls'

Data collected through annual work plans is provided to end-users, by request through routine and ad-hoc data calls. Duplication of effort to meet data calls should be minimised and further refined. At present there is potential duplication within data calls. e.g. landings and effort data in the are held within the RDB, but is requested through datacalls by multiple end-users. The RCG envisages that the RDB could fulfil aspects of these data calls such as routine ICES advice data calls and STEFC Fisheries Dependent Information call. For this to be achieved differences in the levels of aggregation and needs of the RDB vs the needs of individual end-users require review. Additionally there is a mismatch in the MS submitting data to the RDB and whilst end users frequently request data from MS and other nations.

It is intended that common issues relating to current data flow mechanisms frequently reported by MS national labs such as timing issues, in particular short term notice periods and duplication of effort could be alleviated by the use of the RDB to service these data call needs.

Review of data calls 2017

Deadline Dates & Support

There are some deadline issues which occur frequently within data calls.

- Data call submission dates should be checked to avoid falling on weekends, Danish public holidays or Easter. This will ensure technical support is available at a critical time and help member states (MS) avoid penalties for missing the deadline if issues do occur.
If the deadline date cannot be extended, - as is often the case, due to adequate time needed for data analysis prior to working group meetings, - then ICES must ensure adequate technical cover on the days immediately before and particularly on, the day of the deadline.
- ICES were sometimes slow in getting back with user accounts for InterCatch. The onus is on the member state to pre-plan in a timely manner, who will need access details, but sometimes time is critical in getting new analysts set up with accounts. This usually occurs close to a data call deadline date, but sufficient technical support, as already discussed, will resolve this.
- Scientists were unsure if a procedure was in place to give feedback to ICES.

It would be useful if member states could access a schedule of times when technical support is available to analysts.

InterCatch Issues

There are some issues with InterCatch:

- When one MS requires sample information on discards of a stock common to another MS, the scientists must wait until the working group to get this information. This means the data has to be re-run with the new - more relevant - information late in the process, leading to a late upload record (i.e. a transmission failure), even though the original data was uploaded prior to the deadline date.
- *Lack of clarity in the age-disaggregated catch data transmission protocol:* sometimes size-disaggregated data must be transformed at ages using international ALKs to be made available to the stock coordinator or the international data coordinator, which transcends the scope of action of the national database teams. If stock or data coordinators are late in their task (sometimes because of lack of clarity in their working protocols), the national data eventually appear in IC as delivered out of date.
- *Request of historical series by ICES:* some MS have requested the InterCatch version of historical series of data for several years, generally with very little margin time. Even though the estimates do not have to be processed again, the formatting of old historical series is usually time-consuming, since they bring together a large variety of old formats whose transformation to IC format cannot be automated and must be done by hand.
- *Request of historical series by ICES:* the upload of data for series of several years cannot be done with a single file, MS have to upload to CL files containing only data of one year. It would facilitate the work that this could be done in a single upload of a file with all the requested years.

Accession & Stock Coordinators

Submitting to the accessions folder has led to inconsistent habits - due mainly to legacy submission methods, but ultimately leading to confusion for both the national data submitter (NDS) and the stock coordinator (SC)

In general, data calls, request certain information to be uploaded to InterCatch and additional information to be sent to the accessions folder. Sometimes the same data is requested to be sent to both InterCatch and accessions.

However in practice, many analysts also copy the relevant stock coordinator on the accessions email, when it is known who that stock coordinator is.

Stock Coordinators (SC) who receive data directly, agree on the following advantages:

- The SC has the data immediately to hand rather than searching the accessions folder for the data relevant to their stock. This search can be exasperated when member states (MS) do not follow the file-naming convention properly.
- Analysis can begin as soon as data is submitted, as the SC is not relying on the data to appear in the accessions folder. Presumably there is a manual intervention between accessions.dk receiving the data files and the files being added to the relevant working group folder in SharePoint. At times this is known to be a couple of days. This delay impacts on analysis schedules.
- The SC also has access to any relevant notes from the national stock submitter, written in the body of the email.

However, emailing the SC is not a requirement in the data call, and email addresses are therefore not provided. The reality for Stock Coordinators therefore is that they work between data directly received by email, and searches of the accessions folder. These searches are hampered by the fact that the SC receives no automatic alert that new files, relevant to their stock, have been added to the accessions folder.

It should also be noted that inexperienced Stock Coordinators can rely totally on the data emailed directly to them. They may not realise that they should also double check the accessions folder, for files submitted by Member States who correctly follow the data call instructions.

Can stock coordinators be encouraged to meet / update their preferred and approved data submission routes and provide constructive feedback?

DATRAS Issues

Survey data are generally not included in the data call for assessment working groups. The reason for this is that there is an agreed time-line for data submitted into DATRAS.

However:

- As DATRAS is not part of a data call there is no official feedback mechanism regarding issues or delays.
- Not all survey data is required to be submitted to DATRAS
- If there are gaps in the data that should be submitted, there is no requirement to deal with them.
- There isn't a complete set of data products for all surveys in DATRAS

To counteract these issues, it is felt that when a data call requires survey data, then it should be included in the data call:

- if the survey data has not already been uploaded to DATRAS, or

- if the products required from DATRAS are not accessible.

Data Call Design and Content

Data call authors should be very definite as to what data they specifically need, and design the data call around that question, rather than asking for what they think they can get, or request a level of detail that will not be required in the analysis. Member states allocate a lot of resources, in particular scientists' time, in answering data calls, and with the number of data calls increasing, it is imperative that the design of the data call is optimal, with no unused data being asked for.

Timing issues & Deadlines

There are some issues that need to be addressed to reduce scientists' time in dealing with duplication or recurring issues. Also some countries need longer time to collate their data as the data is divided between national bodies.

- In regards to WGEF, the data call deadline cannot be any later than stated, to facilitate the working group, it is suggested that the data call be issued earlier. This should ensure adequate time for collection.
- Some data calls e.g. ask for information which was already in the DATRAS database.
- There is a duplication in some data calls – eg WGMIXFISH vs single stock data calls. In particular there are two different effort requests related to WGMIXFISH.
- A more timely advance notice of all data calls is requested.
- The Stock Information Database should support ongoing data call processes – national labs use the current data calls to build the data calls using annexes as reference tables.
- In relation to the RDB data call, issues in the upload logs need to be prioritised and dealt with.

Editing Issues

In general data calls were clearly written although some had editing issues and others were unclear in some instructions.

- Ambiguous statements assumed a familiarity with data call submissions over previous years. Account was not taken of scientists new to the analysis or unavailable data. A summary table of what annual data is required from each member state may be helpful.
- Some instructions had no explanatory notes attached at all. This leads to each Member States individual interpretation, which can ultimately lead to inconsistent data which cannot be collated.
- Data Limited Stocks were introduced in data calls during 2017. However there were issues with lack of detail and no contact person in ICES to get clarification. Also it was felt the tables that had to be populated for the DLS stocks, made little sense.
- Other editing issues included native language instructions rather than English, photocopied tables, repeat paragraphs, inconsistent formats, and categories which were not very well described.

In previous years, draft copies of data calls were sent to the national coordinators (NC's) of each member state. This gave the NC's a chance to make sure the data being requested was relevant, and edits could be implemented before the official data call was issued. Perhaps this step can be re-introduced.

RDB datacalls

Issues that have been noted relate to limited upload checks (catch category; fraction of trips assigned to rectangles; catch slipping) and missing sample data from a member state. These should all be documented in the Upload logs but are issues in the upload logs being taken forward and how are these being prioritised? The exchange format document needs to be updated to capture the more recent fixes.

Non standard data calls from other end users

MS do suffer from not standard and adhoc data requests. ICCAT have a standing request with a lot of institutes and which are not managed by NC via control agency. All data requests straight to the institute from any RFMO or external body should be copied to the NC.

Data quality – the RDB as a tool to facilitate current end users

RDB data on Lophius

The idea here is to demonstrate what might be available in the RDB for a particular species, or group of species. This can facilitate the evaluation of data at fora like data compilation workshops and/or benchmarks. The steps followed here help to ascertaining the extent of this data available, an indication of the circumstances of its collection, and look at some of the characteristics to perhaps highlighting some of the issues with its use. This process would facilitate the communication between those assessing the species, and those with knowledge of the collection of the data. An important caveat is that interpretation of the data is dependent on a working knowledge of the formats in the RDB, and an understanding that the data are sample data. The data we consider here is raw sampling data held in the table of the CS; these are not population estimates, but the basis on which those population estimates would be derived. Landings and effort data is also available but is not considered in this exercise. As an example here we look at the data for a group of species, the monkfish, which are due to be bench-marked in 2018.

Inventory of sampling data for monkfish species 2016. Table 1 provides a summary of all the monkfish data present in the RDB in the 2016 upload; note that no French sampling data was uploaded for 2016. Data on monkfish samples exist in the sampling data from 12 countries. Sample type is either market M, on-shore from unknown trips D, at-sea S or V for samples purchased from a vendor. The table records the number of dates, sites, unique vessels and trips, from which those samples were obtained. The number of species is recorded (in this instance always one), and the number of length frequency measures taken from the HL table of the CS data. The BioSites and BioTrips are the number of sites and trips from which individual fish have been obtained for biological sampling, from which the age, length, sex, weight measures are recorded. The biological data is recorded in the CA table, and depending on the practices of the individual sampling institutions can be linked to length frequencies through the HH table or can be entered linked only to the TR table.

Table 1 Summary table of the monkfish data present in the RDB for the 2016 data upload. The table records, sampling country and species, with sampling totals derived from the TR HH SL HL and CA displayed in the proceeding columns.

```
> monkTab[order(monkTab$sampCtry),]
```

	sampCtry	spp	sampType	days	sites	vessels	trips	nspp	lengthFreq	bioSites	bioTrips	bioSpp	wght	ages	lengths	sex	maturity
1	BEL	Lophius piscatorius	S	144	9	14	31	1	15840	NA	NA	NA	NA	NA	NA	NA	NA
3	BEL	Lophius budegassa	S	24	2	2	4	1	8183	NA	NA	NA	NA	NA	NA	NA	NA
2	DEU	Lophius piscatorius	S	38	5	4	11	1	106	NA	NA	NA	NA	NA	NA	NA	NA
4	DNK	Lophius piscatorius	M	18	6	20	23	1	946	6	23	1	946	0	946	0	0
5	DNK	Lophius piscatorius	S	73	8	30	39	1	807	7	16	1	110	109	110	0	0
11	ENG	Lophius piscatorius	S	190	25	83	135	1	12011	8	31	1	0	170	172	150	0
12	ENG	Lophius budegassa	S	114	7	27	35	1	4522	3	14	1	0	102	103	92	0
13	ENG	Lophius piscatorius	M	93	13	73	120	1	12174	3	9	1	0	124	124	85	0
14	ENG	Lophius budegassa	M	57	8	37	66	1	3412	2	4	1	0	66	66	37	0
15	ESP	Lophius budegassa	S	127	9	16	36	1	1348	NA	NA	NA	NA	NA	NA	NA	NA
16	ESP	Lophius piscatorius	S	79	9	15	32	1	318	NA	NA	NA	NA	NA	NA	NA	NA
17	ESP	Lophius piscatorius	M	167	15	76	273	1	12211	5	54	1	114	0	763	114	114
18	ESP	Lophius budegassa	M	162	17	77	249	1	13708	5	51	1	129	0	481	129	129
19	ESP	Lophius americanus	S	4	1	1	1	1	90	1	1	1	64	0	64	58	1
32	ESP	Lophius piscatorius	V	NA	NA	NA	NA	NA	NA	5	49	1	77	0	647	77	77
33	ESP	Lophius budegassa	V	NA	NA	NA	NA	NA	NA	4	45	1	30	0	487	30	30
20	IRL	Lophius budegassa	D	93	1	49	117	1	3851	1	51	1	526	0	534	0	0
21	IRL	Lophius piscatorius	D	113	1	64	150	1	9615	1	91	1	1599	0	1599	0	0
22	IRL	Lophius piscatorius	S	119	12	20	40	1	1834	NA	NA	NA	NA	NA	NA	NA	NA
23	IRL	Lophius budegassa	S	80	9	15	24	1	2887	NA	NA	NA	NA	NA	NA	NA	NA
24	NIR	Lophius piscatorius	S	122	6	1	108	1	3502	NA	NA	NA	NA	NA	NA	NA	NA
25	NIR	Lophius piscatorius	D	6	2	1	11	1	313	NA	NA	NA	NA	NA	NA	NA	NA
6	NLD	Lophius piscatorius	M	15	6	14	18	1	375	NA	NA	NA	NA	NA	NA	NA	NA
26	POL	Lophius piscatorius	S	5	1	1	1	1	6	NA	NA	NA	NA	NA	NA	NA	NA
27	PRT	Lophius budegassa	M	49	7	1	58	1	16179	NA	NA	NA	NA	NA	NA	NA	NA
28	PRT	Lophius piscatorius	M	37	11	1	42	1	2607	NA	NA	NA	NA	NA	NA	NA	NA
29	PRT	Lophius budegassa	S	9	3	1	6	1	39	NA	NA	NA	NA	NA	NA	NA	NA
30	PRT	Lophius piscatorius	S	6	3	1	3	1	12	NA	NA	NA	NA	NA	NA	NA	NA
34	PRT	Lophius budegassa	V	NA	NA	NA	NA	NA	NA	1	8	1	0	0	90	0	0
35	PRT	Lophius piscatorius	V	NA	NA	NA	NA	NA	NA	1	9	1	0	0	77	0	0
7	SCT	Lophius piscatorius	S	231	17	92	138	1	2593	NA	NA	NA	NA	NA	NA	NA	NA
8	SCT	Lophius budegassa	M	57	5	53	65	1	440	5	57	1	0	271	271	0	0
9	SCT	Lophius piscatorius	M	78	5	71	95	1	5730	5	86	1	0	2178	2178	0	0
10	SCT	Lophius budegassa	S	15	3	9	11	1	82	NA	NA	NA	NA	NA	NA	NA	NA
31	SWE	Lophius piscatorius	S	20	9	13	17	1	41	NA	NA	NA	NA	NA	NA	NA	NA

Error! Reference source not found. shows the numbers of measured fish by length class for species and sampling country. These data are from the length frequencies recorded in the HL table. Note that these histograms are from data of many different samples and take no account of the different sampling probabilities under which the samples are collected. Therefore the shape of the histogram need have little, if any, relationship to the length distribution of population of caught fish.

Figure 3 demonstrates the process of plotting from the data in the CA table age against length. One of the considerations with monkfish is the difference in the ageing derived from otoliths, and that derived from illicia. Portugal and Spain collect illicia, Denmark, England and Scotland collect otoliths, Ireland collects both illicia and otoliths. Only for the otoliths has the age been determined and entered into the RDB. The age length scatter plots are presented by sampling country overlaying on another in

Age given Length for multiple species by sampCtry

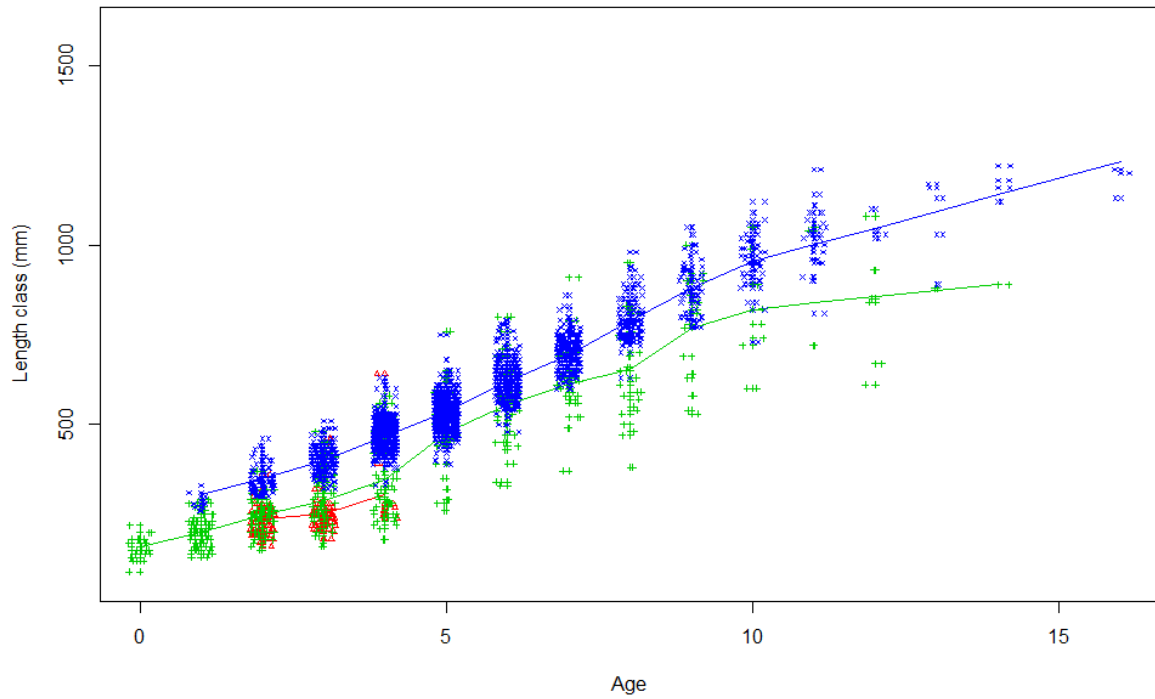
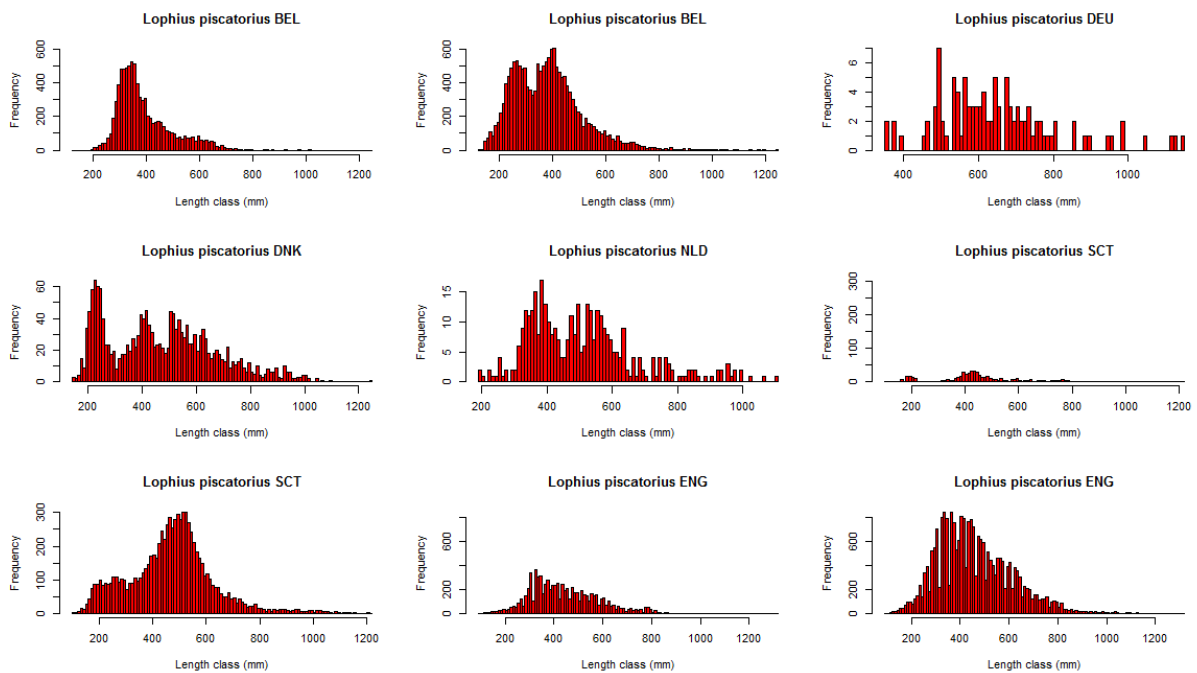


Figure 4, and by species in **Error! Reference source not found..**

Figure 6 and Figure 7 are scatter plots of the weight length relationships, by sampling country, and by species

Figure 8 is a map of the recorded longitude and latitude positions for at sea samples, where *Lophius* was recorded.



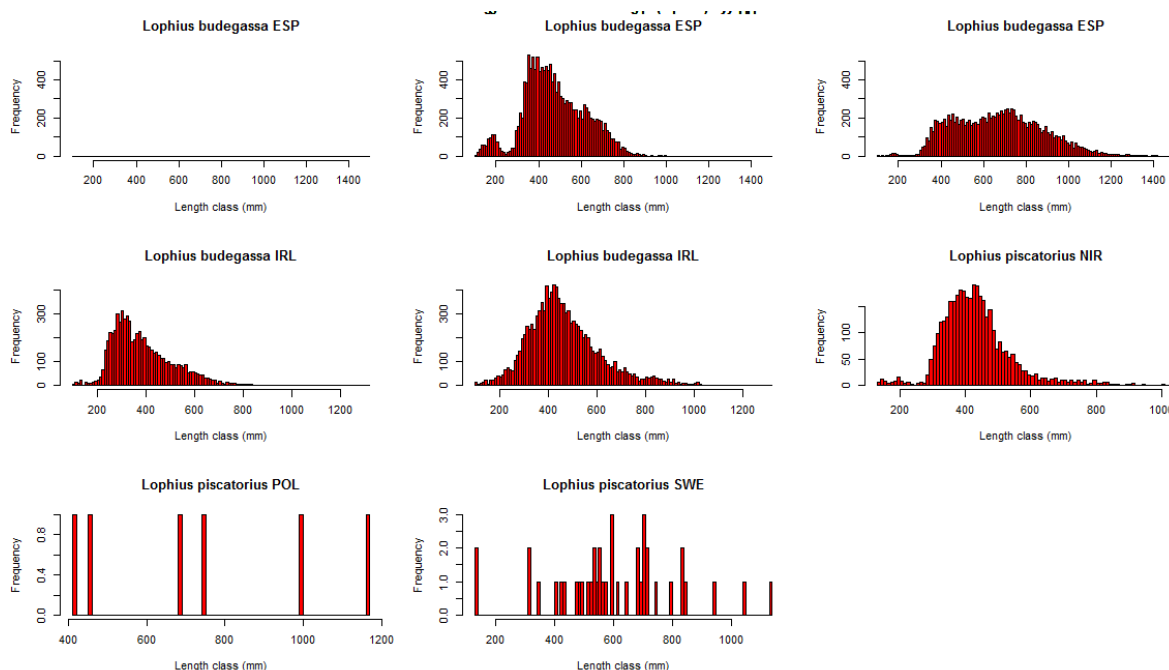


Figure 2 Numbers of measured fish by length class for species and sampling country. Note that these histograms are from data of many different samples take no account of the different sampling probabilities under which the samples are collected, and therefore the shape of the histogram has little if any relationship to the length distribution of population of caught fish.

In terms of the practicalities of generating these plots and figures, the data set was determined by searching the species name (sl@spp) field for “*Lophius*” which returned data on *Lophius americanus*, *Lophius budegassa*, *Lophius piscatorius*. Subsetting the regional data by these species, and using the `sampleInv` function by sampling country, species and sampling type generates the summary table. The numbers of measured fish by length class were generated with `lengthHist` function, the age length plots with `agelenPlot` function, the weight plots with `wgtlenPlot` function, the map with `sea.plot` with the addition of a world coastline and ICES area data. All these functions are available in the R package `RCMfunctions` which is available on the RCM/RCG share sites, and the data group share point.

Data quality issues highlighted during this exercise include age data where 99 was used for missing data rather than NA or NULL, longitude corrections to negative values for positions east of 0 degrees, values where the length code for the measuring increment in the sl table was omitted. The PRT sample lengths cannot be plotted due to inconsistencies in the length increment recorded in the SL table, and the actual length class intervals recorded in the HL table. The *L. americanus* come from the trip in FAO area 21, at ~ -44 degrees longitude.

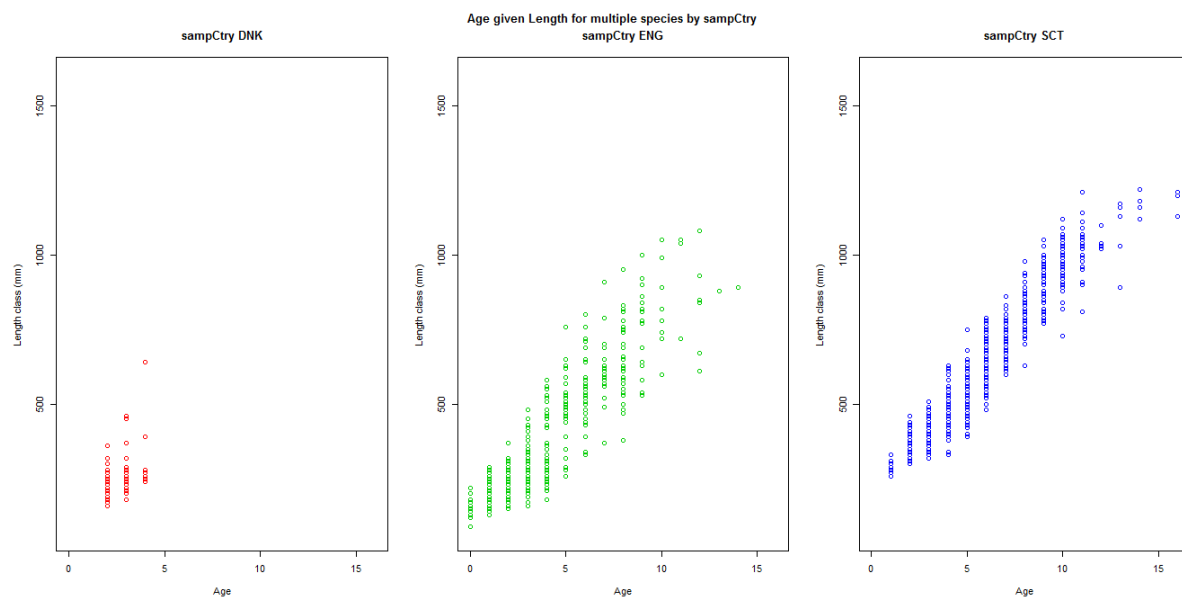


Figure 3 Scatter plots of length against age by sampling country, Denmark, England and Scotland.

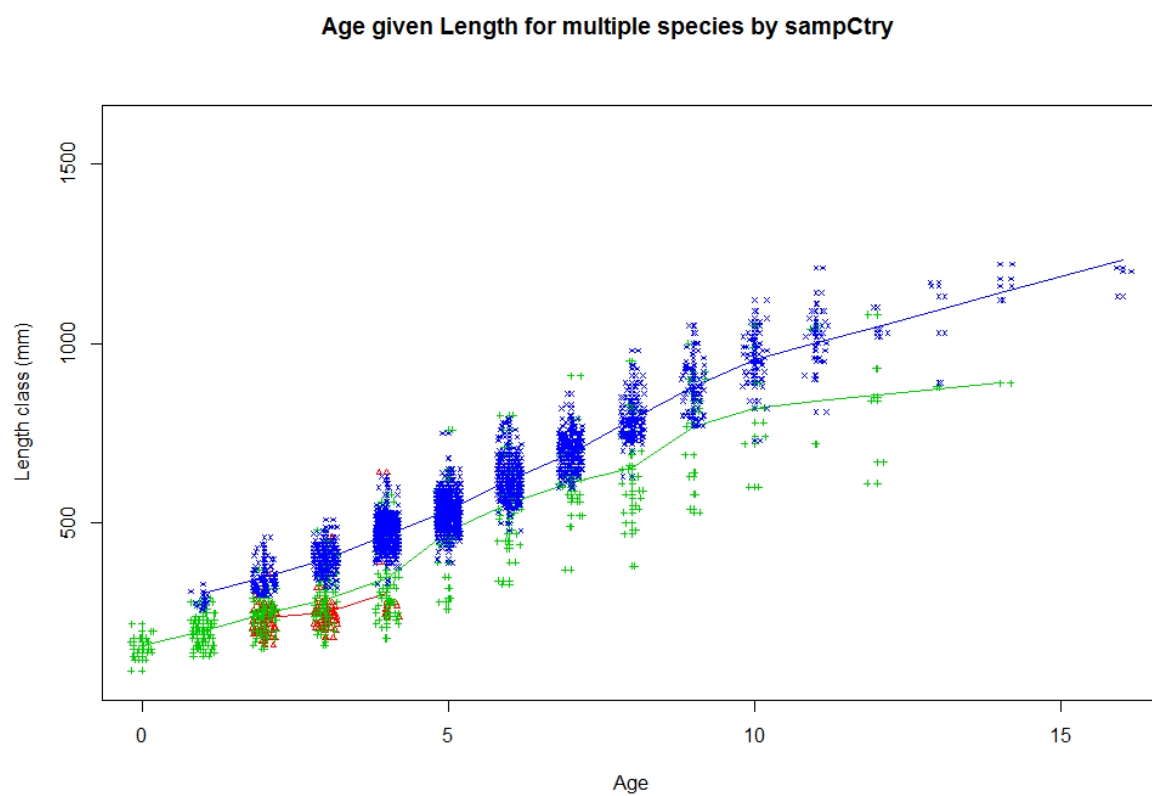


Figure 4 Overlain scatter plots of length against age by sampling country, Denmark, England and Scotland.

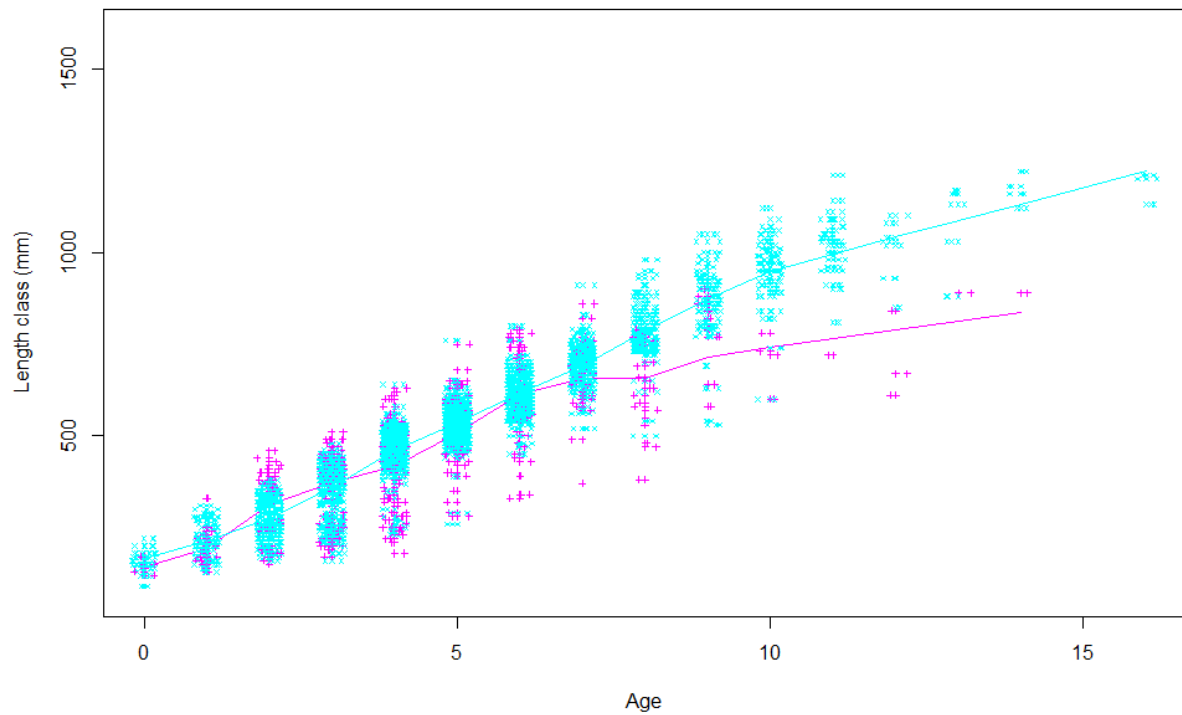


Figure 5 Overlain scatter plots for the two species, *L. piscatorius* and *L. budegassa*

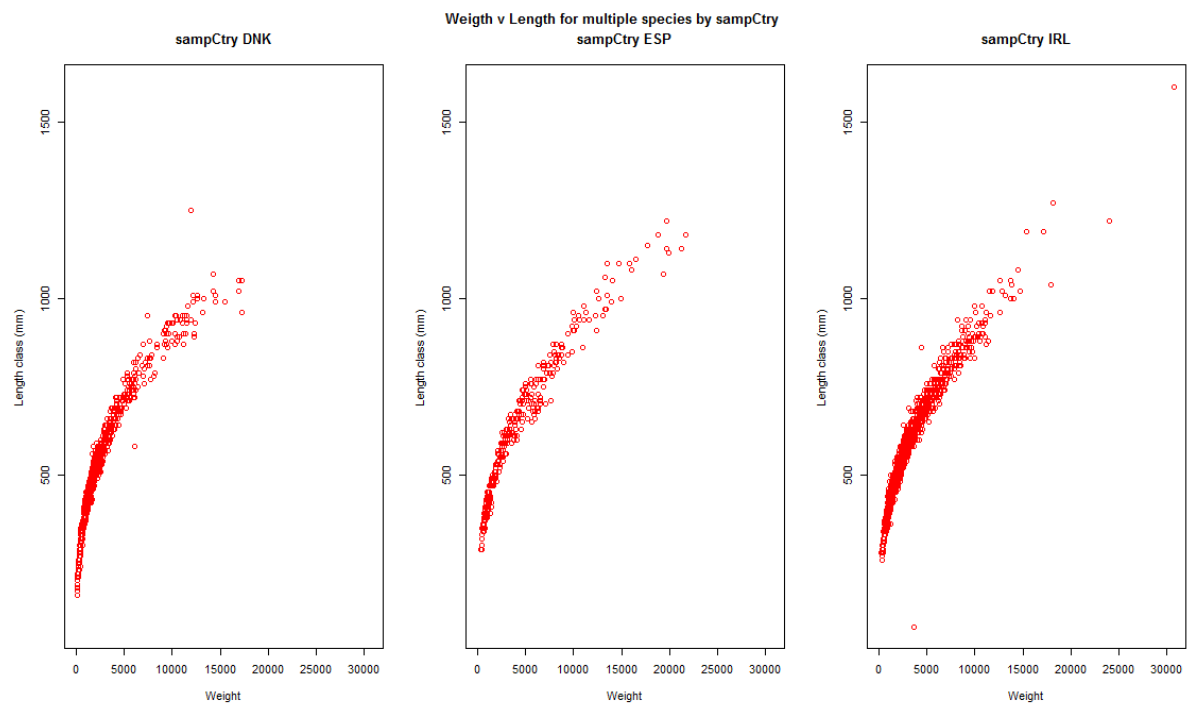


Figure 6 Weight length relationships by sampling country.

- The host of the RDB (ICES)
- The EU Commission

This has worked well, however there are now a number of changes that require that the membership is reconsidered. Firstly, the funding of the RDB is split between the EU (via an MoU with DGMARE) and ICES own funding (3 development grants in 2014, 2015, 2016). ICES member countries include non EU-DCF countries that are relevant to the regional scientific stock assessments, and therefore to the development and support of the RDB as the main channel for making commercial fisheries data available for not only the RCG end use, but that of ICES in fisheries management advice. Secondly, to avoid parallel systems for the provision of data and estimation procedures for countries within and outside the EU but sharing stocks/stock assessment advice. In both cases, non-EU countries should be actively involved with full membership. Thirdly, the long distance and large pelagic RCG's have been recommended to use the RDB, and therefore should be included in the development process.

New configuration

From 2017, to ensure a broader participation and applicability of the RDB, but also recognizing the obligation EU countries have under the DCF, the current SCRDB recommends the following setup for approval by the RCG's.

- The RCG-RDB-Steering Committee will also include RCG's that are not actively submitting data, but interested to follow the development.

RCG NA 2017 response:	Happy with the inclusion of other RCGs but we need clarity on their level of participation...
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- The RCG-RDB-Steering Committee will invite non-EU countries as observers (primarily Norway, Iceland, Faroe islands, Greenland and Russia).

RCG NA 2017 response:	Happy with their participation as observers ...
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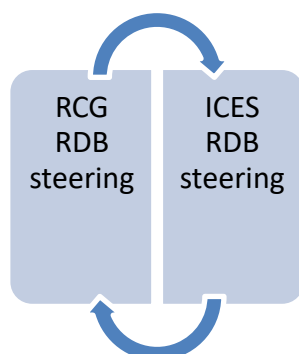
- A new group under the ICES system, the ICES RDB Steering Group, will be created with similar ToR's and the same chair as the RCG-RDB-Steering Committee. Non-EU countries that are part of ICES will have full membership of this group.

RCG NA 2017 response:	The RES is an ICES system and it is essential that the RCGs are kept informed of the progress in their development. Any potential impact on the functionality of the RDB and the requirements of the RCGs needs approval from the RCG-RDB SC and RCG members.
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- The two groups will meet sequentially (2 days for RCG-RDB-Steering Committee and 0.5 days for ICES RDB Steering Group) in order that all can follow the discussion and proposed decisions, but allow the EU and non-EU countries to have a separate reporting line for the outcomes.

RCG NA 2017 response:	If the ICES group is dependent on direction from the RCG-RDBSC then this should not be an issue.
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- This will allow some flexibility in addressing the needs of the RCG's as end users, and ICES as an end user.



Future outlook

The structure will be reviewed and the possibility to merge these 2 groups under one ICES group would be considered.

RCG NA 2017 response:	The RDB was developed to support RCM and now RCG functions. The SC was setup to ensure the continued maintenance and development of the RDB to meet the needs of the Regional Coordination Groups and its difficult to see how an External Body would be able to provide the same assurance.
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Response to WGCatch data call

WGCatch foreign landings template feedback

At the RCM NA 2016, it was identified through analysis of the RDB that landings abroad can constitute a substantial fraction of the landed catch, a fraction which needs to be sampled adequately and for which estimates are required. The RDB can accept sampled landings by other nations. However, the number of records within the RDB would suggest that there is very little sampling of foreign vessels occurring.

Via the liaison meeting, WGCATCH 2016 received the following recommendation:

- WGCATCH investigate suitable methods for estimating non-flag landing fractions.

WGCATCH responded:

- WGCATCH was not in a position to address this issue at the current meeting due to the short time period that spanned between the Liaison Meeting and its own meeting. WGCATCH recognizes the importance of the topic and will include it as ToR for 2017.

To this purpose, WGCATCH plans to compile information on the importance of foreign landings in national ports and discuss and draft best practice guidelines for their sampling and estimation at the 2017 meeting. The group intersessionally developed a template for a data request to allow it to compile the relevant information. The RCG NA 2017 was asked to review this template before it is sent out. This task was done by the data end-user subgroup.

It should be clarified that the focus of the review are vessels routinely departing and landing into non-national ports as these are more likely to not be covered by national sampling schemes and only provide information for landings into their own country.

The proposed data template was considered to be comprehensive but in the current format requesting completion of the template may be met with resistance from member states, as there is potential for duplication (both MS landings abroad and foreign landings to MS are requested) and data is requested at a finer level of aggregation. The RCG NA concluded that it would be more beneficial to use the data stored in the RDB to obtain much of the information requested in the template. There are a number of WGCATCH members that have access to the RDB and who should be able to undertake this analysis.

The RCG NA also noted that the original request regarded the methods for estimating foreign landings, quantifying these landings is a logical step but this should not be the main focus for WGCATCH.

Nevertheless, the RCG NA feels that a review of the national sampling and data use processes would be beneficial. In this respect the RCG NA is interested in the following:

- Does the MS have access to the logbook data for foreign vessels landing into the MS?
- Are foreign vessels that land in the MS sampled?
 - Are these vessels less likely to be sampled than national vessels?
 - Where are these vessels sampled – at ports or at sea?
 - Are the estimates likely to be biased due to lack of sampling of foreign vessels?
- How are foreign samples dealt with by member states?
 - Informal sharing
 - Formal sharing agreements (in data calls)
 - Are the samples supplied by foreign MS included in the national estimation
 - Uploaded / used as 'national samples' to databases, such as InterCatch or RDB

Within this, it would be beneficial to identify stocks or regions which were likely to be more greatly impacted by missing sampling opportunities. This would allow the RCG to better plan regional coordination of sample collection, to benefit the accuracy of catch characterisation for management and assessment of stock status. The RCG NA would propose that in the first instance, the data requested under the tab 'Landings Abroad' are obtained from the RDB. If this proves impossible, the RCG NA proposes a simplification of the data template to focus on tab 'Landings Abroad'. A list of potential fields is identified below. The RCG NA recognised that the WGCATCH experts may identify that insufficient detail is covered by these fields to allow the WG to fully explore potential for estimation bias or impacts of missing samples and that WGCATCH should review this to ensure suitability.

Potential data template (based on 'Landings Abroad' tab):

Fields:

Year 2014 - 2016
Foreign Vessel Flag
Landing Country = own
Species
Area
Metier level 4
Average Landings (kg)
Average National Landings (kg)
Number of Vessels
Access to logbooks for these vessels?
Sampling programmes (at-sea, markets, processors, other..)
Sampled components
Do you upload landings data from these vessels to RDB?
Are samples used in stock assessments?
Are estimates for this component derived separately from those of the fleet that lands in national ports?

Response to Completion and evaluation of Annual work plans.

Table 1A Audit

The RCG NA subgroup on Enduser Needs and Data Quality reviewed the results of the R script offered for the completion of Table 1A of the Annual Work plans by comparing the results with the final submissions October 2016. Examples of differences are given in Table 2 and 3.

Table 2 Species nomenclature

Scripted	MS prepared tables
<i>Trachurus</i> spp.	<i>Trachurus trachurus</i>
<i>Lophius piscatorius</i>	<i>Lophius piscatorius</i> and <i>budegassa</i>
<i>Lophius budegassa</i>	<i>Lophius piscatorius</i> and <i>budegassa</i>
	<i>Selachii</i> , <i>Rajidae</i>

Table 3 Species TAC reporting areas / aggregation or divided

<i>Micromesistius poutassou</i>	IIIa	I, II, III, IV, V, VII, VIIIabde, XII and XIV
<i>Clupea harengus</i>	VIa S, VIIbc	VIa
<i>Nephrops norvegicus</i>	VI Functional unit 11, 12, 13	VI Functional unit 11
		VI Functional unit 12
		VI Functional unit 13
<i>Nephrops norvegicus</i>	VII Functional unit 14, 15	VII Functional unit 14
		VII Functional unit 15
<i>Nephrops norvegicus</i>	VII Functional unit 17, 18	VII Functional unit 17
		VII Functional unit 18

Broad selection criteria: 200T landings or 3% TAC.

Simple check between those species selected for sampling vs national submissions. Joining national tables to the scripted table. The predominate differences are related to the species and area nomenclature above. In other cases it is TAC source between national and scripted tables that result in differences. Selection – up to individual MS. Simple to evaluate once the correct data is in place. An agreed reference of stocks and areas should be supplied. The source to TACs and landings also needs to be maintained and agreed.

Table 4 Differences between Scripted and Submitted Landings and TAC share.

Spp	Area	Scripted						Submitted					
		Landings			TAC			Landings			TAC		
		ES	IE	UK	ES	IE	UK	ES	IE	UK	ES	IE	UK
<i>Anguilla Anguilla</i>	all areas									364			
<i>Gadus morhua</i>	Vla											22%	
<i>Pollachius virens</i>	IV, IIIa, VI			3419						3419		6%	
<i>Reinhardtius hippoglossoides</i>	VI										1%	1%	73%
<i>Reinhardtius hippoglossoides</i>	V, XIV						0%						5%
<i>Trachurus trachurus</i>	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde	1817	18330					1817	30080	6350	11%	26%	9%
<i>Coryphaenoides rupestris</i>	all areas	2213			44%	3%	0%	2213			32%	6%	3%
<i>Merlangius merlangus</i>	Vb				0%	35%	57%				0%	0%	57%
<i>Nephrops norvegicus</i>	VI Fuctiol unit 11, 12, 13			12470	0%	0%	98%						
<i>Nephrops norvegicus</i>	VII Functiol unit 14, 15		2628	6564	6%	39%	32%						
<i>Nephrops norvegicus</i>	VII Functiol unit 16				29%	45%	14%						
<i>Nephrops norvegicus</i>	VII Functiol unit 17, 18		928.7		6%	39%	32%						
<i>Nephrops norvegicus</i>	VII Functiol unit 19		3699		6%	39%	32%						
<i>Nephrops norvegicus</i>	VII Functiol unit 20-21		3892		6%	39%	32%						
<i>Nephrops norvegicus</i>	VII Functiol unit 22		3404		6%	39%	32%						33%
<i>Nephrops norvegicus</i>	VIII, IX Functiol unit 23, 24				3%								
<i>Nephrops norvegicus</i>	VIII, IX Functiol unit 25, 31				82%								
<i>Nephrops norvegicus</i>	VIII, IX Functiol unit 26-27, 28-29, 30				25%								
<i>Pleuronectes platessa</i>	VIII, IX, X				0%						17%		
<i>Argenti spp.</i>	all areas					0%	5%					7%	6%
<i>Lophius budegassa</i>	IV, VI				0%	4%	73%		550		1%	10%	
<i>Lophius budegassa</i>	VIIb-k, VIIIabd				8%	10%	21%		3110		4%	8%	
<i>Lophius piscatorius</i>	IV, VI		587.1		0%	4%	73%		550		1%	10%	
<i>Lophius piscatorius</i>	VIIb-k, VIIIabd		2445		8%	10%	21%		3110		4%	8%	
<i>Aphanopus spp.</i>	all areas				5%	0%	0%				3%	3%	3%
<i>Beryx spp.</i>	all areas, excluding X and IXa				27%	0%	0%				23%	3%	3%
<i>Beryx spp.</i>	IXa and X				27%	0%	0%				23%	3%	3%
<i>Dasyatis pastica</i>	VII, VIII						15%				11%	0%	26%
<i>Pagellus bogaraveo</i>	IXa, X				29%		0%				28%		1%
<i>Trachurus picturatus</i>	VIII, IX, X										38%		
<i>Trisopterus spp.</i>	all areas									836			

High resolution differences. Excluding species with <200T landings and less than 3% TAC, and those cases identified in Table 3. Differences tended to be related to individual MS. The number of cases in which landing differences of >10T was 12 cases (Table 5). The number of cases in which TAC differences of >10% was 14 cases (Table 6).

Table 5 Differences in landings greater than 10 tonnes.

Species	Area	Landings(T) Differences		
		ES	IE	UK
Capros aper	V, VI,VII	0	32405	0
Lepidorhombus whiffiagonis	VII, VIIIabd	0	2570	2988
Pecten maximus	IV, VI, VII	0	3	3605
Lepidorhombus whiffiagonis	VI	0	450	579
Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX	0	945	1
Pollachius virens	VII, VIII	0	179	0
Cancer pagurus	all areas	0	45	0
Clupea harengus	VIIa	0	13	1
Clupea harengus	VIa	0	12	1
Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	1	11	1
Micromesistius poutassou	I-IX, XII, XIV	1	9	1
Melanogrammus aeglefinus	VIIb-k	0	9	0
Gadus morhua	VIIe-k	0	6	1
Microstomus kitt	all areas	0	7	0
Clupea harengus	VIIj	0	6	0
Zeus faber	all areas	1	5	0
Pollachius pollachius	all areas except IX, X	0	5	1
Glyptocephalus cynoglossus	VI, VII	0	4	1
Melanogrammus aeglefinus	VIa	0	3	1
Melanogrammus aeglefinus	VIIa	0	3	1
Molva molva	all areas	0	4	0
Merlangius merlangus	VIIe-k	0	3	0
Maja squido	V, VI,VII	0	3	0
Homarus gammarus	all areas	0	2	1
Dicentrarchus labrax	all areas, excluding IX	1	0	1
Melanogrammus aeglefinus	Vb	0	0	1
Melanogrammus aeglefinus	Vib	0	0	1
Pollachius virens	Vb	0	0	1
Sebastes mentella	ICES Sub areas V, VI, XII, XIV & FO SA 2 + (Div. 1F + 3K)	1	0	0
Aspitrigla cuculus	all areas	1	0	0
Pleuronectes platessa	VIIe	0	0	1
Helicolenus dactylopterus	all areas	1	0	0
Molva dypterygia	all areas, excluding X	1	0	0
Mullus surmuletus	all areas	1	0	0
Alepocephalus bairdii	VI, XII	1	0	0
Conger conger	all areas, excluding X	1	0	0
Dicologlossa cuneata	VIIIc, IX	1	0	0
Octopus vulgaris	VIIIc, IXa	1	0	0
Sardi pilchardus	VIIIc, IXa	1	0	0
Sardi pilchardus	VIIIabd	1	0	0

Table 6 Differences in TAC greater than 10%

Species	Area	% TAC Differences		
		ES	IE	UK
Clupea harengus	VIIa	0	26	26
Trachurus trachurus	VIIIc, IXa	38	0	0
Pleuronectes platessa	VIIIfg	0	31	3
Molva dypterygia	all areas, excluding X	3	0	19
Pleuronectes platessa	VIIh-k	0	18	4
Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	7	5	9
Engraulis encrasicolus	IXa (only Cádiz)	20	0	0
Pollachius pollachius	IX, X	18	0	0
Micromesistius poutassou	I-IX, XII, XIV	13	2	3
Phycis blennoides	all areas	2	2	10
Solea solea	VIIIfg	0	0	14
Pollachius pollachius	all areas except IX, X	10	0	2
Merlangius merlangus	VIII	12	0	0
Merlangius merlangus	VIIe-k	0	7	5
Solea solea	VIIa	0	2	10
Lepidorhombus whiffiagonis	VII, VIIIab	5	1	4
Pleuronectes platessa	VIIa	0	9	1
Molva molva	all areas	6	1	2
Lophius budegassa	VIIIc, IXa	8	0	0
Lophius piscatorius	VIIIc, IXa	8	0	0
Solea solea	VIIhjk	0	5	1
Melanogrammus aeglefinus	VIa	0	3	4
Pleuronectes platessa	VIIe	0	0	6
Engraulis encrasicolus	VIII	5	0	0
Merlangius merlangus	VIa	0	5	0
Merlangius merlangus	VIIb	0	5	0
Gadus morhua	VIIa	0	2	3
Melanogrammus aeglefinus	VIIa	0	0	4
Gadus morhua	VIIe-k	0	3	1
Merlangius merlangus	VIIa	0	1	2
Lepidorhombus boscii	VIIIc, IXa	3	0	0
Lepidorhombus whiffiagonis	VIIIc, IXa	3	0	0
Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX	0	1	2
Lepidorhombus whiffiagonis	VI	0	1	1
Pollachius virens	Vb	0	0	1
Solea solea	VIIe	0	0	1
Melanogrammus aeglefinus	VIIb-k	0	0	1
Melanogrammus aeglefinus	Vib	0	0	1
Gadus morhua	VIIb	0	0	0

Utilisation of RDB metadata for STECF evaluation of MS national plans

The data stored in the RDB can form the basis of metadata reports relating to both the execution of the national workplan and metrics of data quality.

Both the requirements to a) evaluate the execution of the national Work Plan and b) the quality of the data collected by member states, fall within the remit of the STECF. The STECF 17-11 report notes that regional data bases should be used to facilitate MS producing tables for the Annual Report and to inform STECF during evaluation of the quality of the data collected by MS.

The process of achieving this aim will involve a number of steps

- Data uploaded to the RDB needs to be identifiable to the National Workplan commitments set out in table 4A, dealing with sampling designs, and potentially 1C dealing with the biological data collection and for the required species.
- The drafting of an Annual Report template which is compatible with being populated in part or in full, through RDB derived data. This template should however not be such that the formats preclude MS not in a position to utilise regional data bases.
- The automated checking of the elements of National Work plan templates with the corresponding elements of Annual Report templates.
- Guidelines for the assessment of the elements of any automated procedure as to their relevance, how they should be interpreted, and the insights that they can, or cannot, provide about the execution and quality of the MS data collection.

It is recognised that an automated process can have huge efficiency and quality benefits, but it is one that cannot, and should not, be imposed on MS. Rather it is a process that can be developed and refined over time.

The data for 2016 in the RDB cannot be related to National Work plans, but the simple audit of the sampling data by sampling country can provide an indication of the potential of the automation process. These tables are generated using the R function `sampleInv` (which was also used to summarise the sample data). The table `x` quantifies the sampling by sampling country, and sample type; table `x` summarises the sample numbers by species for a particular country.

sampCtry	sampType	days	sites	vessels	trips	nspp	lengthFreq	bioSites	bioTrips	bioSpp	wght	ages	lengths	sex	maturity
BEL	S	157	9	16	34	15	403677	9	32	7	0	4215	4215	0	0
BEL	D	NA	NA	NA	NA	NA	NA	9	33	7	9106	9106	9106	8593	6903
DEU	S	220	13	10	33	107	235321	32	128	15	23194	27088	29973	18429	21985
DNK	S	242	28	128	341	96	210771	27	336	59	53786	17830	53786	12424	88
DNK	M	231	36	258	811	32	79557	36	812	31	52561	23570	52561	5243	3733
DNK	D	14	11	1	17	9	1164	11	17	9	752	343	752	56	25
ENG	S	230	42	134	223	128	308090	28	150	10	0	3037	3143	3022	0
ENG	M	311	67	560	1972	52	271891	42	871	18	1905	21318	24745	15593	3427
ENG	D	2	2	2	2	1	199	NA	NA	NA	NA	NA	NA	NA	NA
ESP	S	331	32	128	281	182	302766	4	12	32	34189	4981	34239	33558	32468
ESP	M	273	22	447	1313	146	408772	12	136	12	7317	5645	8357	6953	7047
ESP	V	NA	NA	NA	NA	NA	NA	19	272	18	14615	11660	17632	15066	8946
EST	M	95	14	23	137	6	22215	14	144	6	15755	15078	15755	14756	14849
FIN	M	94	1	1	124	26	46087	1	116	5	4021	3647	4021	3845	3564
FIN	S	115	1	1	186	27	10955	1	185	8	5307	2597	5308	5048	3918
IRL	D	222	1	174	636	26	156744	1	529	18	31696	25811	31721	11372	0
IRL	S	172	14	26	50	103	66526	10	30	6	1844	1844	1844	539	0
LVA	S	128	2	1	137	20	54458	1	117	6	15274	14585	15274	12769	12787
LVA	V	NA	NA	NA	NA	NA	NA	1	178	5	1458	1439	1466	185	0
NIR	S	156	7	1	139	57	150239	4	34	4	0	1861	1861	0	0
NIR	D	37	3	1	91	19	8277	2	27	3	1673	1737	1750	1600	1600
NLD	M	275	11	118	659	41	172448	7	368	18	18336	17435	18336	0	16843
POL	S	117	14	25	79	65	52826	14	77	14	7670	7670	7670	7657	7420
POL	M	101	15	40	131	23	17393	15	130	15	6697	6697	6697	6697	6551
PRT	M	246	21	1	3039	160	4944820	NA	NA	NA	NA	NA	NA	NA	NA
PRT	S	73	10	1	73	137	20931	3	11	2	490	0	491	363	0
PRT	V	NA	NA	NA	NA	NA	NA	9	350	23	16123	4816	20807	20124	17299
SCT	S	305	21	118	228	123	507931	19	178	4	0	7837	7837	0	0
SCT	M	228	18	293	844	44	234158	10	529	11	0	18053	18053	3322	3322
SWE	S	114	39	92	154	104	108179	38	152	7	7743	7981	34935	26121	155
SWE	M	194	41	5	356	13	45689	41	366	5	24449	19811	24682	15882	15877
SWE	D	12	8	11	12	20	4709	8	12	1	0	0	4881	4881	0
WLS	M	24	13	37	48	10	3278	5	17	4	0	449	449	158	0

Annex 9 – Annual Meeting Sub group Outcome: Research surveys and task sharing

Cost-sharing agreement for participation to the Blue Whiting survey 2018-2019

Having regard;

- Article 5.1c of REGULATION (EU) 2017/1004 stipulating the establishment of thresholds below which it is not mandatory for Member States to carry out surveys at sea;
- Article 5.6 REGULATION (EU) 2017/1004 stipulating that these thresholds for stocks subject to catch limits shall be based upon the share of the relevant Members in the TAC that are available for the Union;
- Chapter V.7 of COMMISSION IMPLEMENTING DECISION (EU) 2016/1251 stipulating that the threshold for participation to a survey is set at 3%;
- Article 5.5 of REGULATION (EU) 2017/1004 stipulating that there is a need to avoid disruption of time-series of data
- Chapter IV.4 of COMMISSION IMPLEMENTING DECISION (EU) 2016/1251 stipulating Member States shall guarantee continuity with previous survey designs;
- Article 9.8 of REGULATION (EU) 2017/1004 stipulating that regional work plans may contain cost-sharing arrangements for participation in research surveys at sea
- Table 10 of COMMISSION IMPLEMENTING DECISION (EU) 2016/1251 listing the Blue Whiting survey as a mandatory survey

Having acknowledged;

- that the scientific responsibility as well as survey planning and reporting lies with the ICES Working Group on International Pelagic Surveys;
- that TAC shares by Member State for 2017 form the basis for cost-sharing in 2018 and 2019.
- to include this agreement in full in every relevant National Workplan.

The following Member States have agreed to share the vessel costs for the Blue Whiting survey: Denmark, France, Germany, Ireland, Spain, Sweden, The Netherlands, United Kingdom.

Cost-sharing model

Cost-sharing is based on a cost-sharing key following the Gothenburg-model (RCG subgroup 2017²). This model will be applied to the vessel costs made by Ireland (carried out by R/V Celtic Explorer) and The Netherlands (carried out by R/V Tridens) for the duration of the survey (total survey time, including calibration, vessel transfers, excluding mid-cruise-breaks) for years 2018 and 2019. The respective vessel costs are based on the vessel's tariff of the preceding year. This tariff is based on EMFF simplified vessel costs.

Application of the model leads to the following key:

² Report of the pan-regional RCG subgroup on cost sharing of research surveys at sea, Gothenburg 2016.

Blue Whiting TAC	TAC 2017 (ton)	TAC share	Tonnage >3%	recalculated percentage with 3% threshold (key)
Belgium	0	0.00%		
Denmark	58,818	15.27%	58,818	15.45%
Estonia	0	0.00%		
France	40,933	10.62%	40,933	10.75%
Germany	22,869	5.94%	22,869	6.01%
Ireland	45,547	11.82%	45,547	11.97%
Latvia	0	0.00%		
Lithuania	0	0.00%		
Poland	0	0.00%		
Portugal	4,632	1.20%		
Spain	49,865	12.94%	49,865	13.10%
Sweden	14,550	3.78%	14,550	3.82%
The Netherlands	71,721	18.62%	71,721	18.84%
United Kingdom	76,319	19.81%	76,319	20.05%
European Union	385,254	100%	380,622	100%

Duration and governance:

This agreement covers cost-sharing for the 2018 and 2019 Blue Whiting survey. Substantial changes to survey design, survey participations or substantial legal amendments automatically lead to a review of this agreement. Duly justified, participating Member States may request a review. This survey falls under the remit of RCG North Atlantic as such this agreement will form a part of the Regional Workplan for the North Atlantic.

Invoices should be sent to the MS concerned before November 1.

Signatures

Member State	Name	Date	Signature
Denmark			
France			
Germany			
Ireland			
Spain			
Sweden			
The Netherlands			
United Kingdom			

Annex 10 – Annual Meeting Sub group Outcome: Eels and Salmon (RCG Baltic)

Introduction

The Diadromous fish Sub Group (DSG) of the Baltic Regional Coordination Group (RCG Baltic) met in Turku, Finland, from September 4-8 2017. The sub group was attended by 11 experts on Atlantic salmon, sea trout, and eel, plus one person each from the ICES Secretariat and DG MARE. The experts represented seven countries, although from outside the Baltic area only the United Kingdom was represented at the meeting.

The draft ToRs were discussed and agreed by the sub group in plenary, before being allocated as tasks to individual members. It was decided to structure this annex according to the ToRs with a slightly changed order, so a particular line of logic was followed.

A series of questions are posed to the ICES Working Groups in their role as end users. These questions are highlighted in the relevant text sections, but also tabulated at the end of this annex to ease their transmission to ICES.

ToRs

ToR 1: Review aims and objectives of the RCGs to clarify those most relevant to diadromous species, and use these to form a virtual RCG-Diadromous

Regulation (EU) 2017/1004 of the European Parliament and of the Council on the establishment of a Union framework for the collection, management and use of data in fisheries sector and support for scientific advice regarding the Common Fisheries Policy (CFP), imposed the necessity to sample eels (*Anguilla anguilla*) and Atlantic salmon (*Salmo salar*) in relevant marine and inland waters, as well as anadromous trout (*S. trutta*) in the Baltic Region (but not Atlantic), to enable an ecosystem-based approach to fisheries management and conservation as necessary for the operation of the common fisheries policy.

The purpose of RCGs in general

According to the COMMISSION IMPLEMENTING DECISION (EU) 2016/1701, and the REGULATION (EU) 2017/1004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 (DCF Recast), Member States and the Commission shall coordinate their efforts and cooperate in order to further improve the quality, timeliness and coverage of data enabling further improvement of the reliability of scientific advice, the quality of the work plans and the working methods of the regional fisheries management organisations to which the Union is contracting party or observer and of international scientific bodies.

In view of the objective of the Common Fisheries Policy to give more responsibility to Member States and to better involve end-users of scientific data in data collection, regional coordination should be a continuous process coordinated by regional coordination groups (RCGs) for each marine region (Baltic, North Sea & Eastern Arctic, North Atlantic, Mediterranean & Black Sea).

RCGs shall consist of experts appointed by Member States, including national correspondents, and the Commission.

RCGs should develop and implement 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. The RCGs should also aim to develop and implement regional databases, and should start all the necessary preparatory steps in order to attain that goal.

Member States should determine the way they collect data, but in order to be able to combine data on a regional level in a meaningful way, minimum requirements for data quality, coverage and compatibility should be agreed by Member States at regional level. When there is general agreement on the methods at regional level, RCGs should, on the basis of that agreement, submit a draft regional work plan for approval by the Commission.

Those draft regional work plans may include procedures, methods, quality assurance and quality control for collecting and processing data, regionally coordinated sampling strategies and conditions for delivery of data in regional databases. They may also contain cost-sharing arrangements for participation in research surveys at sea. A regional work plan shall be considered to replace or supplement the relevant parts of the national work plans of each of the Member States concerned.

The process to determine the details of methodologies to be applied in collecting data should essentially include cooperation between Member States and data users in RCGs, and validation by the Commission through the approval of work plans submitted by Member States.

In preparing its national work plan, each Member State shall, in the framework of the regional coordination groups referred to in Article 9, cooperate and coordinate its efforts with other Member States, in particular those in the same marine region, to ensure sufficient and efficient coverage and avoid duplication of data collection activities. In that process, Member States shall also aim to involve relevant stakeholders at the appropriate level. Where appropriate, such cooperation and coordination may also take place outside the framework of the RCGs. These legislations specified a series of regional coordinations relevant to diadromous species:

- Data shall be collected to enable valid estimates to be derived for the type of fisheries, temporal periods and areas based on end-user needs agreed at marine region level. The frequency of data collection is to be coordinated at marine region level, unless stated otherwise in this Annex and corresponding tables.
- For commercial fisheries, the temporal resolution of collecting data on volume and length frequency of all catch fractions (including discards and unwanted catches), on mean-weight and age distribution of catches of the stocks shall be coordinated at marine region level based on end-user needs. The selection of stocks from which sex-ratio, maturity and fecundity data have to be collected, the temporal resolution shall be coordinated at marine region level based on end-user needs.
- For recreational fisheries, annual volume (numbers and weights or length) of catches and releases for the listed species and/or the species identified at marine region level as needed for fisheries management purposes, and (sic) end-user needs for age or other biological data as specified shall be evaluated at marine region level.
- The designation of index rivers to be monitored for eel and (or, sic) salmon shall be defined at regional level. The selection of stocks from which these variables have to be collected shall be coordinated at regional level and based on end-user needs. And as regards all wild salmon, information on the abundance of smolt and parr, and number of ascending individuals should be collected annually, unless agreed otherwise at regional level.

The form and purpose of the diadromous sub group

Given the geographical span as well as the regional need to organise and coordinate data collection of diadromous species, the Liaison Meeting of 2016 discussed the need for a pan-regional subgroup on these species (eel, salmon, sea trout) and wished to initiate a subgroup on this to prepare advise on what needs to be done for diadromous species in a Regional Workplan, including listing end user needs (variables required, frequency, intensity), including possible needs for regional agreements (e.g. setting index rivers) and time frame for implementation.

The diadromous experts considered the proposal for a pan regional sub group on diadromous species, confirmed this proposal, and therefore initiated the Diadromous Sub Group (DSG). The DSG should be considered as a subgroup of all four RCGs (North Atlantic, North Sea & Eastern Arctic, Baltic, and Mediterranean & Black Sea). As such and in addition to intersessional work, the DSG will meet annually, attending alternating venues and meetings of these RCGs.

The DSG has the following aims and objectives with reference to regional coordination:

- Develop and implement 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.
- Aim to develop and implement regional databases, and should start all the necessary preparatory steps in order to attain that goal.
- To regionally coordinate eel, salmon and sea trout data collection
- Prepare regional work plans
- Ensure information flow between member states and relevant end-users such as the ICES assessment working groups
- Ease the reporting of EU MAP National Work Plans and Technical Reports by creation of guidelines or clarify uncertainties,
- Advise on the evaluation of sampling in these plans and reports
- Develop sampling schemes
- Define quality and identify suitable quality indicators for these evaluations, and sampling schemes
- Advise on regional and national data collection programmes under the EU MAP in support of stock assessments

The DSG will follow the Rules on Procedures set for all the RCGs. The Rules on Procedures for the Baltic RCG are provided in Annex 7 of this report. It is assumed that the other RCGs will adopt the same or similar Rules on Procedures.

According to these RCG Rules, the RCGs set ToRs for the sub-groups, so it is anticipated the ToRs of the DSG will be set via the four RCGs, plus any others proposed by the DSG itself. The DSG has proposed the aims and objectives above as a draft set of ToRs for 2017/18, subject to approval of the Liaison Meeting and RCGs.

Note that other diadromous species such as shads, lampreys and smelt, and sea trout outside the Baltic, are outside the remit of the DSG for now because data collection is not required on them by the EU MAP. But data collection and assessment of some of them is important and opportunities and drivers for regional coordination should be revisited from time to time.

ToR 4. Consider the circumstances that make sense for Regionalisation (coordination) of data collection for each species.

As part of the defining the aims and objectives, the DSG considered the merits of regional coordination of salmon, sea trout and eels in support of stock assessments. As a result of this ToR 4 is reported out of sequence. Regional coordination of especially salmon in the Baltic is well established, though not fully implemented for all stocks or sea trout. Outside the Baltic regional coordination for salmon and eel is less well established.

Baltic eel

The European eel, *Anguilla anguilla* (L.), is found and exploited all over Europe, northern Africa and Mediterranean parts of Asia. The whole stock constitutes a single, panmictic population, spawning in

the far-out Sargasso Sea. On the continent, eels occur in coastal areas, estuaries, lagoons, rivers, lakes, marshes, streams and ditches. In the past century, fishing yield has gradually declined to below 10% of former levels. In 1980, a prolonged recruitment decline started, down to only 1-10% nowadays.

The eel in the Baltic constitutes an important part of the total European stock; the pre-amble of the Eel Regulation stresses the need to devote special attention to this area. Catches in commercial fisheries in the Baltic amount to approx. 1250 t, out of a European total of 5000 t (FAO data, since 2000, no trend in percentage). Most of this concerns catches in inland waters; for marine waters, Baltic catches amount to 500 t, out of a European total of 600-800 t in marine waters. Recently estimated stock indicators (current, potential and pristine biomasses) indicate that the Baltic comprises just over a quarter of the total European stock (this comprises only EU member states that did assess their stock; a substantial number of member states did not, and no non-EU countries did).

Across the whole European distribution area, biological traits, habitat characteristics and exploitation patterns of the eel differ fundamentally. Within the Baltic, stock abundance and anthropogenic pressures vary over orders of magnitude between habitats and latitudes, and the importance of different anthropogenic impacts varies from area to area. A special position is taken by the fishery on emigrating silver eel in the Straits between Denmark and Sweden, exploiting eels derived from the stocks scattered all over the Baltic; annual catches of these fisheries come at almost 500 t, equally divided between the two countries.

In 2008, Eel Management Plans have been developed on a national basis without mutual coordination, applying a variety of assessment methods, often based on freshly started national data series. The governments cooperating in HELCOM aim for integration of their national plans. In 2010, a first Baltic Eel workshop was jointly organized by HELCOM and ICES. This workshop compiled an overview of available information on the eel stock in the Baltic.

In 2012 and 2015 (and again in summer 2018), EU Member States were obliged under the Eel Regulation to report on the status of their eel stocks, and the effect of their management plans. The template for these post-evaluation reports provided a standardised reporting system for national stock indicators, allowing for mutual comparison, international integration and evaluation against the targets. Figure 9, below, provides an extract of the results for the Baltic, for the year 2015. This figure highlights a major problem in the monitoring and assessment of the eel in the Baltic: though most Member States collect basic data, a substantial number of Member States do not assess their part of the stock, their impacts and the effect of their protective actions. This omission not only hampers the evaluation of national actions, but also disables the evaluation of the interactions between Baltic member states, and the integration at the pan-Baltic level. The mutual interactions thus remained unquantified, and the national contributions to the urgently required protection of the shared stock are hard to compare. A comprehensive coordination and integration, covering monitoring, assessments and management evaluation, is obviously badly needed.

Outside the Baltic (not shown), non-reporting is an issue, too, but no direct interaction between member states occurs in impacts or protective measures.

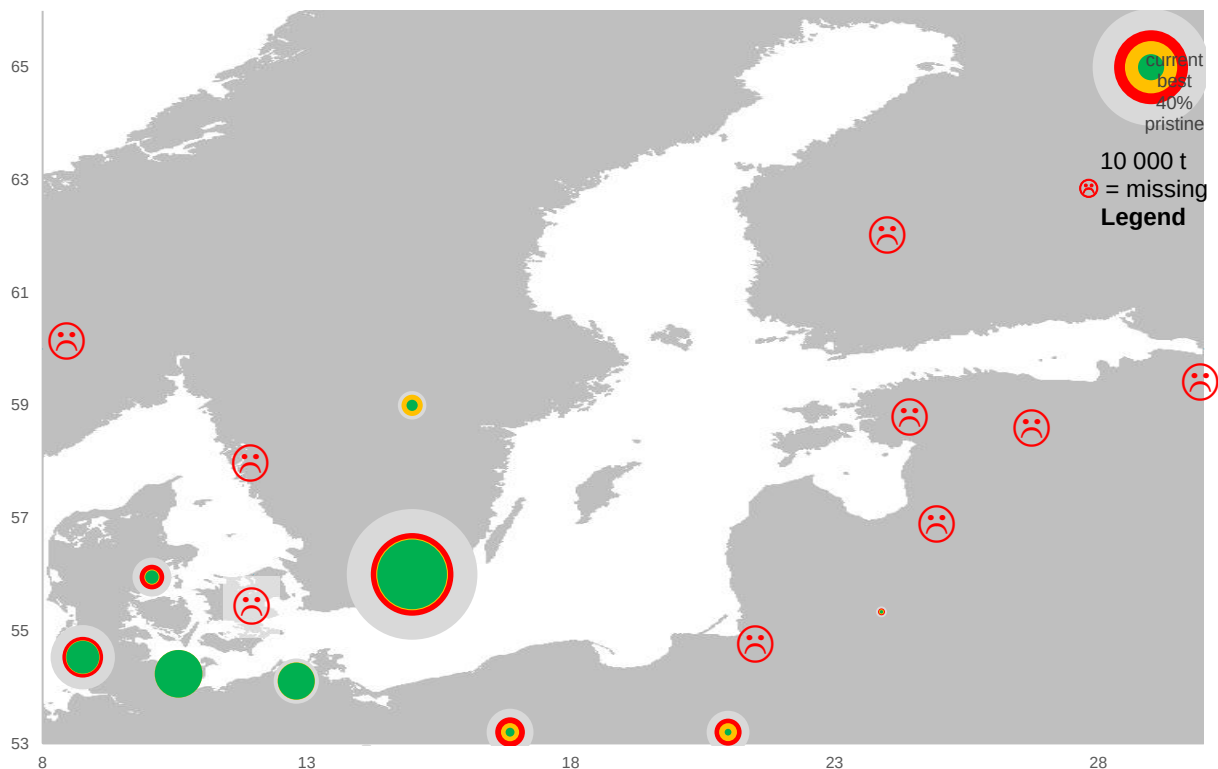


Figure 9 Estimates of silver eel runs and management targets per eel management unit, reported in 2015. For each area, estimates are given for the current silver eel run (current = green), the potential run given the current low recruitment (best = orange), the escapement target of the EU Eel Regulation (40%, red), and the pristine biomass estimate (pristine = grey); for areas without information, a weeping smiley (☹) is shown (Data from ICES, 2016c).

Eel outside the Baltic

The DSG recognizes that regional coordination for eel in the Mediterranean may be beneficial, and the General Fisheries Commission for the Mediterranean (GFCM) is thought to be developing a regional management plan. However, as little information was available to the DSG, it is **recommended** to put this question to the RCG Mediterranean & Black sea and ICES WGEEL:

- **RCG Mediterranean & Black Sea to consider and report any benefits to eel assessment of regional coordination of data collection in the Mediterranean.**
- **WGEEL to consider and report any benefits to eel assessment of regional coordination of data collection in the Mediterranean.**

The merits of regional coordination for eels in the North Sea & Eastern Arctic, and North Atlantic regions are more difficult to define. Some potential opportunities were briefly explored for eel.

Recruitment indices: WGEEL would like full coverage across EMUs and beyond. However, consideration of regional coordination would also benefit from understanding the relative importance of individual indices to the assessment. WGEEL could analyse the contributions of the indices within regions to examine whether we can establish guidelines for the number and distribution of indices. In addition, the RCG Med&BS has proposed pilot studies of eel recruitment.

Escapement and anthropogenic mortality rates (including catches & landings): catches/landings amounts required for all fisheries; anthropogenic mortality rates (fisheries & others) are required for each eel management unit. MS use various methods to develop these stock indicators, and therefore use various types of data. Although eel management plans were approved through scientific technical review in 2009/2010 at first implementation, some analytical methods have developed further since then but not all have been reviewed. The WGEEL has noted in annual reports that the data quality is uncertain and should be determined, e.g. statistically sound sampling schemes, appropriate spatial and impacts coverage. WGEEL has made preliminary proposals for data quality indicators but work remains to be done.

In general, however, as the North Sea & Eastern Arctic, and North Atlantic regions were not well represented at the DSG 2017 it was **recommended** to ask these questions to the WGEEL:

- **WGEEL to consider and recommend any regional coordination of data collection in support of eel stock assessment in the North Sea & Eastern Arctic, and North Atlantic RCG regions.**
- **WGEEL to advise on data quality indicators, the quality of data supplied by MS, the effect of these qualities on the assessments, and therefore identify any significant improvements in data quality required.**

Baltic salmon & sea trout

For Baltic salmon and sea trout the circumstances that make sense for regionalisation of data collection are covered under ToR 2 in the section below. Still DSG **recommends** it would be prudent to request WGBAST to answer this question:

- **WGBAST to consider and recommend any regional coordination of data collection in support of Atlantic salmon and sea trout assessment in the Baltic.**

At an ICES workshop in 2012 on DCF Data for eel and salmon (WKESDCF; ICES 2012a) a comprehensive list of proposals for data collection was produced. Those recommendations were recently reviewed and commented by WGBAST (ICES 2016d) with respect to Baltic salmon. Table 7 provides an updated outline of the data requirements by WGBAST, and to what extent such data are provided by the current DCF. It also gives an overview on whether or not these data are used.

Type of data	Collected under DCF	Available to WG	Reviewed and evaluated by WG	Used in current assessment	Future plans	Notes
Fleet capacity	yes	no *)	no	no	n	Incompatible with current assessment model
Fuel consumption	yes	no *)	no	no	n	Incompatible with current assessment model
Fishing effort	yes	yes	yes	yes	n	-
Landings	yes	yes	yes	yes	n	-
Discards	yes	yes	yes	yes	n	-
Recreational catches	yes	yes	yes	yes	increased use	-
Recreational effort	yes	yes	yes	no	increased use	-
Age composition	yes	yes	yes	partly used	increased use	Only river samples used at present
Wild/reared origin (scale reading)	yes	yes	yes	yes	n	-
Length & weight at age	yes	yes	yes	partly used	n	Not incorporated in current assessment model
Sex ratios	yes	yes	yes	partly used	n	Not incorporated in current assessment model, river samples used
Maturity	yes***)	no ***)	no	no	n	-
Economic data	yes	yes	partly used	no	n	Incompatible with current assessment model
Data processing industry	yes	no *)	no	no	n	Incompatible with current assessment model
Electrofishing data	yes	yes	yes	yes	evaluation needed	-
Smolt trapping data	yes	yes	yes	yes	increased use	-
Tagging data	no	yes	yes	yes	n	No new Carlin-data used since 2010 (too few recoveries). In some rivers PIT-tags are used.
Fish ladder data	yes	yes	yes	yes****)	increased use	Several rivers with fish counters are not funded within DCF
Genetic data	yes **)	yes	yes	partly used	evaluation needed	Not incorporated in current assessment model, used as independent information

*) Not asked for by the working group.

***) Not mandatory under current DCF.

****) DCF requires collection but only a few, if any, countries are doing it.

****) Partial use.

n. No change.

Table 7 Overview of compatibility of Baltic salmon data collected under the DCF with the data needed for stock assessment.

At present, the various datasets listed in Table 1 are mainly retained in excel files kept by WGBAST experts. In addition to those data there are other sources of information used for the Baltic salmon assessment that are not collected under the DCF. Such information includes young fish releases and incidences of M74 (yolk sac phase mortality) at hatcheries, fish counting in several rivers and electrofishing performed within environmental monitoring programs. In addition, as described above, recreational fishery statistics and electrofishing data (parr densities) for sea trout plays crucial roles for assessment. All these data are so far retained in excel files, and should be considered to be transferred to corresponding ICES databases when possible.

The recent benchmark WKBALTSalmon (ICES 2017b) made an effort to transfer the data series of salmon and sea trout catches, discards and efforts from years 1992-2015 into InterCatch (the ICES web-based database). However, the data transfer failed, partly because all countries did not manage to submit all required data and the whole intended time series. Inputting of catch and effort data to ICES based InterCatch database is in process. Also the catch estimates of recreational fisheries are planned to soon be transferred into InterCatch.

In addition, salmon catch sampling data is retained in the RDB (at that part it is collected by MSs). So far age composition data is only partly used in the Baltic salmon assessment, but there are plans to increase the use of these data in the assessment (Table 7).

Atlantic salmon

Benefits to regional coordination for Atlantic salmon in the North Sea & Eastern Arctic, and North Atlantic regions were not immediately obvious to the DSG, possibly due to these regions being underrepresented at the DSG 2017. The DSG agreed to **recommend** the WGNAS to consider if regional coordination of data collection would be beneficial in these areas:

WGNAS to consider and recommend any regional coordination of data collection for Atlantic salmon assessment in the North Sea & Eastern Arctic, and North Atlantic RCG regions.

ToR 2: Review progress towards these aims and objectives since the 2016 Regional Coordination Meetings, and list the remaining tasks

Progress

As the DSG was formed and its aims and objectives drafted at the RCG Baltic 2017 meeting, there was no direct progress in this work since the RCMs in 2016. However, the ICES Working Groups WGBAST and WGEEL have done work that is relevant to the DSG. This work is summarized here, and more detail can be found in the cited WG reports. For WGNAS a summary of work relevant to DSG was available in the WKESDCF report (ICES, 2012a), of which a summary is presented here.

Baltic salmon and sea trout

The Baltic salmon and sea trout consist of multiple river stocks that are genetically distinct. Because of the pronounced population genetic structure, Baltic salmon and sea trout cannot be regarded as one single assessment or management unit. Instead, assessment is focused on restricted assessment units and rivers, and management objectives are evaluated both on an assessment unit level (salmon & trout) and on a river-by-river basis (salmon). Even though some salmon and sea trout rivers/streams are relatively small in terms of their production capacity, they may be important from a conservation perspective because of their unique genetic background and roles in local ecosystems.

During their feeding migrations salmon and sea trout stocks are subject to mixed-stock commercial and recreational fisheries in the sea (offshore and coastal), whereas fisheries in estuaries and rivers are mainly targeting a single stock. As a consequence, in addition to information collected from the commercial and recreational sea fisheries, data from fisheries and biological parameters collected in rivers are needed to assess stock status and fishing opportunities.

Baltic salmon

In the Baltic Sea there are currently 58 salmon rivers, out of which 28, 12 and 18 are considered as wild, mixed and reared, respectively. In addition, a relatively large number of potential rivers (several with ongoing reintroduction programs or occasional reproduction) exist. At present, ICES assesses stock status analytically for 17 wild salmon rivers. In addition the stock status of 25 rivers is assessed by expert evaluation based on available data.

Within the Baltic Sea area, six different assessment units (AUs) for salmon have been established (Figure 10 Grouping of Baltic salmon river-stocks into six assessment units used by WGBAST (wild salmon rivers marked in grey). The genetic variability between river stocks of an assessment unit is smaller than the genetic variability between river stocks of different units. In addition, river stocks of a particular unit exhibit similar migration patterns. Note that two Swedish “new” wild salmon rivers (Testeboån, AU3 and Kågeälven, AU2) are missing, and that not all Baltic rivers are indicated on the map. Figure 10). The grouping of rivers within an assessment unit is based on management objectives and biological and genetic characteristics of the river stocks contained in a unit. River stocks of a particular unit are presumed to exhibit similar migration patterns at sea. It can therefore be assumed that they are subjected to the same sea fisheries, experience the same exploitation rates and are affected by management of sea fisheries in the same way. In addition, the genetic variability between river stocks of an assessment unit is smaller than the genetic differences between river stocks of different units.

WGBAST has continuously described and summarised ongoing data collections and needs. The amount and quality of information available differs significantly among rivers and assessment units. Because of the discrepancies between the amounts of information available on wild salmon in different assessment units, the uncertainties in the assessment of stock status differ significantly between assessment units.

Over the years, WGBAST has repeatedly stressed the importance of the establishment of selected index rivers in all AUs. Monitoring in such rivers should consist of electrofishing, smolt trapping and counting of spawners. Index rivers are needed to monitor the actual importance of the fisheries for the future development of all river stocks within the AU, to estimate properly the at-sea survival, and to create stock–recruit functions to be able to calculate the actual potential smolt production capacity of the rivers and estimate future developments under different exploitation scenarios. However, until present full monitoring including all elements (parr, smolts, adults) has only taken place in a few index rivers not covering all AUs. Electrofishing data are also collected and used for assessment in all non-index rivers listed as wild. In the present assessment model for Baltic salmon it is not necessary to have annual surveys in every river; they could be carried out for instance every second or third year. However, monitoring in all non-index salmon rivers should be arranged so that each juvenile cohort is sampled at least once before smoltification. Further, decisions on when to collect electrofishing data must account for how well rivers are covered with monitoring sites, and by no means should be influenced by expected changes in abundance of salmon. Even a few years with smolt trapping in non-index rivers have been documented to give valuable complementary information; a smolt trap may be used for a couple of years and then moved along to another river. Occasional smolt trapping in non-index rivers could have a high priority in relation to annual high intensity electrofishing surveys. Tagging data are currently used for many purposes by WGBAST. Carlin-tag data are the basis of the current assessment models for salmon in the Main Basin and the Gulf of Bothnia, but because

the quality of the tag–recapture data has decreased considerably, there is a need for other fishery independent tagging systems (e.g. PIT tags) providing supplementary information on migrations and survival. Catch data on recreational fisheries is used in the Baltic salmon stock assessment. However, most estimates are uncertain and improvements in survey applications are needed. For example, the trolling fishery in the Baltic Main Basin has developed considerably and involves an increasing number of fishers in several countries (ICES 2017c). Quantity and quality of data from recreational fisheries in many rivers also need to be improved. To assess the total exploitation rate in the recreational fisheries, increased efforts to gather relevant data are needed from all countries involved. Analyses of sea catches are regularly carried out using scale reading and genetic markers (DNA). Scale reading data is used in the assessment for estimating proportions of wild and reared salmon. In contrast, estimates of river stock catch proportions (mixed stock analyses, MSA) based on genetic data combined with smolt age information (from scales) are currently not directly incorporated into the Baltic salmon stock assessment; however, MSA results have served as a valuable source of independent information for evaluations of the assessment. Both scale reading data and genetic analyses of catch samples are regarded important, but efforts should be taken to utilise this information (especially MSA) more in the assessment than hitherto. It is further important that the collection of samples for analysis is more flexible so that it can be adapted to changing needs (ICES 2015a, 2016d).

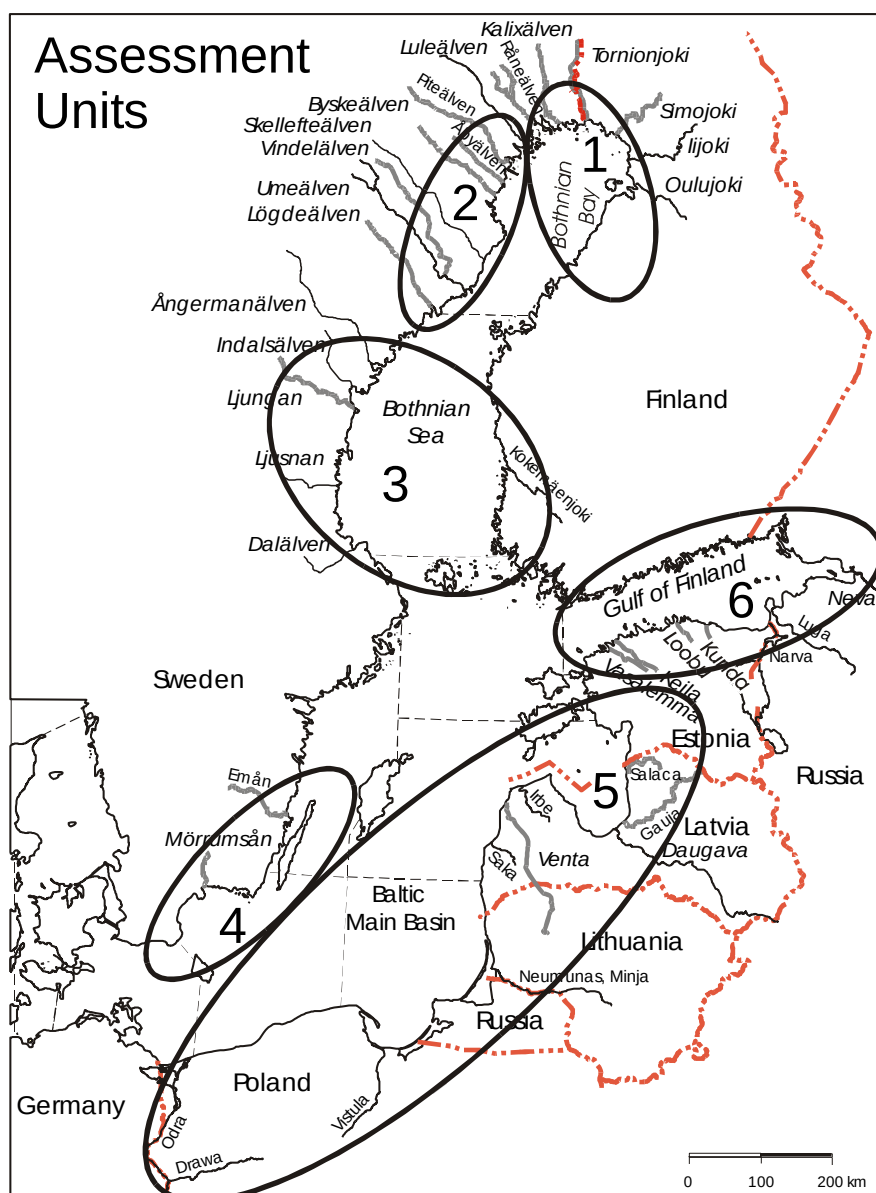


Figure 10 Grouping of Baltic salmon river-stocks into six assessment units used by WGBAST (wild salmon rivers marked in grey). The genetic variability between river stocks of an assessment unit is smaller than the genetic variability between river stocks of different units. In addition, river stocks of a particular unit exhibit similar migration patterns. Note that two Swedish “new” wild salmon rivers (Testeboån, AU3 and Kågeälven, AU2) are missing, and that not all Baltic rivers are indicated on the map.

Baltic sea trout

Sea trout populations exist in hundreds of smaller and larger rivers (including tributaries) spread across all countries around the Baltic Sea. Compared to salmon, sea trout has a more complex life cycle. Recreational sea trout catches are also perceived to be proportionally more important than for salmon, although there is much need for improved data collection of the heterogeneous recreational fishery in sea and rivers all around the Baltic (rod fishing from shore and boat, gill netting, etc.).

The current assessment of sea trout in the Baltic Sea is based on a statistical model based mainly on electrofishing densities, where other basic observations are also taken into account (tagging data, spawner counts, catch statistics, etc.). Because of the large number of river stocks, whereof many are lacking data, status has to be assessed on the regional level (currently the Baltic Sea is divided into five assessment areas for sea trout). A new working group within ICES Working Group on Sea Trout

(WGTRUTTA) is currently reviewing the Baltic model and other approaches for assessment of sea trout, including data needs.

With respect data collection for Baltic sea trout, WGBAST has emphasized that a better geographical coverage than hitherto, with a sufficient number of electrofishing sites from more typical trout streams, is important. This need is relevant both for the actual assessment as such, and in order to evaluate how well the application of the assessment model employed work in these areas. A better coverage is especially relevant in northern parts of the Baltic, where most present fishing sites are situated in larger rivers, chosen primarily for salmon monitoring. Also in the southwest Baltic there is currently a lack of sites being collected annually.

The current Baltic assessment model for sea trout builds on comparisons of observed parr densities (from electrofishing) with estimated maximum densities at sites with good conditions, no migration obstacles and no or low impact from fishing. This is to a large extent depending on expert judgment. If an array of sea trout index rivers, with counts of both smolt and returning adults, was established, it would be possible to express recruitment as a proportion of maximum density, and to include spawning targets. In addition, data on recreational catches should be consistently collected, taking into account the potentially high impact of recreational fisheries on sea trout stocks and the present lack of such data in several countries.

Eel

A joint data call, Data submission for advice for European eel under WGEEL – Part 1: 2017, with deadline 18th September was recently published by ICES, EIFAAC and GFCM (http://www.ices.dk/marine-data/Documents/Data_calls/20170816_Eel_data_call_2017.pdf). The data and metadata provided for this data call (2017) will support the annual stock assessment in support of the advice for the eel stock. The call was developed by the workshop WKEELDATA that defined the data requirements and data quality standards, modified WGEEL data spreadsheets, and planned work to create a future database with ICES Data Centre.

For practical reasons this data call is split into two parts. In part one, deadline 18th September 2017, data are requested on recruitment, catches and landings, restocking amounts and aquaculture production. Not only recruitment and catches and landings are relevant to the DCF, but all are relevant to assessment of eel stock status. The data types of Part 1 are further described in the WKEELDATA report (ICES, 2017d) as well as the data call, and below.

In Part 2, deadline in 2018 but date to be confirmed, data will be requested on annual update of the Part 1 data, plus the biomass and mortality estimates which are part of the EU Eel Regulation (Council Regulation 1100/2007). Part 2 is being developed by the WGEEL during and after its 2017 meeting.

Recruitment

- Recruitment data are defined as the quantities of eel caught at specific (index) locations as they 'recruit' to the local vicinity. These captures can be either by fisheries or fishery-independent studies, which include handnets, fykenets or trapping ladders.
- The WGEEL uses these time-series data to calculate the Recruitment Indices, relative to the reference period of 1960–1979, and the results form the basis of the annual Single-stock Advice reported to the EU Commission. These recruitment indices are also used by the EU CITES Scientific Review Group in their annual review of the Non-Detriment Finding position.
- Data should be provided as annual total values.
- The units of data are either numbers or weight (kg) of eel, or indices.
- Those recruitment dataseries used in the Recruitment Indices are described in detail in the ICES European eel Stock Annex:

(http://ices.dk/sites/pub/Publication%20Reports/Stock%20Annexes/2015/Anguilla_anguilla_S A.pdf). However, the data call also seeks new dataserries not listed in the Stock Annex.

- The recruitment series are categorized as glass eel, young eel, and larger yellow eel recruiting to continental habitats. The glass eel recruitment series are either comprised only of glass eel (i.e. zero age cohort) or a mixture of glass and young yellow eel. The young or larger yellow eel may consist of multiple year classes of eel but they are all 'recruiting' to the stock past the survey point in the same year.

Catches and Landings

- Catches are defined as the quantity of eel that are caught by fishing gears (defined by the FAO as the 'gross catch').
- Landings are defined as the quantity of eel that are retained after capture (defined by the FAO as the Retained Catch), or to put it another way, removed from the water basin or management unit. So, Landings should not include any eels subject to assisted migration within the same river basin, or scientific studies where they are returned alive to the waters where they were caught.
- The WGEEL uses these data to report trends in catches and landings in the ICES Single-stock Advice. This information is requested by the Administrative Agreement between ICES and the EU Commission.
- Data should be provided as annual total values, according to life stage (glass, yellow, and silver) and fishing activity type (commercial or recreational).
- The units of data are kg.
- As noted above, care should be taken to be clear whether the data reported are for catches or landings. The Stock Annex notes that there is a great heterogeneity among time-series of landings (also catches) because of inconsistencies in reporting by, and between, countries, as well as incomplete reporting of non-commercial and recreational fisheries.

Restocking

- Restocking data are defined as the quantity of eel that are released alive in-to waters of a basin or management unit other than the basin/management unit where they were caught (i.e. NOT including assisted upstream migration).
- The WGEEL uses these data to check against eel production estimates and anthropogenic mortality rates reported by countries.
- Data should be provided in annual totals per eel management unit.
- The units of data are numbers and kg of eel when they are restocked.
- Note that a potential consequence of restocking could be that estimates of silver eel production for the restocked basin could be higher than those of historic production.

Aquaculture production

- Aquaculture production data are defined as the quantity of eel produced on an annual basis from aquaculture facilities.
- The WGEEL uses these data in addressing its remit to report annually on the state of the stock, associated fisheries and other anthropogenic impacts.
- Data should be provided as annual total weights per country.
- The units of data are kg.
- Some aquaculture production data have previously been included in official landings statistics but this must be avoided.
- Some eel are grown in aquaculture for periods of time and then released alive to waters not necessarily those from where they were caught. This can be done for a variety of reasons. Such eels should be registered as re-stocked and not as aquaculture production.

North Atlantic salmon

According to the report of WKESDCF (ICES, 2012a) the data required to meet international commitments for the assessment and management of North Atlantic salmon fall into three broad categories:

- data requested by the North Atlantic Salmon Conservation Organisation (NASCO) to inform management;
- data requested by ICES to undertake international assessments; and
- data required by national/regional management agencies to establish stock reference points and undertake river-specific stock assessments according to NASCO principles.

The second category includes data required by WGNAS to run the stock assessment (Pre Fisheries Abundance and national Conservation Limit model) and forecast models and the time-series of data required for the North East Atlantic Commission (NEAC) Frame Work of Indicators (FWI). The data required to meet international commitments for the management of North Atlantic salmon stocks may therefore be summarized as follows:

Data are requested annually by NASCO:

- catches and landings by country, by location (river, estuary, coast);
- unreported catches by location (river, estuary, coast);
- numbers of salmon caught and released in recreational fisheries;
- production of farmed salmon; and
- production of ranched salmon.

Data requested and updated annually by ICES to undertake the NEAC stock assessment are:

- Catch data by nets and/or rods by country/region by sea age;
- Exploitation rate estimates relating to catches, index or monitored rivers;
- Unreported catches (as totals or ratio of reported catch).
- Data requested by ICES to undertake the NEAC stock assessment but not updated annually:
- Timing (midpoint) of home water returns by age (1 Sea Winter and Multi Sea Winter);
- Fecundity of adults by age (1SW and MSW);
- Sex ratios of adults by age (1SW and MSW);
- Age composition of smolts.

Data not specifically requested by ICES or NASCO but included in ICES advice to NASCO annually to inform on the key factors affecting salmon stock status are:

- Return rates to freshwater from juvenile migration for wild and hatchery fish providing a “proxy” for marine survival and long-term changes e.g. possibly linked to climate change.
- Smolt production and adult returns for index rivers
- Data required for the NASCO-NEAC Framework of Indicators:
- The time-series of data (e.g. returning stock counts, catches and smolt-to-adult return rates) used in the FWI are agreed at the start of any multi-annual regulatory measure, but may be changed with the adoption of a new multi-annual measure; national representatives will be expected to update the FWI time-series annually (by end of January).

Data required by national jurisdictions:

- Jurisdictions require different datasets to support the variety of methods, used to establish stock specific conservation limits and to assess annual compliance with these limits (as required under NASCO Agreements and Guidelines); these data may include data from counters, traps, electric fishing surveys and other sampling programmes.

These data requirements for North Atlantic salmon were compiled as part of the ICES Workshop on Eel and Salmon DCF Data (ICES, 2012a) and the assessment process is described in a Stock Annex (<http://ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2015/WGNAS/WGNAS%20Stock%20Annex%20for%20Atlantic%20salmon.pdf>). Even though the data requirements are not known to have changed, it would be prudent to ask WGNAS to consider if these still apply. It is therefore **recommended** to ask the following question to WGNAS:

- 1) What are the data needs for the individual EU member states in order to conduct an annual assessment for Atlantic salmon?**

In addition, the following two questions should also be asked to WGNAS to further inform the RCG on the assessment process:

- 2) Which are the appropriate management units for these assessments?**
- 3) Which are the appropriate rivers where data should be collected, and what is the rationale for selecting these particular rivers?**

Remaining tasks

DSG will shortly develop an intersessional plan of work from September 2017 to September 2018, and beyond. This will include reacting to the answers provided by the ICES WGs as end-users (questions below).

ToR 3. Ease the reporting of EU MAP National Work Plans and Technical Reports by clarifying what information goes where (i.e. how to report it correctly) and under what circumstances requests are not relevant.

In preparation for work to ease the reporting and evaluation of national work plans and technical reports, the DSG examined the recent STECF reports from 2016 and 2017. The following recommendations were extracted and are reproduced here. In addition to the recommendations specific to anadromous and catadromous species, some general recommendations are relevant to the planning and reporting of these species but are not listed here.

- It is clear that further guidance is needed by MS for example on whether sea trout (*Salmo trutta*) data are required in all areas rather than just the Baltic Sea as listed in tables 1A and 1E of the implementing decision 1251/2016.
- This table does not allow scientific evaluation of work plans. It provides a reference for compliance and is only informative. For quality evaluation of the work plans additional information would be required beyond this table.
- An appropriate Scheme ID would provide a reference to a completed line in Table 5A which would then link to any appropriate documents describing the sampling scheme and a reference to any external evaluation.
- To avoid confusion and aid clarity of meaning the heading Area has been changed to Region and Water Body to Sampling Site.

- The Scheme ID or a suitable method for creating one should be provided by the appropriate expert group (WGEEL, WGBAST, WGTRUTTA).
- The number of Eel Management Units (EMUs) and Sampling sites (Waterbodies) listed could be reduced significantly by describing the sampling schemes remotely following guidelines defined by the expert group.
- If a MS is not sampling an EMU, justification should be given in the field “reason for not sampling”. This justification can be accepted if it is in line with recommendations made by RCM and ICES/WGEEL.
- Survey ID – an appropriate expert working group should either provide the unique ID or instruction on how it is derived.
- Management unit – If management units are used, as in Eel Management Units (EMU), all of these should be listed in this field. The rivers sampled should be listed in the Sampling site field within that unit.
- It should be clarified that EU MAP chapter III.2.c applies not only to stocks where there are fisheries but to all relevant stocks/areas regardless whether there is a fishery or not.
- Sea trout (*Salmo trutta*) should be included in chapter III.2.c (the section on abundance of parr, smolts, and adults).
- It would be easier to describe (and review) the WPs for anadromous and catadromous species within a single table covering commercial and recreational fisheries, and fishery-independent requirements.
- Eurostat is not the most appropriate source of catch data for anadromous and catadromous species, so auto scripts for completing Table 1A do not work well for these species.
- The ICES WGs for salmon and sea trout (WGBAST, WGNAS, WGTRUTTA) and for eel (WGEEL) should be asked to recommend the most appropriate data sources.
- Any scientific evaluation of the Quality Assurance Framework for biological data (Table 5A) for anadromous and catadromous species should be documented.
- A key feature emphasised by the EWG 17-04 was the need to use the same structure across AR and NWP tables, to allow automating matching of tables.

ToR 5. Following the request from Baltic RCM 2016 and where necessary, agree on designated rivers and management units to be sampled.

The DSG considers that following the intent of the EU MAP, these questions should be directed to the end-users, i.e. the ICES assessment Working Groups.

However, in support of this the DSG began to develop proposals for criteria to identify these ‘index’ rivers. The example below is framed around proposals for eel in the Baltic.

Eel in the Baltic

In Commission Decision of 12 July 2016 (2016/1251/EU; O.J. L 207/113, 1.8.2016), it is stated “as regards eel, information (e.g. data, estimates, relative trends, etc.) collected annually in at least one river basin per eel management unit on: (i) the abundance of recruits; (ii) the abundance of the standing stock (yellow eel); and (iii) the number or weight and sex ratio of emigrating silver eels”. These rivers are commonly designated as “Index Rivers”.

The objective of sampling Index Rivers is to obtain comprehensive data on the eel stock, in a geographically limited area. This complements the objectives of making a stock assessment, in which specific stock indicators (abundance, mortalities) are derived, covering the stock in the whole management area.

The data to be collected in index rivers cover the incoming recruits (glass eel or young yellow eel), the standing stock (yellow eel), and the outgoing spawner escapement (silver eel). We note that this does

not include monitoring the anthropogenic impacts as such. Understanding the developments in standing stock and escapement, however, will require that these impacts are known.

Strategies in selecting appropriate index rivers might be:

- Selecting a river with minimal anthropogenic impacts, so that results reflect the biological potentials in the region, and at the same time serve as an indicator for the overall status of the global eel stock in particular, the recruitment (input) and for the potential spawner escapement (output) from/to the ocean. Due to the requirement on minimal anthropogenic impacts, it is likely that smaller streams will qualify under this heading. Monitoring incoming recruitment and outgoing escapement might be technically best feasible in smallest streams, but the smaller the stream, the less representative the stream will be for the area under concern.
- Selecting a river with anthropogenic impacts close to average conditions in the country. Results will provide an easy-to-grasp indicator of the status of the stock in the country concerned, and to a lesser extend of the impacts on the stock. Care should be taken, not to prioritise/avoid specific management measures in these river basins, that is: to keep a close watch on the representativeness of the index river for the rest of the country. Due to the requirement on “averageness”, this approach will select streams of average size in the country; keeping a watch on the “averageness” requires monitoring anthropogenic impacts, management measures, and their effects, both in the index river and in the rest of the country.
- Selecting a “random” river, in which anthropogenic impacts are known and monitored, which allows for explicit comparison to other rivers in which impacting factors have been quantified. In principle, any river may qualify for this, but a river close to average conditions is to be preferred. Interpretation of results will require a close (methodological) coordination between the monitoring of the selected index river and the whole-country assessment.

The requirement in EU-MAP to monitor Index Rivers has been established only recently. It is therefore recommended, that the approach for selecting appropriate rivers is further worked out, and possibly tested on existing data. The DSG therefore **recommends**:

- **WGEEL to work out the optimal approach for selecting the appropriate index rivers in the Baltic**

Baltic salmon and sea trout

For salmon and sea trout in the Baltic region, the WGBAST has provided some answers in its annual report (ICES 2017c), summarized above in the section under ToR 2. The approach for eel presented above might be a workable way forward for Baltic salmon and sea trout too, provided some caveats are considered. Aiming for small index rivers might be a good suggestion for sea trout, but not for salmon. In addition for Baltic salmon and sea trout the geographical units for which index rivers are considered would be the six Baltic Assessment Units, and not countries. A more in-depth discussion at WG level is appropriate here. The DSG therefore **recommends**:

- **WGBAST to work out the optimal approach for selecting the appropriate index rivers in the Baltic**

ToR 6. Consider a Quality assurance framework

RCG sub group on Quality has compiled and graphed landings per harbor, as a way to check for data submission errors. This compilation includes eels and salmon for marine commercial fisheries data as reported to the RDB. However, the database has not been designed in a way that incorporates all the

DCF Data collected for salmon, sea trout and eels because there are some data types that are unique to the diadromous species.

Baltic salmon and sea trout

Some data quality issues known to WGBAST are listed in the section under ToR 2.

Atlantic salmon

In 2017 the WGNAS (ICES 2017e) reported that there are significant uncertainties in some of the input data for the assessment models, particularly relating to unreported catches (used in the NEAC assessments). However, efforts are made to take account of these in the stock status and stock forecast models. Data deficiencies are recorded in the 'Quality Considerations' section of the annual advice document and specific concerns/ recommendations for improvement are included in WGNAS reports.

European eel

The Workshop on Eel Data (WKEELDATA: ICES, 2017d) evaluated whether it would be appropriate to modify InterCatch to suit all eel fisheries data. However, the WK concluded "the particularities of eel biology, fishery and related regulations makes it impossible to use InterCatch as an input for population assessment at its present stage" and "Because of its biological particularities (see above), it was concluded that WGEEL should have its own database within the ICES DataCentre". The WK has created a database structure to host most of the data which are used by WGEEL and in a format that is already transferable to ICES Data-Centre. The database for recruitment was created during WKEELDATA under Postgresql. All necessary SQL script can be found in ICES GIT:

<https://github.com/ices-eg/WGEEL>

The script to create the database:

https://github.com/ices-eg/WGEEL/blob/master/SQL/script_create_base_v2.sql

The script to transfer data from the old database / create new data

https://github.com/ices-eg/WGEEL/blob/master/SQL/transfer_from_old_database_script.sql

The WK also developed a data call for Eels, in two parts – see above DSG ToR 2.

Future work

As the representative of ICES attending the RCG Baltic 2017 indicated ICES is willing to adapt its RDB to suit eels, salmon and sea trout, the 'quality' sub group of the RCG Baltic will make a recommendation to ICES for the RDB to be modified to suit salmon, trout and eels. In support of that, the DSG provided details of what these other data types and circumstances were – see annex to 'quality' sub group report section.

However, the DSG noted that these details may not be complete and that the end-user assessment Working Groups should be asked to provide the definitive information.

Recommendation:

- The Regional Database can be modified to better incorporate the data collected for salmon, sea trout and eels under the DCF. The WGBAST, WGNAS and WGEEL are asked to list the data types that should be incorporated in the RDB to achieve this.

ToR 7. Advise on the Evaluation of sampling

This request is taken to be to define ways to evaluate whether national work plans are appropriate.

In **Error! Reference source not found.** we have depicted what kind of data is collected countrywise for eel, salmon and sea trout in the Baltic. As the required data not always fits the purposes and needs from end-users (i.e. the respective diadromous WG and assessment models), mandatory variables have been highlighted. In addition, also the extra variables required and collected in each MS are listed. As we are in a transition phase between DCF and EU-MAP, there will be some changes from 2017 to 2018. Information on what data are actually collected was given by the responsible scientists in each MS concerned.

Table 8 Overview of collected data on salmon, eel, and sea trout in the Baltic. Blue shaded cells indicate data mandatory collected under DC-MAP.

		General															In designated rivers						
Data collected/Country	Species	Landings	Effort	Discards	Landings (recreational)	Effort (recreational)	Length	Weight	Sex-ratio	Fin-clipping (wild/reared)	Life stage (like G, Y or S etc.)	Age (including wild/reared origin from scales)	Maturity (like Eye index, Durif's silver index etc.)	Fecundity	Anguillicola (swim bladder nematode)	Tagging data	Genetic data	Recruitment young eel/parr	Yellow eel abundance	Silver eel emmigration and sex-ratio	Smolt counting	Adult spawner counting	
Sweden	Eel	1	1?	n.a.	n.a.	n.a.	1	1	1	n.a.	1	1	1	0		1	n.a.	1	0	0	n.a.	n.a.	
	Salmon	1	1	1	1	(1)	1/0	1/0	1/0	1	n.a.	1/0	n.a.	1/0		1	1/0	1	n.a.	n.a.	1	1	
	Sea trout	1	1	1	0/1	0	1/0	1/0	1/0	0	n.a.	1/0	n.a.	1/0		1	0	0	n.a.	n.a.	(1)	(1)	
Finland	Eel	1					1	1	1		1	1	1	0					(1)	n.a.	n.a.		
	Salmon	1	1	1	1	(1)	1	1	1	0	n.a.	1/0	n.a.	1/0		1	1/0	1	n.a.	n.a.	1	1	
	Sea trout	1	1	1	1	0	1/0	1/0	1/0	0	n.a.	1/0	n.a.	1/0		1	0	0	n.a.	n.a.	(1)	(1)	
Estonia	Eel	1					1	1	1		1	1	1	1		1			0	1	1	n.a.	n.a.
	Salmon										n.a.								n.a.	n.a.			
	Sea trout										n.a.								n.a.	n.a.			
Latvia	Eel	1					1	1	1		1	(1)	1	0					0	1	1	n.a.	n.a.
	Salmon	1					1	1	1		n.a.	1	0	0					1	n.a.	n.a.		
	Sea trout	1					1	1	1		n.a.	1	0	0					1	n.a.	n.a.		
Lithuania	Eel																					n.a.	n.a.
	Salmon										n.a.								n.a.	n.a.			
	Sea trout										n.a.								n.a.	n.a.			
Poland	Eel	1					1	1	1		1	1	1	0					1	1	0	n.a.	n.a.
	Salmon	1					1	1	1		n.a.	1	1	0					0	n.a.	n.a.		
	Sea trout	1					1	1	1		n.a.	1	1	0					1	n.a.	n.a.		
Germany	Eel	1					1	1	n.a.		1	1	1	0					1	0	1?	n.a.	n.a.
	Salmon	1					0	0	0		n.a.	0	0	0					(1)	n.a.	n.a.	n.a.	n.a.
	Sea trout	1					0	0	0		n.a.	0	0	0					(1)	n.a.	n.a.	n.a.	n.a.
Denmark	Eel	1					1	1	1		1	0	1	0					1	1	0	n.a.	n.a.
	Salmon										n.a.									n.a.	n.a.		
	Sea trout										n.a.									n.a.	n.a.		
n.a. = not applicable 0/1 etc. = DCF/EUMAP (1) = partial data collection																							

Recommendations for **WGBAST**

• WGBAST to consider and report any benefits to Atlantic salmon and sea trout assessment of regional coordination of data collection in the Baltic.
• The Regional Database can be modified to better incorporate the data collected for salmon, sea trout and eels under the DCF. The WGBAST, WGNAS and WGEEL are asked to list the data types that should be incorporated in the RDB to achieve this.
• WGBAST to work out the optimal approach for selecting the appropriate index rivers in the Baltic

Recommendations and Questions for **WGNAS** to address

Questions for WGNAS to address:
• What are the data needs for the individual EU member states in order to conduct an annual assessment for Atlantic salmon?
• Which are the appropriate management units for these assessments?
• Which are the appropriate rivers where data should be collected, and what is the rationale for selecting these particular rivers?
Recommendation for WGNAS
• WGNAS to consider and report any benefits to Atlantic salmon assessment of regional coordination of data collection in the North Sea & Eastern Arctic, and North Atlantic RCG regions.
• The Regional Database can be modified to better incorporate the data collected for salmon, sea trout and eels under the DCF. The WGBAST, WGNAS and WGEEL are asked to list the data types that should be incorporated in the RDB to achieve this.

Recommendations for **WGEEL** to address

Recommendations for WGEEL, North Sea & Eastern Arctic & North Atlantic RCG
• WGEEL to consider and report any benefits to eel assessment of regional coordination of data collection in the North Sea & Eastern Arctic, and North Atlantic RCG regions.
• WGEEL to advise on data quality indicators, the quality of data supplied by MS, the effect of these qualities on the assessments, and therefore identify any significant improvements in data quality required.
Recommendations for WGEEL, Mediterranean & Black Sea RCG
• Mediterranean & Black sea RCG to consider and report any benefits to eel assessment of regional coordination of data collection in the Mediterranean.
• WGEEL to consider and report any benefits to eel assessment of regional coordination of data collection in the Mediterranean.
Recommendations for WGEEL
• WGEEL to work out the optimal approach for selecting the appropriate index rivers in the Baltic
• The Regional Database can be modified to better incorporate the data collected for salmon, sea trout and eels under the DCF. The WGBAST, WGNAS and WGEEL are asked to list the data types that should be incorporated in the RDB to achieve this.

Annex 11 – Annual Meeting Sub group Outcome: ubgroup: Landing obligation

Experiences to date and future plans

It is clear that discards will continue under various forms of exemptions (high survivability, de minimis, prohibited species etc). This obliges continued observer programs under the DCF and adds to the complexity of interpreting official catch records and observer data collected onshore and offshore. In 2016 the RCMNA proposed an intersessional task group to continue monitoring the impact of the landing obligation on data collection and catch estimates.

STECF PLEN 17-01 stated that there would appear to be a “lack of reporting by vessel operators of fish discarded under exemptions, discards of fish currently not subject to the landing obligation and catches of fish below MCRS”. This statement is validated by the lack of data coming from the control agencies on both registered discards and BMS landings. STECF PLEN 17-01 also states that “if the data situation does not improve and the true quantities being caught as reported do not reflect the actual removals, they may have a significant impact on the quality of scientific advice”.

Initially the RCM Chairs met intersessionally and circulated the opportunity for MS to contribute to an intersessional subgroup but beyond some preparatory work before this year RCMs there was no intersessional work required. To capture the practical issues and perceived concerns a simple draft template to capture MS experiences relating to current and pending discard plans was amended to cover the species/fisheries/fleets under the obligation in the North Atlantic (Figure 11) This was circulated to all MS before the RCMNA with instructions to complete them for review at the RCM and in addition for WGCATCH 2017.

The RCM template tries to keep a running record of the issues encountered by MS and perceived issues relating to the anticipated discard action plans for the coming years.

Apart from the pelagic and industrial fisheries, 2017 was the second year that demersal fisheries in the North Atlantic were affected by the landing obligation. In the uploaded data in the RDB for 2016 landings only one country noted that they had logbook registered discards. In addition none of the countries registered any BMS landings. RCG NA would encourage all MS to check their uploaded data and check if there are any BMS or REGDIS faction in the data and to upload.

The text below summarises the key findings to date from the submitted responses. Responses were received from all countries except France.

Monitoring the impact of the landing obligation on data collection

		Country: England			
		Past 2015	Current 2016	Current 2017	Pending 2018
Landing obligation	Species	Pelagic and Industrial	+ haddock, nephrops, hake, sole, whiting	+ plaice, megrim	+saithe
	Gears		Fishery based	Fishery based	Fishery based
	Comments		List of vessels identified by threshold criteria. Exemptions and de-minimus	List of vessels identified by threshold criteria. Exemptions and de-minimus	+ thresholds lowered or eliminated in directed fisheries for hake, whiting, Nephrops and sole
1	<i>Has the MS successfully adapted or implemented their onshore sampling programme?</i>				
	Modified sample sheets	No	No	No	
	Modified databases	Not tested	Yes	Yes	
	Sampling procedures	No	Not tested	Not tested	
	If yes - how? If no - why not?	We currently do not sample these fisheries.	Our sampling sheets are generic and will record BMS landings as another category of landings. We have reviewed our systems and will be able to add the category of landings to the 'Source' on the database. We do not know how these landings will be treated at each landing point yet. BMS landings are deposited in a communal container (a skip). Access is limited and unless you see the vessel land you do not know who the fish belongs to or whether the landings are mixed.	Current programme does not provide opportunity for sampling BMS landings directly. BMS landings are not available or accessible at the source for HUC landing samples. We are reviewing the need to create a devoted programme if the BMS landings become significant or accessible elsewhere.	
2	<i>Has the MS successfully adapted or implemented their offshore sampling programme?</i>				
	Modified sample sheets	No	No	No	
	Modified databases	No	No	No	
	Sampling procedures	No	No	No	
	If yes - how? If no - why not?	We currently do not sample these fisheries.	Catch quota vessels (CCTV pilot) have been historically sampled as part of the current observer programme and the retained unwanted component is given a specific category code. The database can handle the length data. The generic sample sheets do not need changing. The database does need to be amended to accept the age data for this category.	Procedure has been adopted to accept the age data for this category.	
3	<i>Has there been issues getting access to vessels and all components of the catch and landings (incl. BMS landings)?</i>				
	Onshore	No	No	Yes	
	If yes - what? Percieved, anecdotal, measureable?		BMS landings are deposited in a communal container (a skip). Access is limited and unless you see the vessel land you do not know who the fish belongs to or whether the landings are mixed.	HUC landings available but samplers do not get notice of whether BMS landings should be available. Communal containers are not sampleable.	
	Offshore	No	Not tested	Not tested	
	If yes - what? Percieved, anecdotal, measureable?	Only percieved - a slight increase in refusal rates for other fisheries sampled. Possibly an indication of discontent overall rather than directly as a consequence of the landing obligation.	The fisheries affected by these landing obligations will fall within our observer programme 2016. It is unknown how the enforcement of this obligation has affect our access - refusal rates are recorded.	Refusal rates are recorded but other issues with fisheries management appear to have had more effect on our access. Some anecdotal references to the landing obligation but quota and closures are the main issues.	

Figure 11 Example of a completed template kept live on the RCM SharePoint.

4	Is there any evidence that your control agencies can collect data on the new landing fraction and additional data on discards?	Yes	Yes	Yes	
	If yes - what? Perceived, anecdotal, measureable?	From discussions with control agency reps. Our National database has BMS code and facility for including this data. Have not reviewed what has been recorded for these fisheries. It is unclear how the sales note data currently used to monitor the under 10m fleet will be able to record the unsold component of the BMS landings.	Meetings have been proposed between the Control agencies and NCS and Science agencies to review how this data might be managed or extracted in a useable form. Within the UK this has been resolved.	BMS landings are being recorded from industry returns.	
	If no - why not?				
5	Is there any evidence of an effect on the quality of data?				
	Discard estimates	No	Not tested	Not tested	
	If yes - what? Perceived, anecdotal, measureable?		Perceived. Complexities of the exemptions and confusion within the industry affects how observers might record the different components of the catch - interpretable but no comparison with control data made yet.	Still only perceived. The occurrence of retained BMS in the catches are rare. The amounts of BMS recorded are negligible and because of current exemptions it is unclear whether discards are accidental or exempted.	
	Control data - Landings data (logbook, sales notes)	No	Not tested	Not tested	
6	Is there any evidence of a change in fishing behaviour? Technical (fishing gear, sorting processes) and tactical (fishing grounds and seasons)?	No	No	No	
	If yes - what? Perceived, anecdotal, measureable?				
	If measureable - have you or will you need to account for this in your programme?				
7	Is the MS doing any analysis for any observer effect	No	No	No	
	If yes - what?				

Figure 11 ...continued.

On shore sampling programme: Some countries have managed to implement an on shore programme for sampling BMS (UK-SCO). England have reported that it is difficult to sample BMS landings which are not available or accessible and are reviewing their current sampling programmes to include these. For Ireland some token BMS landings have been observed but not sampled. Northern Ireland have included the catch category into their databases. Some other countries (ESP -Aztí) have exemption for their fleets for this year but are able to handle future collection of data. ESP-IEO have not noted any BMS landings during their onshore sampling programme. BEL have modified their databases.

Off shore sampling programme: GER, NLD, IRL, UK, PT, ESP-Aztí– have implemented changes to capture data including length and age for BMS species by UK SCO and ENG. Some countries (ESP-IEO) have not have observed any changes in the operations but they are ready to collect data in the required format. According to last year's submission France were to conduct a pilot study, however no further updates were received.

Issues getting access to vessels and landing components: Most countries have some comments implying that there are issues in accessing vessels for off shore sampling with some countries (UK ENG BEL and IRL) saying that there are increased access issues but cannot directly be related to the landing obligation but could be part of quota and TAC restrictions and closed areas. Some countries are now recording refusal rates. For on shore sampling there are issues identifying what vessel, what species, category and volume of species that are being landed.

Collection of data by control agencies: Generally MS state that their control agencies are now in a position to collect data on BMS landings. However no BMS landings can be found in the RDB, one country (BEL) has recorded minimal registered discards.

Effect on the quality of data: Generally there are perceived effects by countries but no measurable analysis has been done as yet by any country. However, ESP-IEO still expects that the random selection of trips will be affected. NLD are looking at onboard CCTV in the pelagic fleet to sample catches in order to improve the quality of data collected at sea. The complexity of the LO creates confusion for the fishermen but it is unclear whether it is impacting the quality of data

Change in Fishing Behaviour: Generally anecdotal information by some countries but no formal analysis done by MS.

Data Analysis: No analysis being done as yet.

The RCMs need to continue to monitor the impact of the annual update of complex discard action plans on fisher behaviour and national sampling schemes. In 2018 an intersessional group will need to review MS template returns and the RDB data once BMS data is available and compare the different metrics which could highlight the scale of any uncertainties and potential gaps in sampling schemes. See recommendation No RCM NA x for details.

In addition WGCATCH are keeping this topic as a rolling task in their meeting and their conclusions are very similar to that of the RCG NA.

"WGCATCH recommends that by the end of the first year of the landing obligation, Member Countries analyse the information on catches from vessels operator systems, registered buyers and sellers, logbooks and from independent scientific observations during the implementation phase of the landing obligation and carry out some of the analyses proposed by WGCATCH 2014 (ICES 2015a) with the aim of supporting the estimation of unreported discards and BMS landings and identifying changes in fishing behaviour and discard patterns under the landing obligation. WGCATCH further recommends that Member Countries document the sampling and estimation procedures they use during the adaptation to the LO to keep the process transparent and possible to evaluate at a future occasion."

RCG NA would also like to remind countries when answering the RDB data call in future years that they are mindful of reporting/uploading data relating to BMS landings or registered discards.